MIDLAND PUBLIC SCHOOLS FACILITIES DEPARTMENT RFP SPECIFICATIONS FOR “PAINTING SERVICES AT MIDLAND HIGH SCHOOL, NORTHEAST MIDDLE SCHOOL, JEFFERSON MIDDLE SCHOOL AND MIDLAND HIGH LIGHT POLE PAINTING”

**SCOPE:**

1. The Successful Bidder shall provide all labor, materials, equipment and on site supervisory oversight necessary for the work indicated in the bid specifications.

2. The required materials, procedures and work to be completed are indicated on the specifications and plans attached.

3. All buildings, grounds and equipment shall be protected by the Successful Bidder from damage which might be done or caused by work performed under this contract. Any damage caused directly or indirectly by the Successful Bidder’s agents or suppliers shall be repaired and/or replaced at the expense of the Successful Bidder by methods approved by Midland Public Schools to restore the damaged area(s) to its original condition. Midland Public Schools shall deem such repairs acceptable only after inspection and approval.

4. All new materials shall be asbestos free and applied in accordance with the appropriate manufacturer’s recommendations.

5. The Successful Bidder shall be responsible to protect all items and equipment from dust, overspray and any other unintended areas being painted. Contractor is responsible for removing paint from any area or material that was not in the bid specification.

6. Contractor will be required to use areas designated by the district to clean and store equipment and materials. Equipment should not be cleaned in any other area. Contractor will be required to keep this area clean at all times.
7. The contractor will be responsible to properly dispose of all empty material containers according to local, state and federal law.

Warranty

Contractor shall warranty materials and installation of all components for a period of 12 months from the date of job completion. If, within the time periods set forth in the foregoing warranty any of the work is found to be defective or not in accordance with the terms of this RFP, the contractor is required to fix and repaint area.

Manufacturers

Contractor is required to use PPG Paints and follow manufactures specifications attached to this RFP.

Paint Colors

Paint colors are to match existing colors unless noted in drawing included in the RFP. If wall indicated to be painted at Midland High has an accent color, the wall should be painted to match the rest of the room (see project manager if you have questions).

Surface Preparations

- Remove oil, dust, dirt, loose rust, peeling paint or other contaminations to ensure good adhesion.

- All unused anchors should be removed from the wall and areas patched before painting.

- All areas should be patched that have prior damage using drywall compound or block filler.

- All areas patched should have a smooth level surface matching existing area.

- Damaged drywall corner beads should be repaired or replaced if necessary.

- The district will be responsible to remove items hanging from the walls and replace.
• District will mark old anchors to be removed and patched.

Extra Material:
Contractor is required to supply 1% of each color of paint at each location. This should be rounded to the nearest gallon and left in unopened containers only. Any partial containers of paint must be removed from the job site at completion of work. All paint must be properly marked indicating color and date.

Bidders Qualifications:
Successful Bidder’s firm shall specialize in work indicated or must sub-contract work to a qualified contractor approved by the district. All work under the contact shall be performed by skilled workers in accordance with applicable Federal, State and local governing codes. The Successful Bidder shall be responsible at all times for the work and actions of its employees. Bidders must list five recent references in area provided.

Contractor is responsible for all measurements:

Site Visit/Mandatory Pre-Bid Walk
Contractors are required to walk the site to determine the scope of work, equipment and materials required. A mandatory walk will take place at the specified date, time and place indicated below.

Meet: MPS Administration Building 600 East Carpenter St. Midland Mi. 48640
Date: March 2, 2020
Time: 2:30pm
Will travel to Jefferson, Northeast and Midland High after Pre-Bid meeting.

Michael Moeggenberg
Director of Facilities and Operations
Midland Public Schools
989-923-5035
moeggenbergmj@midlandps.org
**Bid Performance Security**

A Bid Security in the amount of five percent (5%) of the Base Bid shall accompany each proposal or proposal combination. The Bid Security may be in the form of a Cashier’s Check, or Money Order. Personal checks are not acceptable. Bid Performance Security may be used by the district if work specified in this RFP is not completed on time or to specification in this RFP.

**Safety**

The Contractor shall be responsible for compliance with all applicable federal and state laws, codes, and regulations, including but not limited to MIOSHA and the Right-to-Know.

**Fines for MIOSHA Violations**

If the District is assessed any fines for MIOSHA violations arising out of these contract services and attributable to the Contractor, the Contractor shall reimburse the District for these.

**Permits**

The contractor is required to obtain and pay for any required permits both state and local.

**Insurance Requirements**

The Contractor will provide the District with the required insurance certificates before the Contractor is awarded the contract. These certificates of insurance shall be submitted to the District’s Facilities Department. Once contract is awarded, Midland Public Schools will need to be added as an additional insured to the insurance policies.

**Minimum Required Insurance Limits**

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<td>Minimum Limits</td>
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</tbody>
</table>
Property Damage
Each Occurrence $1,000,000
Aggregate $2,000,000
Excess Liability (Umbrella)
Each Occurrence $5,000,000
Aggregate $10,000,000
Fidelity/Employee Dishonesty Bond $50,000

Automobile Liability (Including Hired & Non-Owned)
Personal Injury/Bodily Injury
Each Occurrence $1,000,000
Or Combined Single Limit $1,000,000
Property Damage
Each Occurrence $500,000

The Contractor must also provide all of its employees working on this contract with Workers’ Compensation insurance. The District will not be responsible for any job related injuries to the Contractor’s employees. Contractor will provide the District with proof of insurance with at least the following coverage limits:

Minimum Limits
Coverage A Statutory
Coverage B as follows:
Each Accident $500,000
Disease - Policy Limit $1,000,000
Disease - Each Employee $500,000

Bid Information
Bids will be accepted until 2:00 P.M. local time on March 9, 2020, at which time bids will be opened and read aloud for presentation to the Board of Education at their next regularly scheduled meeting. No oral, telephonic or facsimile proposals will be considered. No proposals will be considered after time of closing of bids other than an act of God, determined by the district.

Owners Rights
The Board of Education reserves the right to accept or reject any or all item(s) in the bid; to accept or reject any or all bid(s); to waive any informalities therein; or for any reason, to award the contract to other than the low bidder. If a unit price or extended price is obviously in error and the other is obviously correct, the incorrect price will be disregarded.
All bids shall be firm for one hundred eighty days (180) from the date of the bid opening. All bids must include a signed “Iran Economic Sanctions Act Certification” “Compliance with School Safety Initiative Legislation” and a “Familial Relationship Disclosure form” (enclosed with documents).

All bids must be submitted on the attached bid form and signed by the bidder. Two (2) copies of the bid form should be addressed to the attention of:

Michael Moeggenberg  
Director of Facilities and Operations  
Midland Public Schools  
600 East Carpenter Street  
Midland, Michigan 48640  

“Midland Public Schools Painting Summer 2020”  

One (1) copy of the bid form should be retained for your files. Questions should be referred to Michael Moeggenberg, Director of Facilities and Operations at 989-923-5035 or moeggenbergmj@midlandps.org

Work Timeline

The work shall start after June 15, 2020 and shall be completed by August 17, 2020. Any changes in this schedule must be approved by the district. Vendors responding to this RFP agree that the project being proposed can be completed by August 17, 2020. Date of completion stated in the proposal shall become part of the contract.

Instruction to Bidders

1. It shall be the bidder’s responsibility to read this entire document, review all enclosures and attachment, and comply with all requirements specified within.
2. Bids received after the scheduled opening time will not be accepted unless determined an act of God by the district.
3. The only bids accepted will be hard copy paper bids.
4. No bid may be withdrawn, changed or modified in any way for a period of one hundred eighty (180) calendar days from date of bid opening.
5. Negligence on the part of the bidder in preparing the bid confers no rights for the withdrawal of the bid after it has been opened.
6. Bids received prior to time of opening will be kept securely unopened. No responsibility will be attached to school district employee who prematurely opens an inco-rectly addressed bid proposal.

7. If either a unit price or extended price is obviously in error or the other is obviously correct, the incorrect price will be disregarded.

8. Midland Public Schools is exempt from state and federal taxes.

9. All bids are subject to acceptance by Midland Public Schools Board of Education which reserves the right to accept or reject any or all bids, to split awards by items, to waive irregularities or defects, and accept other than the low bid when deemed to be in the best interest of Midland Public Schools.

10. The laws of the State of Michigan shall govern rights, obligations, and remedies of the Parties under this bid and any agreement reached through this process.

11. All information included in a bid response is subject to the Freedom of Information Act and may be disclosed in its entirety after the formal, public bid opening has been completed.

12. By submission of the proposal, the bidder certifies that the pricing structure offered has been arrived at independently without consultation, communication, or agreement of such prices for the purpose of restricting competition with any other bidder or competitor.

13. The bidder agrees to hold and save Midland Public Schools, its officers, agents and employees harmless from liability of any kind, including costs and expenses, with respect to any claim, actin, cost or judgment for patent, copyright or trademark infringement arising out of the purchase or use of equipment, materials, supplies, or services covered by this bid document.

14. The contractor shall provide items of a minor nature, not specifically noted in these specification, so as to provide a complete, operable and Owner acceptable service.

15. Contractors are required to comply with the Safety Rules and Accident Prevention plan. The district reserves the right to exclude any worker(s) from the job site(s) for violation of these work rules or any other such offenses deemed inappropriate by the District.

16. The contractor shall clean their job area daily and dispose of all trash and debris leaving the area broom clean.

17. It is the responsibility of the contractor/bidder to field verify all existing field conditions. Bidders shall inspect the work site and take such steps as may be reasonably necessary to ascertain the nature of the work; and general and local conditions which can affect the work or cost thereof. Failure to do so will not relieve the bidders from responsibility for estimating properly the difficulty or cost of successfully performing the work.

18. The sites are available for your inspections by appointment.
**PROPOSAL FORM**

<table>
<thead>
<tr>
<th>Location</th>
<th>Amounts</th>
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<tbody>
<tr>
<td>Midland High School</td>
<td>$ _____</td>
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<tr>
<td>Northeast Middle School</td>
<td>$ _____</td>
</tr>
<tr>
<td>Jefferson Middle School</td>
<td>$ _____</td>
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<tr>
<td>Midland High Exterior Light Pole Painting</td>
<td>$ _____</td>
</tr>
<tr>
<td>Grand Total</td>
<td>$ _____</td>
</tr>
<tr>
<td>Hourly Rate</td>
<td>$ _____</td>
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<tr>
<td>Overtime Rate</td>
<td>$ _____</td>
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</tbody>
</table>

Please Describe Scope of Work to Include Time Frame of Work and any exception to RFP scope of work or materials
My signature certifies that the proposal as submitted complies with all Terms and Conditions as set forth in this RFP.

Signature_______________________________________

Date: ______________________________________

Firm Name: __________________________________

Address: ______________________________________

City: ___________________ State: ___________________ Zip: ____________

Contact: ______________________________________

Telephone Number: ___________________________

E-Mail Address: ______________________________

**VENDOR: LIST FIVE RECENT REFERENCES, PREFERABLY SCHOOL DISTRICTS**

<table>
<thead>
<tr>
<th>School District/Company</th>
<th>Contact Person</th>
<th>Phone Number</th>
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</table>
Iran Economic Sanctions Act Certification

I am the ______________________ (insert title) of ___________________ (insert bidder company name), or I am bidding in my individual capacity ("Bidder"), with authority to submit a binding bid for the provision of RFP. I have personal knowledge of the matters described in this Certification, and I am familiar with the Iran Economic Sanctions Act, MCL 129.311, et seq. ("Act"). I am fully aware that the school district will rely on my representations in evaluating bids.

I certify that Bidder is not an Iran-linked business, as that term is defined in the Act. I understand that submission of a false certification may result in contract termination, ineligibility to bid for three (3) years, and a civil penalty of $250,000 or twice the bid amount, whichever is greater, plus related investigation and legal costs.

Signature ______________________
Affidavit of Bidder—Compliance with School Safety Initiative Legislation

The undersigned, the owner or authorized officer of ________________________ (the “Bidder”), certifies to Midland Public Schools (the “School District”), that any and all persons who will work directly or indirectly for the Bidder, including, but not limited to, Bidder’s employees, agents, vendors, subcontractors or consultants, and who will work at or on any School District property, shall at all times be in compliance with MCL 380.1230, 380.1230a, 380.1230c, 380.1230d, and 380.1230g and have not been convicted of any “listed offenses”. The Bidder further warrants and represents that all persons who will work directly or indirectly for the Bidder, including, but not limited to, Bidder’s employees, agents, vendors, subcontractors or consultants, and who will work at or on any School District property, shall at all times be in compliance with MCL 380.1230, 380.1230a, 380.1230c, 380.1230d, and 380.1230g. In this regard, Bidder agrees, without limitation, to report within 3 business days to the School District when any such person is charged with a crime listed in Section 1535a(1) of the Revised School Code or a substantially similar law, and to immediately report to the School District if that person is subsequently convicted, plead guilty or plead no contest to that crime.

BIDDER: __________________________

By: ________________________________

Its: ________________________________
Affidavit of Bidder – Familial Relationships Form

The undersigned, the owner or authorized officer of ______________________ (the "Bidder"), pursuant to the familial disclosure requirement provided in the ______________________ (the "School District") advertisement for construction bids, hereby represent and warrant, except as provided below, that no familial relationships exist between the bidder(s) or any employee of ______________________, and any member of the Board of Education of the School District or the Superintendent of the School District.

List any Familial Relationships:

BIDDER: ______________________

By: ______________________

Its: ______________________

STATE OF MICHIGAN )
 )ss.
COUNTY OF ___________

This instrument was acknowledged before me on the _____ day of __________, 2020, by ______________________.

________________________________, Notary Public

____________________ County, Michigan

My Commission Expires: __________

Acting in the County of: __________
Measurements indicate walls to be painted.

The floor that were previously painted should be repainted to match existing colors.

All interior room metal door frames leading into the hallways that were previously painted should be repainted to match existing colors.

Measurements indicate walls painted to match existing colors.

Scale: 2/23/2022

SETT:

Facilities Department
Midland Public Schools
1st Floor Painting

Midland High School
All interior room metal doorframes leading into the halls that were previously painted should be painted to match existing.

Measurements indicate walls to be Shank.
All interior room metal doorframes leading into the halls that were previously painted should be painted to match existing.

Measurements Indicate Walls to be Painted.
All metal doorframes in areas indicated to be painted should be painted to match existing. Measurements indicate walls to be painted.
COATINGS SUBMITTAL

For

Midland Public Schools

PROJECT:

2020 Maintenance Painting

Prepared By:
Cory Kabobel
Sales Representative
PPG
4850 Fashion Square Blvd
Saginaw, MI 48604
Telephone: (989)793-1672
Fax: (989)793-7759
Midland Public Schools – 2020 Maintenance Painting – Int. Painting, Ext Light Poles & Doors/Frames

Interior/Exterior Doors & Frames

Surface Preparation: Hand tool clean/power wash to remove peeling paint, loose rust and surface contaminates.

1. Prime Coat: 4160 Tank & Structural Primer (spot prime where needed)
2. Finish Coat: 4308 Devguard Industrial Enamel Gloss - 2 coats

Interior CMU & Drywall:

Surface Preparation: Inspect all areas for alkyd or epoxy coatings. If alkyd or epoxy coatings are present, the substrate must be primed prior to painting. If existing coating is latex, it can be cleaned and repainted

1. Prime Coat: 17-921X1 Seal-Grip Primer

Exterior metal light poles

Surface Preparation: Hand tool clean/power wash to remove peeling paint, loose rust and surface contaminates.

1. Prime/Finish Coat: 95-3300 Durethane DTM Urethane Mastic 3-5mils DFT.
**GENERAL DESCRIPTION**

Our premium interior/exterior acrylic primer is formulated to meet the performance requirements of the residential and commercial segments. Seal Grip Universal Primer/Sealer is especially formulated to block most stains - water, smoke, ink, markers, and tannin. Seal Grip Universal Primer/Sealer has exceptional adhesion to glossy surfaces. Also recommended as a whole house primer for use on properly prepared interior or exterior wood, masonry, plaster, wallboard, cement, brick, stucco, cement composition board, aluminum and wall coverings.

**RECOMMENDED SUBSTRATES**

<table>
<thead>
<tr>
<th>Aluminum Siding</th>
<th>Masonry</th>
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<tbody>
<tr>
<td>Brick</td>
<td>MDO Board</td>
</tr>
<tr>
<td>Concrete</td>
<td>Plaster</td>
</tr>
<tr>
<td>Fiber Cement</td>
<td>Stucco</td>
</tr>
<tr>
<td>Fiberglass</td>
<td>Vinyl Siding</td>
</tr>
<tr>
<td>Gypsum Wallboard</td>
<td>Drywall</td>
</tr>
<tr>
<td>Drywall Wood</td>
<td>Wood</td>
</tr>
</tbody>
</table>

**CONFORMANCE STANDARDS**

VOC compliant in all regulated areas
MPI approved in categories 3, 6, 17, 39, 137 and 174

**TINTING AND BASE INFORMATION**

17-921XI White (Tintable)
17-922XI Deep Base*

*Must be tinted before use

Refer to the appropriate color formula book, automatic tinting equipment, and or computer color matching system for color formulas and tinting instructions.

Some colors, drastic color changes, or porous substrates may require more than one coat to achieve a uniform finish.

**PACKAGING**

1-Gallon (3.78 L)
5-Gallon (18.9 L)

Not all products are available in all sizes.

**FEATURES / BENEFITS**

**Features**
- Great hide
- Outstanding stain and tannin blocking
- Low VOC, <50 g/L
- Interior/Exterior Universal Formula
- Fast drying
- Excellent adhesion
- Mildew resistant coating

**Benefits**
- Saves time and money: Better coverage in less coats
- Great at blocking out most stains - water, smoke, ink, markers, and more
- Nationally VOC compliant
- Use as a whole house primer on multiple substrates
- Topcoat can be applied in as little as one hour
- Adheres to glossy surfaces
- Mildew and fungal growth resistance on the paint film

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Read Label and Safety Data Sheet Prior to Use. See other cautions on last page.

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17-921XI Series
GENERAL SURFACE PREPARATION

Surface must be clean and dry. Remove dirt, mildew, grease and other surface contamination. Remove loose paint, excessive amounts of chalk, and efflorescence by wire brushing, scraping, sanding, and/or pressure washing. Repair all moisture problems. Blistering and peeling issues are commonly caused by moisture behind the paint film. Putty all nail holes, and caulk all cracks and open seams. Sand all rough, and patched surfaces. Sanding is not required if the surface is properly and thoroughly cleaned.

WARNING! If you scrape, sand, or remove old paint, you may release lead dust or fumes. LEAD IS TOXIC. EXPOSURE TO LEAD DUST OR FUMES CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a properly fitted NIOSH-approved respirator and prevent skin contact to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the USEPA National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead. In Canada contact a regional Health Canada office. Follow these instructions to control exposure to other hazardous substances that may be released during surface preparation.

ALUMINUM SIDING and FIBERGLASS: Aluminum siding and fiberglass may present potential adhesion problems. Prime prior to topcoating. Primer should be spot applied, allowed to cure overnight, then evaluated for adhesion. Check adhesion by applying a piece of masking tape. If adhesion is good, the application may proceed. If the coating peels off when the masking tape is removed, the surface must be scuff sanded prior to proceeding to ensure mechanical adhesion.

BRICK, CONCRETE, MASONRY and STUCCO: New concrete and masonry should cure for at least 7 days and preferably 30 days prior to priming and painting. The pH of the substrate must be less than 13 before priming. Painting glazed brick is not recommended due to potential adhesion problems.

GYPSUM WALLBOARD-DRYWALL: Nails or screws should be countersunk, and they along with any indentations should be muddled flush with the surface, sanded smooth and cleaned to remove any dust, then prime prior to painting the substrate.

FIBER CEMENT: Fiber cement board may present potential adhesion, alkali burn, and efflorescence problems. New board should be aged for at least 7 days and preferably 30 days prior to priming and painting. The pH of the substrate must be less than 13 and the moisture content must be less than 12% prior to priming and topcoating. All cracks and opens seams should be caulked to prevent water penetration. Pre-primed board from the manufacturer may not be uniformly or completely sealed. It is recommended that a primer be applied to ensure complete and uniform sealing prior to topcoating.

MEDIUM DENSITY OVERLAY (MDO) BOARD: Countersink all nails or screws and putty flush with the surface. Surface should be sanded smooth and cleaned to remove any dust or contaminates, then primed prior to painting.

PLASTER: Plaster, hardcoat, skim coat, or other alkaline surfaces should be allowed to cure for at least 7 days and preferably 30 days prior to priming.

VINYL SIDING: Vinyl siding may present potential adhesion problems. Primer should be spot applied, allowed to cure overnight, then evaluated for adhesion. If adhesion is good, the application may proceed. Check adhesion by applying a piece of masking tape. When the masking tape is removed, if the coating peels off, the surface must be scuff sanded prior to proceeding to ensure mechanical adhesion. Color selection for vinyl siding is limited. Do not paint vinyl siding with a topcoat color darker that the original to prevent potential warping due to heat absorption.

WOOD: Unpainted wood or wood in poor condition should be sanded smooth, wiped clean, then primed. Any knots or resinous areas must be primed before painting. Countersink all nails, putty flush with surface, then prime. Staining or tannin bleeding woods (like cedar or redwood) require two coats. The first coat must be completely dry before re-coating. For optimum tannin blocking performance, allow the first coat to dry a full 24 hours prior to the application of a second coat.

RECOMMENDED PRIMERS

Concrete Block (CMU) 6-15X1

LIMITATIONS OF USE

Apply when air and surface temperatures are 35°F (2°C) and surface temperature is at least 5°F (3°C) above the dew point. For optimum application properties, bring material to at least 60°F (10°C) prior to application. Air and surface temperature must remain above 35°F (2°C) for the next 24 hours. Avoid painting late in the day when dew and condensation are likely to form or if rain or snow is expected. Do not apply in direct sunlight. PROTECT FROM FREEZING.

LIMITATIONS OF USE (continued)

Vinyl siding and similar plastic composites should not be painted with a color darker than the original color. Painting vinyl siding or plastic composites with a darker color may cause them to warp. Color selection for use over vinyl siding is limited. For information, call 1-800-441-9695.

While this product provides a mildew resistant coating, growth may still occur if the substrate is not properly prepared prior to painting and/or if the substrate is consistently exposed to conditions conducive to mold, mildew, and algae.
APPLICATION INFORMATION

Stir thoroughly before using and occasionally when in use. When using more than one can of the same color, intermix to ensure color uniformity. USE WITH ADEQUATE VENTILATION. KEEP OUT OF REACH OF CHILDREN. Read all label and Safety Data Sheet (SDS) information prior to use. SDS are available through our web site or by calling 1-800-441-9695.

Application Equipment: Apply with a high quality brush, roller, paint pad, or by spray equipment. Severe stains may require two coats of primer. Brushing is the preferred method of application over chalky substrates. If painting will be interrupted for more than 15 minutes, keep brushes and rollers wet by wrapping them in tinfoil or plastic wrap.

Airless Spray: Pressure 2000 psi; tip 0.015" - 0.021". Spray equipment must be handled with due care and in accordance with manufacturer’s recommendation. High-pressure injection of coatings into the skin by airless equipment may cause serious injury.

Brush: Polyester/Nylon Brush
Roller: 3/8" - 3/4" nap roller cover
Thinning: Do not thin.

Permissible temperatures during application:
- Material: 35 to 90°F; 2 to 32°C
- Ambient: 35 to 100°F; 2 to 38°C
- Substrate: 35 to 100°F; 2 to 38°C

PRECAUTIONS

WARNING! HARMFUL IF INHALED. HARMFUL IF SWALLOWED. CAUSES RESPIRATORY TRACT IRRITATION. Do not breathe vapor or mist. Do not swallow. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling. Provide fresh air ventilation during and after application and drying. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this preparation. Use personal protective equipment as required. Note: These warnings encompass the product series. Prior to use, read and follow product-specific SDS and label information. FIRST AID: If swallowed, rinse mouth with water (only if the person is conscious). Call physician immediately. Do not induce vomiting unless directed to do so by medical personnel. If in eyes, rinse with water for 15 minutes. Check for and remove any contact lenses. If on skin, rinse well with water. Wash with soap and water. Get medical attention if irritation develops. If inhaled, remove to fresh air. Call physician immediately. Keep out of the reach of children. For workplace use, an SDS is available from your retailer or by calling (412) 492-6555. EMERGENCY SPILL INFORMATION: (412) 434-4515 (U.S.).
SAFETY DATA SHEET

Date of issue/Date of revision 10 April 2019
Version 6

Section 1. Identification

Product name: 17-921X1 PPG PAINTS SEALGRIP INTERIOR/EXTERIOR ACRYLIC PRIMER/SEALER WHITE (TINTABLE)
Product code: 00391739
Other means of identification: Not available.
Product type: Liquid.

Relevant identified uses of the substance or mixture and uses advised against
Product use: Consumer applications, Professional applications, Used by spraying.
Use of the substance/mixture: Coating.
Uses advised against: Not applicable.

Manufacturer: PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

Emergency telephone number: (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
01-800-00-21-400 or + 52 55 5559 1588 (Mexico)

Technical Phone Number: 1-800-441-9695 (8:00 am to 5:00 pm EST)

Section 2. Hazards identification

OSHA/HCS status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture: CARCINOGENICITY - Category 1A

Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 24.5% (Oral), 37.6% (Dermal), 28.1% (Inhalation)

This product contains TiO2 which has been classified as a GHS Carcinogen Category 2 based on its IARC 2B classification. For many PPG products, TiO2 is utilized as a raw material in a liquid coating formulation. In this case, the TiO2 particles are bound in a matrix with no meaningful potential for human exposure to unbound particles of TiO2 when the product is applied with a brush or roller. Sanding the coating surface or mist from spray applications may be harmful depending on the duration and level of exposure and require the use of appropriate personal protective equipment and/or engineering controls (see Section 8).

GHS label elements
Section 2. Hazards identification

Hazard pictograms:

Signal word: Danger
Hazard statements: May cause cancer.

Precautionary statements
General: Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing.
Response: IF exposed or concerned: Get medical attention.
Storage: Store locked up.
Disposal: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements: Contains isothiazolinones. May cause allergic reaction. Sanding and grinding dusts may be harmful if inhaled. This product contains crystalline silica which can cause lung cancer or silicosis. The risk of cancer depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications. Emits toxic fumes when heated.

Hazard not otherwise classified: None known.

Section 3. Composition/information on ingredients

Substance/mixture: Mixture
Product name: 17-921XI PPG PAINTS SEALGRIP INTERIOR/EXTERIOR ACRYLIC PRIMER/SEALER WHITE (TINTABLE)

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>titanium dioxide</td>
<td>≥5.0 - ≤10</td>
<td>13463-67-7</td>
</tr>
<tr>
<td>Limestone</td>
<td>≥5.0 - ≤10</td>
<td>1317-65-3</td>
</tr>
<tr>
<td>Talc, not containing asbestiform fibres</td>
<td>≥1.0 - ≤5.0</td>
<td>14807-96-6</td>
</tr>
<tr>
<td>Kaolin</td>
<td>≥1.0 - ≤5.0</td>
<td>1332-58-7</td>
</tr>
<tr>
<td>crystalline silica, respirable powder (&lt;10 microns)</td>
<td>&lt;1.0</td>
<td>14808-60-7</td>
</tr>
</tbody>
</table>

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.
Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

Eye contact: Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.

Inhalation: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Skin contact: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.

Ingestion: If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact: No known significant effects or critical hazards.
Inhalation: No known significant effects or critical hazards.
Skin contact: No known significant effects or critical hazards.
Ingestion: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact: No specific data.
Inhalation: No specific data.
Skin contact: No specific data.
Ingestion: No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments: No specific treatment.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media: None known.
Section 5. Fire-fighting measures

Specific hazards arising from the chemical: In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products: Decomposition products may include the following materials:
- carbon oxides
- metal oxide/oxides

Special protective actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.
Section 7. Handling and storage

Precautions for safe handling

Protective measures: Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Special precautions: If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.

Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities: Do not store below the following temperature: 5°C (41°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>OSHA PEL (United States, 5/2018). TWA: 15 mg/m³ 8 hours. Form: Total dust ACGIH TLV (United States, 3/2018). TWA: 10 mg/m³ 8 hours.</td>
</tr>
<tr>
<td>Limestone</td>
<td>OSHA PEL (United States, 5/2018). TWA: 5 mg/m³ 8 hours. Form: Respirable fraction</td>
</tr>
<tr>
<td>Talc, not containing asbestiform fibres</td>
<td>OSHA PEL Z3 (United States). TWA: 2 mg/m³ ACGIH TLV (United States, 3/2018). TWA: 2 mg/m³ 8 hours. Form: Respirable fraction</td>
</tr>
<tr>
<td>Kaolin</td>
<td>OSHA PEL (United States, 5/2018). TWA: 5 mg/m³ 8 hours. Form: Respirable fraction</td>
</tr>
</tbody>
</table>
Section 8. Exposure controls/personal protection

crystalline silica, respirable powder (<10 microns)

TWA: 15 mg/m³ 8 hours. Form: Total dust
ACGIH TLV (United States, 3/2018).
TWA: 0.025 mg/m³ 8 hours. Form: Respirable
OSHA PEL Z3 (United States, 6/2016).
TWA: 10 mg/m³ / (%SiO2+2) 8 hours. Form: Respirable
OSHA PEL (United States, 6/2016).
TWA: 250 mppcf / (%SiO2+5) 8 hours. Form: Respirable
OSHA PEL (United States, 5/2018).
TWA: 50 μg/m³ 8 hours. Form: Respirable dust

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls: If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures:

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Skin protection: Safety glasses with side shields.
Section 8. Exposure controls/personal protection

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Gloves: For prolonged or repeated handling, use the following type of gloves:

Recommended: Viton®

Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection: Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Section 9. Physical and chemical properties

Appearance

Physical state: Liquid.
Color: White.
Odor: Alcohol-like.
Odor threshold: Not available.
pH: 9
Melting point: Not available.
Boiling point: 100°C (212°F)
Flash point: Closed cup: Not applicable. [Product does not sustain combustion.]
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
Flammability (solid, gas): Not available.
Lower and upper explosive limits: Not available.
Evaporation rate: 0.05 (butyl acetate = 1)
Vapor pressure: 3.3 kPa (25 mm Hg) [room temperature]
Vapor density: Not available.
Relative density: 1.25
Density (lbs / gal): 10.43
Solubility: Partially soluble in the following materials: cold water.
Section 9. Physical and chemical properties

Partition coefficient: n-octanol/water : Not available.
Viscosity : Kinematic (40°C (104°F)): >0.21 cm²/s (>21 cSt)
Volutility : 61% (v/v), 48.291% (w/w)
% Solid. (w/w) : 51.709

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.
Chemical stability : The product is stable.
Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid : When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.
Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
Hazardous decomposition products : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uranium dioxide</td>
<td>LC50 Inhalation Dusts and mists</td>
<td>Rat</td>
<td>&gt;6.82 mg/l</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Limestone</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>6450 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Kaolin</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion

Conclusion/Summary

Skin : There are no data available on the mixture itself.
Eyes : There are no data available on the mixture itself.
Respiratory : There are no data available on the mixture itself.

Sensitization

Conclusion/Summary

Skin : There are no data available on the mixture itself.
Respiratory : There are no data available on the mixture itself.
Section 11. Toxicological information

Mutagenicity
Conclusion/Summary: There are no data available on the mixture itself.

Carcinogenicity
Conclusion/Summary: There are no data available on the mixture itself.

Classification

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>OSHA</th>
<th>IARC</th>
<th>NTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>-</td>
<td>2B</td>
<td>-</td>
</tr>
<tr>
<td>Crystalline silica, respirable powder (&lt;10 microns)</td>
<td>-</td>
<td>1</td>
<td>Known to be a human carcinogen.</td>
</tr>
</tbody>
</table>

Carcinogen Classification code:
- IARC: 1, 2A, 2B, 3, 4
- NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen
- OSHA: +
- Not listed/not regulated: -

Reproductive toxicity
Conclusion/Summary: There are no data available on the mixture itself.

Teratogenicity
Conclusion/Summary: There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talc, not containing asbestiform fibres</td>
<td>Category 3</td>
</tr>
</tbody>
</table>

Specific target organ toxicity (repeated exposure)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crystalline silica, respirable powder (&lt;10 microns)</td>
<td>Category 1</td>
</tr>
</tbody>
</table>

Target organs: Contains material which causes damage to the following organs: eyes. Contains material which may cause damage to the following organs: lungs, cardiovascular system, upper respiratory tract, skin, stomach.

Aspiration hazard
Not available.

Information on the likely routes of exposure

Potential acute health effects

- Eye contact: No known significant effects or critical hazards.
- Inhalation: No known significant effects or critical hazards.
- Skin contact: No known significant effects or critical hazards.
- Ingestion: No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact: No specific data.
- Inhalation: No specific data.
- Skin contact: No specific data.
- Ingestion: No specific data.
Section 11. Toxicological information

**Delayed and immediate effects and also chronic effects from short and long term exposure**

**Conclusion/Summary**: There are no data available on the mixture itself. Contains isothiazolinones. May cause allergic reaction. This product contains crystalline silica which can cause lung cancer or silicosis. The risk of cancer depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications. This product contains TiO2 which has been classified as a GHS Carcinogen Category 2 based on its IARC 2B classification. For many PPG products, TiO2 is utilized as a raw material in a liquid coating formulation. In this case, the TiO2 particles are bound in a matrix with no meaningful potential for human exposure to unbound particles of TiO2 when the product is applied with a brush or roller. Sanding the coating surface or mist from spray applications may be harmful depending on the duration and level of exposure and require the use of appropriate personal protective equipment and/or engineering controls (see Section 8). If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

**Short term exposure**

**Potential immediate effects**: There are no data available on the mixture itself.

**Potential delayed effects**: There are no data available on the mixture itself.

**Long term exposure**

**Potential immediate effects**: There are no data available on the mixture itself.

**Potential delayed effects**: There are no data available on the mixture itself.

**Potential chronic health effects**

**General**: No known significant effects or critical hazards.

**Carcinogenicity**: May cause cancer. Risk of cancer depends on duration and level of exposure.

**Mutagenicity**: No known significant effects or critical hazards.

**Teratogenicity**: No known significant effects or critical hazards.

**Developmental effects**: No known significant effects or critical hazards.

**Fertility effects**: No known significant effects or critical hazards.

**Numerical measures of toxicity**

**Acute toxicity estimates**

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>172587.5 mg/kg</td>
</tr>
</tbody>
</table>

Section 12. Ecological information

**Toxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>Acute LC50 &gt;100 mg/l</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td>Limestone</td>
<td>Acute LC50 &gt;56000 mg/l</td>
<td>Fish</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

**Persistence and degradability**
Section 12. Ecological information

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient ($K_{oc}$): Not available.

Section 13. Disposal considerations

Disposal methods: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

<table>
<thead>
<tr>
<th></th>
<th>DOT</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN proper shipping name</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Transport hazard class (es)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Packing group</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
<tr>
<td>Marine pollutant substances</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

Additional information

DOT: None identified.

IMDG: None identified.

United States
### 14. Transport information

**IATA**: None identified.

**Special precautions for user**: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

### Section 15. Regulatory information

**United States**

**United States inventory (TSCA 8b)**: All components are listed or exempted.

- United States - TSCA 5(a)2 - Proposed significant new use rules:
  - 5-chloro-2-methyl-2H-isothiazol-3-one

**SARA 302/304**

- **SARA 304 RQ**: Not applicable.

**Composition/information on ingredients**

No products were found.

**SARA 311/312**

- **Classification**: CARCINOGENICITY - Category 1A

**Composition/information on ingredients**

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>titanium dioxide</td>
<td>≥5.0 - ≤10</td>
<td>CARCINOGENICITY - Category 2</td>
</tr>
<tr>
<td>Talc, not containing asbestiform fibres</td>
<td>≥1.0 - ≤5.0</td>
<td>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3</td>
</tr>
<tr>
<td>crystalline silica, respirable powder (&lt;10 microns)</td>
<td>&lt;1.0</td>
<td>CARCINOGENICITY - Category 1A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (inhalation) - Category 1</td>
</tr>
</tbody>
</table>

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

**California Prop. 65**

⚠️ **WARNING**: Cancer - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

### Section 16. Other information

**Hazardous Material Information System (U.S.A.)**

**Health**: 2  
**Flammability**: 0  
**Physical hazards**: 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.
Section 16. Other information

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

Health : 2  Flammability : 0  Instability : 0

Date of previous issue : 1/30/2019
Organization that prepared the MSDS : EHS

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
UN = United Nations

* Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.
Our best professional interior latex semi-gloss is formulated to meet the performance requirements of professional applicators. SPEEDHIDE Interior Enamel Latex Semi-Gloss is designed as a high hiding product with good durability. This low-VOC, low-odor paint enables a space to be painted while occupied or delivering the durable product performance required. It provides a smooth, semi-gloss finish on interior walls, ceilings, and trim surfaces. Recommended for use on properly prepared and primed or previously painted drywall, plaster, masonry, wood, and metal surfaces.

**RECOMMENDED SUBSTRATES**
- Concrete
- Gypsum Wallboard-Drywall
- Concrete/Masonry Block
- Plaster
- Ferrous Metal
- Wood

**CONFORMANCE STANDARDS**
- All bases are VOC compliant in all regulated areas
- Can help earn LEED® 2009 credits
- MPI approval in Category #54, Interior Latex, MPI® Gloss Level 5
- All bases meet MPI® approval in Category #54X-Green, Interior Latex, Gloss 5
- Meets MPI Green Performance Standards (GPS-1)
- Meets the Collaborative for High Performance Schools (CHPS) Low-Emitting Materials criteria section 01350

**APPLICATION INFORMATION**
Stir thoroughly before using and occasionally when in use. When using more than one can of the same color, mix to ensure color uniformity. USE WITH ADEQUATE VENTILATION. KEEP OUT OF REACH OF CHILDREN. Read all label and Material Safety Data Sheet (MSDS) information prior to use. MSDS are available through our website or by calling 1-800-441-9695.

**Application Equipment:** Apply with a high quality brush, roller, paint pad, or by spray equipment.

**Airless Spray:** Pressure 2000 psi, tip 0.015" - 0.021"
Spray equipment must be handled with due care and in accordance with manufacturer’s recommendation. High-pressure injection of coatings into the skin by airless equipment may cause serious injury.

**Brush:** Polyester/Nylon Brush
**Roller:** 3/16" - 3/8" nap roller cover.
**Thinning:** Thinning is not usually required. If necessary, add up to 1/4 pint (118 mL) of water per gallon (3.78L) of paint.

**Permissible temperatures during application:**
- Material: 50 to 90°F (10 to 32°C)
- Ambient: 50 to 100°F (10 to 38°C)
- Substrate: 50 to 100°F (10 to 38°C)

**FEATURES / BENEFITS**

**Features**
- All bases are less than 50 g/L VOC
- Excellent hiding power and coverage
- Good color and sheen uniformity
- Good flow and leveling
- Good brushability
- Good block resistance
- Soap and water cleanup
- MPI® approval in category #54, Interior Latex, MPI® Gloss Level 5
- All bases meet MPI® approval in category #54X-Green
- Can help earn LEED 2009 credits

**Benefits**
- Meets the most stringent environmental regulations nationwide
- Provides a uniform semi-gloss finish
- Better finished appearance
- Less brush marks on the paint film / Better coverage on trim
- Less brush marks on the paint film
- Tack free film / ideal for doors, doorframes, and windowsills
- Safe waterborne formula
- Meets strict performance and aesthetic requirements
- Meets MPI®'s most stringent environmental standard
- Contributes to sustainable design

**PRODUCT DATA**

**PRODUCT TYPE:** Acrylic Latex

**SHEEN:** Semi-Gloss: 50 to 60 (60° Gloss Meter)

**VOLUME SOLIDS:**
- 6-500: 36% +/- 2%
- 6-515: 48% +/- 2%

**WEIGHT SOLIDS:**
- Bases: <50 g/L (0.4 lbs/gal.)
- 6-544: 88 g/L (0.7 lbs/gal.)
- 6-576: 85 g/L (0.7 lbs/gal.)

**VOC:**
- Bases: <50 g/L (0.4 lbs/gal.)
- 6-544: 88 g/L (0.7 lbs/gal.)
- 6-576: 85 g/L (0.7 lbs/gal.)

**WEIGHT/GALLON:**
- 10.3 lbs. (4.7 kg) +/- 0.2 lbs. (91 g)

**COVERAGE:** Approximately 400 sq. ft./gal.(37 sq. m/3.78L) depending on surface texture and porosity.

- Wet Film Thickness: 4.0 mils
- Dry Film Thickness: 1.4 mils
- Dry Microns: 36 microns

Coverage figures do not include loss due to surface irregularities and porosity or material loss due to application method or mixing.

**DRYING TIME:**
- Dry time @ 77°F (25°C); 50% relative humidity.
- To Touch: 1 hour
- To Recoat: 4 hours
- To Full Cure: 30 days

Drying times listed may vary depending on temperature, humidity, film build, color, and air movement.

**CLEANUP:** Clean tools with warm, soapy water.

**WASHING INSTRUCTIONS:** Wait at least 14 days after painting before cleaning the surface with a non-abrasive mild cleaner.

**DISPOSAL:** Contact your local environmental regulatory agency for guidance on disposal of unused product. Do not pour down a drain or storm sewer.

**FLASH POINT:**
- Over 200°F (93°C)

**TINTING AND BASE INFORMATION**

- 6-500 White and Pastel Base
- 6-515 Midtone Base*
- 6-517 Neutral Base*
- 6-544 Off White
- 6-576 Bone White

*Must be tinted before use. Some colors, drastic color changes, or porous substrates may require more than one coat to achieve a uniform finish.
GENERAL SURFACE PREPARATION

Surfaces to be coated must be dry, clean, sound, and free from all contamination including loose and peeling paint, dirt, grease, oil, wax, concrete curing agents and bond breakers, chalk, efflorescence, mildew, rust, product fines, and dust. Remove loose paint, chalk, and efflorescence by wire brushing, scraping, sanding, and/or pressure washing. Putty all nail holes and caulk all cracks and open seams. Sand all glossy, rough, and patched surfaces. Feather back all rough edges to sound surface by sanding. Prime all bare and porous substrates with an appropriate primer.

WARNING! If you scrape, sand, or remove old paint, you may release lead dust or fumes. LEAD IS TOXIC. EXPOSURE TO LEAD DUST OR FUMES CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a properly fitted NIOSH-approved respirator and prevent skin contact to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the USEPA National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead. In Canada contact a regional Health Canada office. Follow these instructions to control exposure to other hazardous substances that may be released during surface preparation.

CONCRETE: New concrete should cure for at least 30 days and preferably 90 days prior to priming and painting. The pH of the substrate must be less than 10 before priming with an alkali resistant primer.

CONCRETE/MASONRY BLOCK: Mortar should cure for at least 30 days and preferably 90 days prior to priming. Fill block with an appropriate block filler. Surfaces previously coated with water thinned cement-based paint must be prepared with extra care. If the material appears to be adhering tightly, a masonry sealer may be applied to seal the surface. Check adhesion by applying a piece of masking tape. If the sealer peels off and has loose particles, remove all chalking or crumbling material, re-seal and re-check adhesion.

FERROUS METAL: The surface must be cleaned thoroughly to remove any dust, rust, and surface contaminants, and then primed.

GYPSUM WALLBOARD-DRYWALL: Nails or screws should be countersunk, and they along with any indentations should be mudded flush with the surface, sanded smooth and cleaned to remove any dust, then prime prior to painting the substrate.

PLASTER: Plaster, hardcoat, skim coat, or other alkaline surfaces should be allowed to cure for at least 30 days prior to priming with an alkali resistant primer.

WOOD: Unpainted wood or wood in poor condition should be sanded smooth, wiped clean, then primed. Any knots or resinous areas must be primed before painting. Countersink all nails, putty flush with surface, then prime.

SOLUBLE STAINS: Apply a SEAL-GRIP® primer over the stained area prior to coating, to avoid bleeding the stain into the topcoat.

RECOMMENDED PRIMERS

<table>
<thead>
<tr>
<th>Material</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete</td>
<td>4-603, 17-921</td>
</tr>
<tr>
<td>Concrete/Masonry Block</td>
<td>6-7, 6-15</td>
</tr>
<tr>
<td>Ferrous Metal</td>
<td>4-603, 17-921</td>
</tr>
<tr>
<td>Gypsum Wallboard-Drywall</td>
<td>90-712, 90-912</td>
</tr>
<tr>
<td>Plaster</td>
<td>6-2, 6-4, 9-900, 12-900</td>
</tr>
<tr>
<td>Wood</td>
<td>4-603, 17-921</td>
</tr>
<tr>
<td></td>
<td>6-2, 9-900, 12-900, 17-921</td>
</tr>
</tbody>
</table>

LIMITATIONS OF USE

FOR INTERIOR USE ONLY. Apply when air, surface and product temperatures are between 50°F (10°C) and 90°F (32°C).

Not recommended for use on floors.

PROTECT FROM FREEZING.

PACKAGING

1-Gallon (3.78 L)
5-Gallon (18.9 L)

Not all products are available in all sizes.
SAFETY DATA SHEET

Date of issue/Date of revision: 21 May 2019
Version: 13

Section 1. Identification

Product name: 6-500 SPEEDHIDE ENAMEL LATEX INTERIOR SEMI-GLOSS-WHITE/PASTEL BASE
Product code: 00401301
Other means of identification: Not available.
Product type: Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use: Consumer applications, Professional applications, Used by spraying.
Use of the substance/mixture: Coating.
Uses advised against: Not applicable.

Manufacturer: PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272
Emergency telephone number: (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
01-800-00-21-400 or + 52 55 5559 1588 (Mexico)
Technical Phone Number: 1-800-441-9695 (8:00 am to 5:00 pm EST)

Section 2. Hazards identification

OSHA/HCS status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture: CARCINOGENICITY - Category 2

Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 10.2% (Oral), 15.8% (Dermal), 30.3% (Inhalation)
This product contains TiO2 which has been classified as a GHS Carcinogen Category 2 based on its IARC 2B classification. For many PPG products, TiO2 is utilized as a raw material in a liquid coating formulation. In this case, the TiO2 particles are bound in a matrix with no meaningful potential for human exposure to unbound particles of TiO2 when the product is applied with a brush or roller. Sanding the coating surface or mist from spray applications may be harmful depending on the duration and level of exposure and require the use of appropriate personal protective equipment and/or engineering controls (see Section 8).

GHS label elements
Section 2. Hazards identification

Hazard pictograms

Signal word

Hazard statements

Precautionary statements

General

Prevention

Response

Storage

Disposal

Supplemental label elements

Hazard not otherwise classified

Section 3. Composition/information on ingredients

Substance/mixture

Product name

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>titanium dioxide</td>
<td>≥10  - ≤20</td>
<td>13463-67-7</td>
</tr>
<tr>
<td>Kaolin</td>
<td>≥1.0 - ≤5.0</td>
<td>1332-58-7</td>
</tr>
</tbody>
</table>

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

Eye contact

- Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
Section 4. First aid measures

Inhalation: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Skin contact: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.

Ingestion: If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact: No known significant effects or critical hazards.
Inhalation: No known significant effects or critical hazards.
Skin contact: No known significant effects or critical hazards.
Ingestion: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact: No specific data.
Inhalation: No specific data.
Skin contact: No specific data.
Ingestion: No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments: No specific treatment.
Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media: None known.

Specific hazards arising from the chemical: In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products: Decomposition products may include the following materials: carbon oxides, metal oxide/oxides.
Section 5. Fire-fighting measures

Special protective actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures: Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Special precautions: If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.
Section 7. Handling and storage

Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities: Do not store below the following temperature: 5°C (41°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>titanium dioxide</td>
<td>OSHA PEL (United States, 5/2018). TWA: 15 mg/m³ 8 hours. Form: Total dust.</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV (United States, 3/2018). TWA: 10 mg/m³ 8 hours.</td>
</tr>
<tr>
<td>Kaolin</td>
<td>ACGIH TLV (United States, 3/2018). TWA: 2 mg/m³ 8 hours. Form: Respirable fraction</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 5/2018). TWA: 5 mg/m³ 8 hours. Form: Respirable fraction</td>
</tr>
<tr>
<td></td>
<td>TWA: 15 mg/m³ 8 hours. Form: Total dust</td>
</tr>
</tbody>
</table>

Key to abbreviations

- A = Acceptable Maximum Peak
- ACGIH = American Conference of Governmental Industrial Hygienists.
- C = Ceiling Limit
- F = Fume
- IPEL = Internal Permissible Exposure Limit
- OSHEA = Occupational Safety and Health Administration.
- R = Respirable
- S = Potential skin absorption
- SR = Respiratory sensitization
- SS = Skin sensitization
- STEL = Short term Exposure limit values
- TD = Total dust
- TLV = Threshold Limit Value
- TWA = Time Weighted Average

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls: If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
Section 8. Exposure controls/personal protection

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Safety glasses with side shields.

Skin protection

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Gloves: For prolonged or repeated handling, use the following type of gloves:

Recommended: Viton®

Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection: Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Section 9. Physical and chemical properties

Appearance

Physical state: Liquid.
Color: Not available.
Odor: Characteristic.
Odor threshold: Not available.
pH: Not available.
Melting point: Not available.
Boiling point: >37.78°C (>100°F)
Flash point: Closed cup: Not applicable. [Product does not sustain combustion.]
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
Section 9. Physical and chemical properties

- Flammability (solid, gas): Not available.
- Lower and upper explosive (flammable) limits: Not available.
- Evaporation rate: Not available.
- Vapor pressure: Not available.
- Vapor density: Not available.
- Relative density: 1.17
- Density (lbs/gal): 9.76
- Solubility: Soluble in the following materials: cold water.
- Partition coefficient: n-octanol/water: Not available.
- Viscosity: Kinematic (40°C (104°F)): >0.21 cm²/s (>21 cSt)
- Volatility: 65% (v/v), 54.998% (w/w)
- % Solid: 45.002

Section 10. Stability and reactivity

- Reactivity: No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability: The product is stable.
- Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid: When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.
- Incompatible materials: Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
- Hazardous decomposition products: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>titanium dioxide</td>
<td>LC50 Inh. Dusts and mists</td>
<td>Rat</td>
<td>&gt;6.82 mg/l</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Kaolin</td>
<td>LC50 Inh. Dusts and mists</td>
<td>Rat</td>
<td>&gt;6.82 mg/l</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Conclusion/Summary: There are no data available on the mixture itself.

Irritation/Corrosion: The United States Page: 7/12
Section 11. Toxicological information

**Conclusion/Summary**

- **Skin**
  - There are no data available on the mixture itself.
- **Eyes**
  - There are no data available on the mixture itself.
- **Respiratory**
  - There are no data available on the mixture itself.

**Sensitization**

- **Conclusion/Summary**
  - Skin: There are no data available on the mixture itself.
  - Respiratory: There are no data available on the mixture itself.

**Mutagenicity**

- **Conclusion/Summary**
  - There are no data available on the mixture itself.

**Carcinogenicity**

- **Conclusion/Summary**
  - There are no data available on the mixture itself.

**Classification**

<table>
<thead>
<tr>
<th>Product/Ingredient name</th>
<th>OSHA</th>
<th>IARC</th>
<th>NTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>titanium dioxide</td>
<td>-</td>
<td>2B</td>
<td>-</td>
</tr>
</tbody>
</table>

Carcinogen Classification code:
- **IARC:** 1, 2A, 2B, 3, 4
- **NTP:** Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen
- **OSHA:** +
- Not listed/not regulated: -

**Reproductive toxicity**

- **Conclusion/Summary**
  - There are no data available on the mixture itself.

**Teratogenicity**

- **Conclusion/Summary**
  - There are no data available on the mixture itself.

**Specific target organ toxicity (single exposure)**

- Not available.

**Specific target organ toxicity (repeated exposure)**

- Not available.

**Target organs**

- Contains material which causes damage to the following organs: eyes.
- Contains material which may cause damage to the following organs: lungs, upper respiratory tract, stomach.

**Aspiration hazard**

- Not available.

**Information on the likely routes of exposure**

**Potential acute health effects**

- **Eye contact**
  - No known significant effects or critical hazards.
- **Inhalation**
  - No known significant effects or critical hazards.
- **Skin contact**
  - No known significant effects or critical hazards.
- **Ingestion**
  - No known significant effects or critical hazards.

**Over-exposure signs/symptoms**

- **Eye contact**
  - No specific data.
Section 11. Toxicological information

Inhalation: No specific data.
Skin contact: No specific data.
Ingestion: No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Conclusion/Summary: There are no data available on the mixture itself. Contains isothiazolinones. May cause allergic reaction. This product contains TiO2 which has been classified as a GHS Carcinogen Category 2 based on its IARC 2B classification. For many PPG products, TiO2 is utilized as a raw material in a liquid coating formulation. In this case, the TiO2 particles are bound in a matrix with no meaningful potential for human exposure to unbound particles of TiO2 when the product is applied with a brush or roller. Sanding the coating surface or mist from spray applications may be harmful depending on the duration and level of exposure and require the use of appropriate personal protective equipment and/or engineering controls (see Section 8). If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure
- Potential immediate effects: There are no data available on the mixture itself.
- Potential delayed effects: There are no data available on the mixture itself.

Long term exposure
- Potential immediate effects: There are no data available on the mixture itself.
- Potential delayed effects: There are no data available on the mixture itself.

Potential chronic health effects
- General: No known significant effects or critical hazards.
- Carcinogenicity: Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity: Suspected significant effects or critical hazards.
- Teratogenicity: No known significant effects or critical hazards.
- Developmental effects: No known significant effects or critical hazards.
- Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>80232.9 mg/kg</td>
</tr>
</tbody>
</table>

Section 12. Ecological information

Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>titanium dioxide</td>
<td>Acute LC50 &gt;100 mg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
</tbody>
</table>

Persistence and degradability

United States
Section 12. Ecological information

Bioaccumulative potential
Not available.

Mobility in soil
Soil/water partition coefficient ($K_{oc}$): Not available.

Section 13. Disposal considerations

Disposal methods
The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures.

14. Transport information

<table>
<thead>
<tr>
<th></th>
<th>DOT</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN proper shipping name</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Packing group</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
<tr>
<td>Marine pollutant substances</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

Additional information

DOT: None identified.
IMDG: None identified.
IATA: None identified.
14. Transport information

Special precautions for user: Transport within user’s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

United States

United States inventory (TSCA 8b): All components are listed or exempted.

United States - TSCA 5(e) - Substances consent order:
- Partially fluorinated alcohol, reaction products: Listed

United States - TSCA 5(a)2 - Proposed significant new use rules:
- Partially fluorinated alcohol, reaction products: Listed

SARA 302/304

SARA 304 RQ: Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification: CARCINOGENICITY - Category 2

Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>≥10 - ≤20</td>
<td>CARCINOGENICITY - Category 2</td>
</tr>
</tbody>
</table>

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health: 3 * Flammability: 0 Physical hazards: 0

( * ) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

Health: 3 Flammability: 0 Instability: 0

Date of previous issue: 3/15/2019

Organization that prepared the MSDS: EHS
Section 16. Other information

Key to abbreviations:
- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- UN = United Nations

† Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.
**HPC/Industrial Maintenance**

**GENERAL DESCRIPTION**

DURETHANE® DTM is a surface tolerant, high solids, high build, two component acrylic urethane formulated for direct-to-metal applications. This product is compliant for applications in areas with VOC requirements of less than 250 g/L (2.08 lbs./gal.).

**RECOMMENDED USES**

- Aluminum
- Ferrous Metal
- Galvanized Steel
- Masonry, Concrete Stucco, Plaster

**FEATURES AND BENEFITS**

- Direct-to-Metal Application, including tightly adhering rust
- Low VOC
- Superior gloss and color retention
- Easy to mix and apply by air or airless spray, brush or roller
- Excellent UV stability
- Infinite color capability
- Surpasses Level 3 of SSPC-36 paint specification
- Can earn LEED NC Version 2.2. Credits

**PACKAGING**

- Comp A (95-3300 and 95-3301) are available in 1-Gallon (3.78L) and 5-Gallon (18.9 L) containers.
- Comp B (95-3339) is available in 1 Quart (946 mL) and 1-Gallon (3.78L) containers.

Not all containers are full-filled. Not all products are available in all sizes.

**TINTING AND BASE INFORMATION**

| 95-3300  | Neutral Base up to 18 fl. oz. |
| 95-3301  | White Base up to 8.0 fl. oz. |
| 95-3339  | Component B* |
| 95-3302  | Yellow Base up to 14 oz. |
| 95-3303  | Red Base up to 14 oz. |
| 95-3314  | Black* |

*Do not tint.

Use formulas from the DURETHANE® DTM section of the formula book. Use only PERFORMACOLOR® 4257 line colorants.

**PRODUCT DATA**

- **GLOSS:** 85 minimum (60° meter)
- **VOC:** 2.01 lbs./gal. (241 g/L)
- **COVERAGE:** 261 sq. ft./gal. @ 4 mils (24.2 sq. m/3.78L)

Note: Coverage does not include loss due to varying application method, surface profile or mixing.

- **DFT:** 3.0 minimum to 5.0 maximum mils
- **WEIGHT/GALLON*:** 11.3 lbs. +/- 0.3 lbs. (136 g)
- **VOLUME SOLIDS*:** 65.2% +/- 2%
- **WEIGHT SOLIDS*:** 74.3% +/- 2%
- **FILM THICKNESS:**
  - Dry Mil*: 3.0 to 5.0
  - Dry Microns: 76.2 to 127
  - Wet Mil*: 4.6 to 7.7
  - Wet Microns: 116.8 to 195.6

- **MIX RATIO:** 5 parts Comp. A to 1 part Comp. B

Results will vary by color, thinning and other additives.

*Product data calculated on mixed product 95-3301 mixed with 95-3339.

- **POT LIFE:** 3 hours @ 77°F (25°C)
- **INDUCTION TIME:** None

**MAXIMUM IN-SERVICE TEMPERATURE:**

- **Dry Heat:** 275°F (135°C)

**CLEANUP:**

<table>
<thead>
<tr>
<th>95-3300/3301</th>
<th>95-339</th>
</tr>
</thead>
<tbody>
<tr>
<td>97-722, 97-730, 97-735</td>
<td>97-727</td>
</tr>
</tbody>
</table>

**FLASH POINT:**

<table>
<thead>
<tr>
<th>95-3300/3301</th>
<th>95-339</th>
</tr>
</thead>
<tbody>
<tr>
<td>86°F (30°C)</td>
<td>331°F (166°C)</td>
</tr>
</tbody>
</table>

**DRIED SCHEDULE**

Per ASTM D5595, air dry @ 50% relative humidity.

Drying times listed may vary depending on temperature, humidity, color and air movement.

<table>
<thead>
<tr>
<th><strong>With 97-722 Accelerator</strong></th>
<th><strong>Without 97-722 Accelerator</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>90°F (32°C)</td>
<td>90°F (32°C)</td>
</tr>
<tr>
<td>77°F (25°C)</td>
<td>77°F (25°C)</td>
</tr>
<tr>
<td>40°F (4.4°C)</td>
<td>40°F (4.4°C)</td>
</tr>
<tr>
<td>Dry to Touch:</td>
<td>1 hour</td>
</tr>
<tr>
<td>Dry Through:</td>
<td>&lt;1 hour</td>
</tr>
<tr>
<td>Dry to Recat:</td>
<td>When dry through</td>
</tr>
</tbody>
</table>

- **With 97-722 Accelerator**
  - Dry to Touch: 1 hour
  - Dry Through: 1 hour
  - Dry to Recat: When dry through

- **Without 97-722 Accelerator**
  - Dry to Touch: 1 hour
  - Dry Through: 2 hours
  - Dry to Recat: When dry through

  - Dry to Touch: 1 hour
  - Dry Through: 2 hours
  - Dry to Recat: When dry through

  - Dry to Touch: 1 hour
  - Dry Through: 2 hours
  - Dry to Recat: When dry through
**GENERAL SURFACE PREPARATION**

The service life of the coating is directly related to the surface preparation. The surface to be coated must be dimensionally stable, properly prepared, dry, clean and free of contamination. SSPC-SP2 Hand Tool or SSPC-SP3 Power Tool Cleaning is minimum. For best performance, SSPC-SP6 (NACE #3) Commercial Blast Cleaning is recommended. **WARNING!** If you scrape, sand, or remove old paint, you may release lead dust or fumes. **LEAD IS TOXIC. EXPOSURE TO LEAD DUST OR FUMES CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN.** PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a properly fitted NIOSH-approved respirator and prevent skin contact to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the USEPA National Lead Information Hotline at 1-800-424-LEAD or log on to [www.epa.gov/lead](http://www.epa.gov/lead). In Canada contact a regional Health Canada office. Follow these instructions to control exposure to other hazardous substances that may be released during surface preparation.

**PREVIOUSLY PAINTED SURFACES:** Old coatings should be tested for adhesion of the existing system and lifting by the proposed topcoat.

**RECOMMENDED PRIMERS**

DURETHANE® DTM Mastic is self-priming. Aggressive environmental conditions or heavily rusted substrates require the use of a primer.

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Primer Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>94-109</td>
<td>Epoxy Fast Dry Primer</td>
</tr>
<tr>
<td>97-946</td>
<td>All Weather DTR</td>
</tr>
<tr>
<td>97-145</td>
<td>PITT-GUARD® DTR</td>
</tr>
<tr>
<td>98-46</td>
<td>AQUAPON® WB</td>
</tr>
</tbody>
</table>

**LIMITATIONS OF USE**

Apply only when air, product and surface temperatures are at least 40°F (4°C) and surface temperature is at least 5°F (3°C) above the dew point. Drying times listed may vary depending on temperature, humidity and air movement. Do not apply material which has been mixed for more than three hours as loss of gloss uniformity will occur. Excess film thickness may lead to air entrapment or pinholing in the film. For Professional Use Only; Not Intended for Household Use.

**MIXING AND APPLICATION INFORMATION**

Mix Component “A” thoroughly before blending. (If 97-722 Accelerator is used, add it to the “A” Component and mix well prior to the addition of the “B” Component. Add up to 6 oz. of 97-722 per mixed gallon). Add Component “B” to Component “A” and mix well. A mechanical mixer is recommended.

Application Equipment: Changes in application equipment, pressures and/or tip sizes may be required depending on ambient temperatures and application conditions.

Conventional Spray: Fluid Nozzle: DeVilbiss MBC gun with 704 or 777 air cap with E or F tip and needle, or equivalent equipment. Atomization Pressure: 55-70 psi. Fluid Pressure: Can not specify dependent on numerous factors.

Airless Spray: Equipment capable of maintaining a minimum of 2500 psi at the tip without surge. 1500 psi minimum at the tip without surge. Tip size: 0.013" - 0.017" (0.331 - 0.443 mm) orifice. Spray equipment must be handled with due care and in accordance with manufacturer’s recommendation. High-pressure injection of coatings into the skin by airless equipment may cause serious injury.

—PPG Industries, Inc. Architectural Coatings
One PPG Place
Pittsburgh, PA 15272
www.ppgihpc.com
Section 1. Identification

Product name: DURETHANE DTM WHITE BASE COMP A
Product code: 95-3301/05
Other means of identification: Not available.
Product type: Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use: Industrial applications, Used by spraying.
Use of the substance/mixture: Coating.
Uses advised against: Not applicable.

Manufacturer: PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

Emergency telephone number:
(412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
01-800-00-21-400 or + 52 55 5559 1588 (Mexico)

Technical Phone Number: 888-977-4762

Section 2. Hazards identification

OSHA/HCS status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture:
- FLAMMABLE LIQUIDS - Category 3
- CARCINOGENICITY - Category 2

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 32.4% (Oral), 39.2% (Dermal), 32.4% (Inhalation)

This product contains TiO2 which has been classified as a GHS Carcinogen Category 2 based on its IARC 2B classification. For many PPG products, TiO2 is utilized as a raw material in a liquid coating formulation. In this case, the TiO2 particles are bound in a matrix with no meaningful potential for human exposure to unbound particles of TiO2 when the product is applied with a brush or roller. Sanding the coating surface or mist from spray applications may be harmful depending on the duration and level of exposure and require the use of appropriate personal protective equipment and/or engineering controls (see Section 8).

GHS label elements
Section 2. Hazards identification

Hazard pictograms:

Signal word: Warning

Hazard statements:
- Flammable liquid and vapor. Suspected of causing cancer.

Precautionary statements:

Prevention:
- Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed.

Response:
- If exposed or concerned: Get medical attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

Storage:
- Store locked up. Store in a well-ventilated place. Keep cool.

Disposal:
- Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements:
- Sanding and grinding dusts may be harmful if inhaled. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.

Hazards not otherwise classified:
- May form explosive peroxides. Hazardous reactions or instability may occur under certain conditions of storage or use. Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture: Mixture
Product name: DURETHANE DTM WHITE BASE COMP A

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>≥20 - ≤50</td>
<td>13463-67-7</td>
</tr>
<tr>
<td>4-chloro-a,a,o-trifluorotoluene</td>
<td>≥5.0 - &lt;10</td>
<td>98-56-6</td>
</tr>
<tr>
<td>n-butyl acetate</td>
<td>≥5.0 - &lt;10</td>
<td>123-86-4</td>
</tr>
<tr>
<td>heptan-2-one</td>
<td>≥1.0 - ≤5.0</td>
<td>110-43-0</td>
</tr>
<tr>
<td>ethyl 3-ethoxypropionate</td>
<td>≥1.0 - ≤5.0</td>
<td>763-69-9</td>
</tr>
</tbody>
</table>

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.
Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

Eye contact: Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.

Inhalation: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Skin contact: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.

Ingestion: If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact: No known significant effects or critical hazards.

Inhalation: No known significant effects or critical hazards.

Skin contact: Fatting to the skin. May cause skin dryness and irritation.

Ingestion: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact: No specific data.

Inhalation: No specific data.

Skin contact: Adverse symptoms may include the following:
- irritation
- dryness
- cracking

Ingestion: No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments: No specific treatment.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media: Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media: Do not use water jet.
Section 5. Fire-fighting measures

Specific hazards arising from the chemical: Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products: Decomposition products may include the following materials:
- carbon oxides
- phosphorus oxides
- halogenated compounds
- carbonyl halides
- metal oxide/oxides

Special protective actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via licensed waste disposal contractor.

Large spill: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Collect and contain spillage with non-combustible absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact.
# Section 7. Handling and storage

## Precautions for safe handling

**Protective measures**: Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Special precautions**: Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. May form explosive peroxides. Keep away from combustible materials. Avoid shock and friction. Avoid all possible sources of ignition (spark or flame). If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.

**Advice on general occupational hygiene**: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

## Conditions for safe storage, including any incompatibilities

Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

# Section 8. Exposure controls/personal protection

## Control parameters

### Occupational exposure limits
Section 8. Exposure controls/personal protection

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>OSHA PEL (United States, 5/2018). TWA: 15 mg/m³ 8 hours. Form: Total dust</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV (United States, 3/2019). TWA: 10 mg/m³ 8 hours.</td>
</tr>
<tr>
<td>4-chloro-α,α,α-trifluorotoluene</td>
<td>IPEL (PPG). TWA: 25 ppm</td>
</tr>
<tr>
<td>n-butyl acetate</td>
<td>OSHA PEL (United States, 5/2018). TWA: 710 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV (United States, 3/2019). TWA: 150 ppm 8 hours.</td>
</tr>
<tr>
<td>heptan-2-one</td>
<td>OSHA PEL (United States, 5/2018). TWA: 465 mg/m³ 8 hours.</td>
</tr>
<tr>
<td>ethyl 3-ethoxypropionate</td>
<td>ACGIH TLV (United States, 3/2019). TWA: 100 ppm 8 hours.</td>
</tr>
<tr>
<td></td>
<td>IPEL (PPG). TWA: 50 ppm</td>
</tr>
<tr>
<td></td>
<td>STEL: 100 ppm</td>
</tr>
</tbody>
</table>

Key to abbreviations

A = Acceptable Maximum Peak  
ACGIH = American Conference of Governmental Industrial Hygienists.  
C = Ceiling Limit  
F = Fume  
IPEL = Internal Permissible Exposure Limit  
OSHA = Occupational Safety and Health Administration.  
R = Respirable  
Z = OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances  
S = Potential skin absorption  
SR = Respiratory sensitization  
SS = Skin sensitization  
STEL = Short term Exposure limit values  
TD = Total dust  
TLV = Threshold Limit Value  
TWA = Time Weighted Average

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures
Section 8. Exposure controls/personal protection

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Safety glasses with side shields.

Skin protection:

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Gloves: For prolonged or repeated handling, use the following type of gloves:

- Recommended: Chloroprene, nitrile rubber
- May be used: polyvinyl alcohol (PVA), Viton®, butyl rubber

Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection: Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Section 9. Physical and chemical properties

Appearance

- Physical state: Liquid.
- Color: White.
- Odor: Characteristic.
- Odor threshold: Not available.
- pH: Not available.
- Melting point: Not available.
- Boiling point: >37.78°C (>100°F)
- Flash point: Closed cup: 30°C (86°F)
- Auto-ignition temperature: Not available.
- Decomposition temperature: Not available.
- Flammability (solid, gas): Not available.
Section 9. Physical and chemical properties

Lower and upper explosive (flammable) limits:
- Not available.

Evaporation rate:
- Not available.

Vapor pressure:
- Not available.

Vapor density:
- Not available.

Relative density:
- $\gamma_{42}$

Density (lbs / gal):
- $0.85$

Solubility:
- Insoluble in the following materials: cold water.

Partition coefficient: n-octanol/water:
- Not available.

Viscosity:
- Kinematic (40°C (104°F)): $>0.21$ cm²/s (>21 cSt)

Volatility:
- $1\%$ (v/v), $28.67\%$ (w/w)

% Solid, (w/w):
- $33$

Section 10. Stability and reactivity

Reactivity:
- No specific test data related to reactivity available for this product or its ingredients.

Chemical stability:
- The product is stable.

Possibility of hazardous reactions:
- Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid:
- When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.

Incompatible materials:
- Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.

Hazardous decomposition products:
- Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>LC50 Inhalation Dusts and mists</td>
<td>Rat</td>
<td>$&gt;6.82$ mg/l</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rabbit</td>
<td>$&gt;5000$ mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rat</td>
<td>$&gt;5000$ mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rat</td>
<td>$33080$ mg/m³</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rabbit</td>
<td>$&gt;2.7$ g/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rat</td>
<td>$13$ g/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rat</td>
<td>$&gt;21.1$ mg/l</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rat</td>
<td>$2000$ ppm</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rabbit</td>
<td>$&gt;17600$ mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>4-chloro-o,o,o-trifluorotoluenen-butyl acetate</td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Vapor</td>
<td>Rabbit</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Vapor</td>
<td>Rabbit</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rabbit</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Route of exposure</th>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4-chloro-o,a,a-trifluorotoluene</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
<tr>
<td></td>
<td>n-butyl acetate</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Narcotic effects</td>
</tr>
<tr>
<td></td>
<td>heptan-2-one</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Narcotic effects</td>
</tr>
</tbody>
</table>

Conclusion/Summary: There are no data available on the mixture itself.

Irritation/Corrosion

Skin: There are no data available on the mixture itself.

Eyes: There are no data available on the mixture itself.

Respiratory: There are no data available on the mixture itself.

Sensitization

Skin: There are no data available on the mixture itself.

Respiratory: There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary: There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary: There are no data available on the mixture itself.

Classification

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>OSHA</th>
<th>IARC</th>
<th>NTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>-</td>
<td>2B</td>
<td>-</td>
</tr>
</tbody>
</table>

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4
NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen
OSHA: +
Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary: There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary: There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Not available.
Section 11. Toxicological information

Target organs
Contains material which causes damage to the following organs: brain, central nervous system (CNS).
Contains material which may cause damage to the following organs: kidneys, peripheral nervous system, upper respiratory tract, immune system, skin, eye, lens or cornea.

Aspiration hazard
Not available.

Information on the likely routes of exposure

Potential acute health effects

- Eye contact: No known significant effects or critical hazards.
- Inhalation: No known significant effects or critical hazards.
- Skin contact: Defatting to the skin. May cause skin dryness and irritation.
- Ingestion: No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact: No specific data.
- Inhalation: No specific data.
- Skin contact: Adverse symptoms may include the following: irritation, dryness, cracking.
- Ingestion: No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Conclusion/Summary
There are no data available on the mixture itself. This product contains TiO2 which has been classified as a GHS Carcinogen Category 2 based on its IARC 2B classification. For many PPG products, TiO2 is utilized as a raw material in a liquid coating formulation. In this case, the TiO2 particles are bound in a matrix with no meaningful potential for human exposure to unbound particles of TiO2 when the product is applied with a brush or roller. Sanding the coating surface or mist from spray applications may be harmful depending on the duration and level of exposure and require the use of appropriate personal protective equipment and/or engineering controls (see Section 8). Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate effects
There are no data available on the mixture itself.

Potential delayed effects
There are no data available on the mixture itself.
Section 11. Toxicological information

Potential immediate effects: There are no data available on the mixture itself.
Potential delayed effects: There are no data available on the mixture itself.
Potential chronic health effects:
- General: Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
- Carcinogenicity: Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity: No known significant effects or critical hazards.
- Teratogenicity: No known significant effects or critical hazards.
- Developmental effects: No known significant effects or critical hazards.
- Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Oral (mg/kg)</th>
<th>Dermal (mg/kg)</th>
<th>Inhalation (gases) (ppm)</th>
<th>Inhalation (vapors) (mg/l)</th>
<th>Inhalation (dusts and mists) (mg/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DURETHANE DTM WHITE BASE COMP A</td>
<td>25095.4</td>
<td>15223.8</td>
<td>N/A</td>
<td>261.9</td>
<td>23.5</td>
</tr>
<tr>
<td>4-chloro-o,o,o-trifluorotoluene</td>
<td>13000</td>
<td>2500</td>
<td>N/A</td>
<td>33.08</td>
<td>N/A</td>
</tr>
<tr>
<td>n-butyl acetate</td>
<td>10768</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>heptan-2-one</td>
<td>1600</td>
<td>10206</td>
<td>N/A</td>
<td>16.7</td>
<td>1.5</td>
</tr>
<tr>
<td>ethyl 3-ethoxypropionate</td>
<td>3200</td>
<td>10000</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Section 12. Ecological information

Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>Acute LC50 &gt;100 mg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td>heptan-2-one</td>
<td>Acute LC50 131 mg/l Fish</td>
<td></td>
<td>96 hours</td>
</tr>
</tbody>
</table>

Persistence and degradability

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Result</th>
<th>Dose</th>
<th>Inoculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>heptan-2-one</td>
<td>OECD 310</td>
<td>69 % - Readily - 28 days</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP&lt;sub&gt;ow&lt;/sub&gt;</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-butyl acetate</td>
<td>1.78</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>heptan-2-one</td>
<td>1.98</td>
<td>-</td>
<td>low</td>
</tr>
</tbody>
</table>
Section 12. Ecological information

Mobility in soil
Soil/water partition coefficient (Koc) : Not available.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

<table>
<thead>
<tr>
<th></th>
<th>DOT</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number</td>
<td>UN1263</td>
<td>UN1263</td>
<td>UN1263</td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>PAINT</td>
<td>PAINT</td>
<td>PAINT</td>
</tr>
<tr>
<td>Transport hazard class (es)</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Packing group</td>
<td>III</td>
<td>III</td>
<td>III</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>No.</td>
<td>Yes.</td>
<td>Yes.</td>
</tr>
<tr>
<td>Marine pollutant substances</td>
<td>Not applicable.</td>
<td>(trizinc bis(orthophosphate))</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

Additional information
DOT : None identified.
IMDG : The marine pollutant mark is not required when transported in sizes of ≤ 5 L or ≤ 5 kg.
IATA : The environmentally hazardous substance mark may appear if required by other transportation regulations.
14. Transport information

Special precautions for user: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

United States

United States inventory (TSCA 8b): All components are listed or exempted.

U.S. Federal regulations:

United States - TSCA 12(b) - Chemical export notification:
- chloro-α,α,α-trifluorotoluene

SARA 302/304

SARA 304 RQ: Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification:
- FLAMMABLE LIQUIDS - Category 3
- CARCINOGENICITY - Category 2
- HNOC - Defatting irritant
- HNOC - May form explosive peroxides.

Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>≥20 - ≤50</td>
<td>CARCINOGENICITY - Category 2</td>
</tr>
<tr>
<td>4-chloro-α,α,α-trifluorotoluene</td>
<td>≥5.0 - &lt;10</td>
<td>FLAMMABLE LIQUIDS - Category 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SKIN IRRITATION - Category 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EYE IRRITATION - Category 2A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Respiratory tract irritation) - Category 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HNOC - Defatting irritant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Narcotic effects) - Category 3</td>
</tr>
<tr>
<td>n-butyl acetate</td>
<td>≥5.0 - ≤10</td>
<td>FLAMMABLE LIQUIDS - Category 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Narcotic effects) - Category 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HNOC - Defatting irritant</td>
</tr>
<tr>
<td>heptan-2-one</td>
<td>≥1.0 - ≤5.0</td>
<td>FLAMMABLE LIQUIDS - Category 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACUTE TOXICITY (oral) - Category 4</td>
</tr>
<tr>
<td>ethyl 3-ethoxypropionate</td>
<td>≥1.0 - ≤5.0</td>
<td>FLAMMABLE LIQUIDS - Category 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HNOC - May form explosive peroxides.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HNOC - Defatting irritant</td>
</tr>
</tbody>
</table>

SARA 313

Chemical name | CAS number | Concentration

United States Page: 13/14
Section 15. Regulatory information

Supplier notification : trizinc bis(orthophosphate) 7779-90-0 3 - 7

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

WARNING: Cancer - www.P65Warnings.ca.gov.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 2 Flammability : 3 Physical hazards : 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

Health : 2 Flammability : 3 Instability : 0

Date of previous issue : 11/15/2019

Organization that prepared the MSDS

Key to abbreviations :

ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = log10 of the octanol/water partition coefficient
N/A = Not available
SGG = Segregation Group
UN = United Nations

Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.
Section 1. Identification

Product name : DURETHANE DTM Comp B
Product code : 95-339/01
Other means of identification : Not available.
Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Industrial applications.
Use of the substance/mixture : Coating.
Uses advised against : Not applicable.

Manufacturer : PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

Emergency telephone number : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
01-800-00-21-400 or + 52 55 5559 1588 (Mexico)

Technical Phone Number : 888-977-4762

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture :
- ACUTE TOXICITY (inhalation) - Category 4
- RESPIRATORY SENSITIZATION - Category 1
- SKIN SENSITIZATION - Category 1
- SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

GHS label elements
Hazard pictograms : [Image of pictograms]

Signal word : Danger
Hazard statements : Harmful if inhaled.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
May cause respiratory irritation.
Section 2. Hazards identification

Precautionary statements

Prevention: Wear protective gloves. Wear respiratory protection. Use only outdoors or in a well-ventilated area. Avoid breathing vapor. Contaminated work clothing must not be allowed out of the workplace.

Response: IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. If experiencing respiratory symptoms: Call a POISON CENTER or physician. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention.

Storage: Store locked up.

Disposal: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements: Moisture-sensitive material. Skin contact to isocyanate monomer may lead to allergic lung reaction. Based on the properties of the isocyanate components and considering toxicological data on similar mixtures, this mixture may cause acute irritation and/or sensitization of the respiratory system, leading to an asthmatic condition, wheezing and tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the OEL. Repeated exposure may lead to permanent respiratory disability. Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Emits toxic fumes when heated.

Hazard not otherwise classified: None known.

Section 3. Composition/information on ingredients

Substance/mixture: Mixture

Product name: DURETHANE DTM Comp B

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hexamethylene diisocyanate, oligomers</td>
<td>≥90</td>
<td>28182-81-2</td>
</tr>
<tr>
<td>hexamethylene-di-isocyanate</td>
<td>&lt;1.0</td>
<td>822-06-0</td>
</tr>
</tbody>
</table>

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persist after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

Eye contact: Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
Section 4. First aid measures

**Inhalation**: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

**Skin contact**: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.

**Ingestion**: If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

**Most important symptoms/effects, acute and delayed**

**Potential acute health effects**

**Eye contact**: No known significant effects or critical hazards.

**Inhalation**: Harmful if inhaled. May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Skin contact**: May cause an allergic skin reaction.

**Ingestion**: No known significant effects or critical hazards.

**Over-exposure signs/symptoms**

**Eye contact**: No specific data.

**Inhalation**: Adverse symptoms may include the following:
- respiratory tract irritation
- coughing
- wheezing and breathing difficulties
- asthma

**Skin contact**: Adverse symptoms may include the following:
- irritation
- redness

**Ingestion**: No specific data.

**Indication of immediate medical attention and special treatment needed, if necessary**

**Notes to physician**: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Specific treatments**: No specific treatment.

**Protection of first-aiders**: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing media**: Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media**: None known.
Section 5. Fire-fighting measures

Specific hazards arising from the chemical: In a fire or if heated, a pressure increase will occur and the container may burst. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

Hazardous thermal decomposition products: Decomposition products may include the following materials:
- carbon oxides
- nitrogen oxides
- Cyanate and isocyanate.
- hydrogen cyanide

Special protective actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Special provisions: Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Place in a suitable container. The contaminated area should be cleaned immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume): water (45 parts), ethanol or isopropyl alcohol (50 parts) and concentrated (d: 0,880) ammonia solution (5 parts). A non-flammable alternative is sodium carbonate (5 parts) and water (95 parts). Add the same
Section 6. Accidental release measures

Decontaminant to the remnants and let stand for several days until no further reaction in an unsealed container. Once this stage is reached, close container and dispose of according to local regulations (see section 13). Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

Section 7. Handling and storage

**Precautions for safe handling**

**Protective measures**: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Special precautions**: Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.

**Advice on general occupational hygiene**: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, including any incompatibilities**: Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Precautions should be taken to minimize exposure to atmospheric humidity or water. CO₂ will be formed, which, in closed containers, could result in pressurization.

Section 8. Exposure controls/personal protection

**Control parameters**

**Occupational exposure limits**
## Section 8. Exposure controls/personal protection

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hexamethylene diisocyanate, oligomers</td>
<td>IPEL (PPG).</td>
</tr>
<tr>
<td></td>
<td>TWA: 0.5 mg/m³</td>
</tr>
<tr>
<td></td>
<td>STEL: 1 mg/m³</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV (United States, 3/2018).</td>
</tr>
<tr>
<td></td>
<td>TWA: 0.03 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>TWA: 0.005 ppm 8 hours.</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 5/2018).</td>
</tr>
<tr>
<td></td>
<td>Absorbed through skin.</td>
</tr>
<tr>
<td></td>
<td>TWA: 5 mg/m³, (as CN) 8 hours.</td>
</tr>
<tr>
<td>hexamethylene-di-isocyanate</td>
<td></td>
</tr>
</tbody>
</table>

**Key to abbreviations**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Acceptable Maximum Peak</td>
</tr>
<tr>
<td>ACGIH</td>
<td>American Conference of Governmental Industrial Hygienists</td>
</tr>
<tr>
<td>C</td>
<td>Ceiling Limit</td>
</tr>
<tr>
<td>F</td>
<td>Fume</td>
</tr>
<tr>
<td>IPEL</td>
<td>Internal Permissible Exposure Limit</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Safety and Health Administration.</td>
</tr>
<tr>
<td>R</td>
<td>Respirable</td>
</tr>
<tr>
<td>Z</td>
<td>OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances</td>
</tr>
<tr>
<td>S</td>
<td>Potential skin absorption</td>
</tr>
<tr>
<td>SR</td>
<td>Respiratory skin sensitization</td>
</tr>
<tr>
<td>SS</td>
<td>Skin sensitization</td>
</tr>
<tr>
<td>STEL</td>
<td>Short term Exposure limit values</td>
</tr>
<tr>
<td>TD</td>
<td>Total dust</td>
</tr>
<tr>
<td>TLV</td>
<td>Threshold Limit Value</td>
</tr>
<tr>
<td>TWA</td>
<td>Time Weighted Average</td>
</tr>
</tbody>
</table>

**Consult local authorities for acceptable exposure limits.**

**Recommended monitoring procedures**

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**Appropriate engineering controls**

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Environmental exposure controls**

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**Individual protection measures**

**Hygiene measures**

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection**

Safety glasses with side shields.
Section 8. Exposure controls/personal protection

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Gloves: butyl rubber

Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection: By spraying: air-fed respirator. By other operations than spraying, in well ventilated areas, air-fed respirators could be replaced by a combination charcoal filter and particulate filter mask. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Restrictions on use: Persons with a history of asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used.

Section 9. Physical and chemical properties

Appearance

Physical state: Liquid.
Color: Colorless.
Odor: Characteristic.
Odor threshold: Not available.
pH: Not available.
Melting point: Not available.
Boiling point: >37.78°C (>100°F)
Flash point: Closed cup: 166.11°C (331°F)
Material supports combustion: Yes.
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
Flammability (solid, gas): Not available.
Lower and upper explosive (flammable) limits: Not available.
Evaporation rate: Not available.
Vapor pressure: Not available.
Vapor density: Not available.
Relative density: 1.17
Density (lbs/gal): 9.76
Solubility: Insoluble in the following materials: cold water.
Section 9. Physical and chemical properties

Partition coefficient: n-octanol/water: Not available.

Viscosity: Kinematic (40°C (104°F)): >0.21 cm²/s (>21 cSt)

Volatile: 0% (v/v), 0% (w/w)

% Solid. (w/w): 100

Section 10. Stability and reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.

Chemical stability: The product is stable.

Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid: In a fire, hazardous decomposition products may be produced. Refer to protective measures listed in sections 7 and 8.

Incompatible materials: Keep away from: oxidizing agents, strong alkalis, strong acids, amines, alcohols, water. Uncontrolled exothermic reactions occur with amines and alcohols.

Hazardous decomposition products: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen, hydrogen cyanide, monomeric isocyanates.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hexamethylene diisocyanate, oligomers</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;2000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Hexamethylene-di-isocyanate</td>
<td>LD50 Oral</td>
<td>Rat - Female</td>
<td>&gt;2500 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Dusts and mists</td>
<td>Rat</td>
<td>124 mg/m³</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>151 mg/m³</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>22 ppm</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>0.57 g/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>0.71 g/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Conclusion/Summary: There are no data available on the mixture itself.

Irritation/Corrosion

Conclusion/Summary

Skin: There are no data available on the mixture itself.

Eyes: There are no data available on the mixture itself.

Respiratory: There are no data available on the mixture itself.

Sensitization

Conclusion/Summary
Section 11. Toxicological information

Skin: There are no data available on the mixture itself.

Respiratory: There are no data available on the mixture itself.

Mutagenicity
Conclusion/Summary: There are no data available on the mixture itself.

Carcinogenicity
Conclusion/Summary: There are no data available on the mixture itself.

Reproductive toxicity
Conclusion/Summary: There are no data available on the mixture itself.

Teratogenicity
Conclusion/Summary: There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hexamethylene diisocyanate, oligomers</td>
<td>Category 3</td>
</tr>
<tr>
<td>hexamethylene-di-isocyanate</td>
<td>Category 3</td>
</tr>
</tbody>
</table>

Specific target organ toxicity (repeated exposure)
Not available.

Target organs: Contains material which may cause damage to the following organs: upper respiratory tract, skin.

Aspiration hazard
Not available.

Information on the likely routes of exposure

Potential acute health effects
Eye contact: No known significant effects or critical hazards.
Inhalation: Harmful if inhaled. May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin contact: May cause an allergic skin reaction.
Ingestion: No known significant effects or critical hazards.

Over-exposure signs/symptoms
Eye contact: No specific data.
Inhalation: Adverse symptoms may include the following:
  - respiratory tract irritation
  - coughing
  - wheezing and breathing difficulties
  - asthma
Skin contact: Adverse symptoms may include the following:
  - irritation
  - redness
Ingestion: No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure
Section 11. Toxicological information

Conclusion/Summary: There are no data available on the mixture itself. Skin contact to isocyanate monomer may lead to allergic lung reaction. Based on the properties of the isocyanate components and considering toxicological data on similar mixtures, this mixture may cause acute irritation and/or sensitization of the respiratory system, leading to an asthmatic condition, wheezing and tightness of the chest. Repeated exposure may lead to permanent respiratory disability. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate effects: There are no data available on the mixture itself.

Potential delayed effects: There are no data available on the mixture itself.

Long term exposure

Potential immediate effects: There are no data available on the mixture itself.

Potential delayed effects: There are no data available on the mixture itself.

Potential chronic health effects

General: Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation (vapors)</td>
<td>11.02 mg/l</td>
</tr>
<tr>
<td>Inhalation (dusts and mists)</td>
<td>1.502 mg/l</td>
</tr>
</tbody>
</table>

Section 12. Ecological information

Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hexamethylene diisocyanate, oligomers</td>
<td>Acute EC50 &gt;1000 mg/l</td>
<td>Algae - scenedesmus subspicatus</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 &gt;100 mg/l</td>
<td>Daphnia - daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 &gt;100 mg/l</td>
<td>Fish - Danio rerio (zebra fish)</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

Persistence and degradability

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hexamethylene diisocyanate, oligomers</td>
<td>-</td>
<td>-</td>
<td>Not readily</td>
</tr>
</tbody>
</table>
Section 12. Ecological information

Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogPow</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hexamethylene disocyanate, oligomers</td>
<td>-</td>
<td>3.2</td>
<td>low</td>
</tr>
<tr>
<td>hexamethylene-di-isocyanate</td>
<td>1.08</td>
<td>-</td>
<td>low</td>
</tr>
</tbody>
</table>

Mobility in soil

Soil/water partition coefficient (Koc) : Not available.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

Section 14. Transport information

<table>
<thead>
<tr>
<th></th>
<th>DOT</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN proper shipping name</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Packing group</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
<tr>
<td>Marine pollutant substances</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

Additional information

DOT : None identified.
14. Transport information

IMDG : None identified.
IATA : None identified.

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

United States

United States inventory (TSCA 8b) : All components are listed or exempted.

SARA 302/304
SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312
Classification : ACUTE TOXICITY (inhalation) - Category 4
RESPIRATORY SENSITIZATION - Category 1
SKIN SENSITIZATION - Category 1
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Classification</th>
</tr>
</thead>
</table>
| Hexamethylene diisocyanate, oligomers     | ≥90| COMBUSTIBLE DUSTS
ACUTE TOXICITY (inhalation) - Category 4
SKIN SENSITIZATION - Category 1A
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
ACUTE TOXICITY (oral) - Category 4
ACUTE TOXICITY (dermal) - Category 3
ACUTE TOXICITY (inhalation) - Category 1
SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
RESPIRATORY SENSITIZATION - Category 1A
SKIN SENSITIZATION - Category 1A
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 |
| hexamethylene-di-isocyanate                | <1.0|                                                                              |

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.
Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 3  Flammability : 1  Physical hazards : 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

Health : 3  Flammability : 1  Instability : 0

Date of previous issue : 7/23/2018

Organization that prepared the MSDS : EHS

Key to abbreviations : ATE = Acute Toxicity Estimate
                       BCF = Bioconcentration Factor
                       GHS = Globally Harmonized System of Classification and Labelling of Chemicals
                       IATA = International Air Transport Association
                       IBC = Intermediate Bulk Container
                       IMDG = International Maritime Dangerous Goods
                       LogPow = logarithm of the octanol/water partition coefficient
                       MARPOL = International Convention for the Prevention of Pollution From Ships, 1973
                       as modified by the Protocol of 1978. ("Marpol" = marine pollution)
                       UN = United Nations

✓ Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.
DEVGUARD® 4160

DESCRIPTION
One-component, multi-purpose tank and structural primer

PRINCIPAL CHARACTERISTICS
• Rust Inhibitive interior/exterior alkyd primer
• Ideal for structural steel, tank exteriors, piping and equipment
• May be topcoated on ferrous metal with epoxy and polyurethane coatings as well as conventional alkyds and latex products
• Fast drying properties
• Lead and chromate free

COLOR AND GLOSS LEVEL
• Gray, White, Red
• Flat

BASIC DATA AT 68°F (20°C)

<table>
<thead>
<tr>
<th>Data for product</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of components</td>
<td>One</td>
</tr>
<tr>
<td>Volume solids</td>
<td>51 ± 2%</td>
</tr>
<tr>
<td>VOC (Supplied)</td>
<td>max. 3.5 lb/US gal (approx. 418 g/l)</td>
</tr>
<tr>
<td>Recommended dry film thickness</td>
<td>2.0 - 2.5 mils (50 - 64 µm) depending on system</td>
</tr>
<tr>
<td>Theoretical spreading rate</td>
<td>409 ft²/US gal for 2.0 mils (10.2 m²/l for 50 µm)</td>
</tr>
<tr>
<td>Shelf life</td>
<td>At least 12 months when stored cool and dry</td>
</tr>
</tbody>
</table>

Notes:
- See ADDITIONAL DATA — Overcoating Intervals
- See ADDITIONAL DATA — Curing time

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES
• Coating performance is, in general, proportional to the degree of surface preparation

Steel
• Remove all rust, dirt, moisture, grease or other contaminants from the surface
• Abrasive blast cleaning to SSPC SP-6 standards will give optimum performance
• Where abrasive blasting is not practical, power tool cleaning in accordance with SSPC SP-3 or hand tool cleaning to SSPC SP-2 requirements is acceptable
DEVGUARD® 4160

Galvanizing

- Degrease to SSPC SP-1 and remove any white corrosion products by hand abrasion
- Galvanizing that has had at least 12 months of exterior weathering may be coated after power washing to remove all contaminants and white rust

Substrate temperature and application conditions

- Surface temperature during application should be between 50°F (10°C) and 120°F (49°C)
- Surface temperature during application should be at least 5°F (3°C) above dew point
- Relative humidity during application and curing should not exceed 85%

Warning

Removal of old paint by sanding, scraping or other means may generate dust or fumes which contain lead. EXPOSURE TO LEAD DUST OR FUMES MAY CAUSE ADVERSE HEALTH EFFECTS, ESPECIALLY IN CHILDREN OR PREGNANT WOMEN. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as a properly fitted and approved (e.g., NIOSH approved) respirator and proper containment and cleanup. For additional information, contact the USEPA/Lead Information Hotline at 1-800-424-LEAD or the regional Health Canada office.

SYSTEM SPECIFICATION

- Primers: Direct to metal
- Topcoats: DEVGUARD 4306, DEVGUARD 4308, DEVFLEX 4206 QD, DEVFLEX 4208 QD, DEVFLEX 4212 HP, DEVFLEX 4216 HP, DEVFLEX 659, UNIGRIP 4380, UNIGRIP 4382, consult PPG technical sales for other options

Note: Consult your sales representative for additional topcoat offerings

INSTRUCTIONS FOR USE

- Inspect the top surface and remove any “skins” that may have formed on top
- Agitate with a power mixer for 1 – 2 minutes until completely dispersed. Ensure good off-bottom mixing

Application

- Area should be sheltered from airborne particulates and pollutants
- Ensure good ventilation during application and curing
- Provide shelter to prevent wind from affecting spray patterns
DEVGUARD® 4160

Air spray
- Separate air and fluid pressure regulators and a moisture and oil trap in the main air supply line are recommended.

Recommended thinner
No thinner should be added

Nozzle orifice
Approx. 0.070 in (1.8 mm)

Airless spray
- 30:1 pump or larger
- Adjust pump pressure as needed

Recommended thinner
No thinner should be added

Nozzle orifice
0.015 – 0.017 in (approx. 0.38 – 0.43 mm)

Note: Adjust pump pressure as needed

Brush/roller
- Use a high quality polyester/nylon brush and/or a high quality 3/8" nap roller. In hot or dry conditions, layoff lightly rolling with 3/8" nap roller cover. Multiple coats may be required to achieve specified film thickness

Recommended thinner
No thinner should be added

Cleaning solvent
Paint Thinner (lacquer thinner/mineral spirits) or 97-727/Amercoat 65 (xylene)

ADDITIONAL DATA

<table>
<thead>
<tr>
<th>Overcoating interval for DFT up to 2.0 mils (51 µm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overcoating with:</td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td>Itself</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Notes:
- Overcoating times valid for a relative humidity of 50%
- Drying times may vary depending on temperature, humidity, and air movement
DEVGUARD® 4160

Curing time for DFT up to 2.0 mils (51 μm)

<table>
<thead>
<tr>
<th>Substrate temperature</th>
<th>Dry to touch</th>
<th>Dry hard</th>
</tr>
</thead>
<tbody>
<tr>
<td>70°F (21°C)</td>
<td>20 minutes</td>
<td>1 hour</td>
</tr>
</tbody>
</table>

Note: Curing times valid for a relative humidity of 50%

DISCLAIMER

• For professional use only. Not for household use

SAFETY PRECAUTIONS

• For paint and recommended thinners see INFORMATION SHEETS 1430, 1431 and relevant Material Safety Data Sheets

Danger

Rags, steel wool or waste sealed with this product may spontaneously catch fire if improperly discarded. Immediately after use, place rags, steel wool or waste in sealed wax-lined metal container. Refer to www.pittsburghpaints.com, Goodmans Combustion Aid Lines for additional information.

WORLDWIDE AVAILABILITY

It is always the aim of PPG Protective and Marine Coatings to supply the same product on a worldwide basis. However, slight modification of the product is sometimes necessary to comply with local or national rules/circumstances. Under these circumstances an alternative product data sheet is used.

REFERENCES

• CONVERSION TABLES INFORMATION SHEET 1410
• EXPLANATION TO PRODUCT DATA SHEETS INFORMATION SHEET 1411
• SAFETY INDICATIONS INFORMATION SHEET 1430
• SAFETY IN CONFINED SPACES AND HEALTH SAFETY, EXPLOSION HAZARD - TOXIC HAZARD INFORMATION SHEET 1431

WARRANTY

PPG warrants (i) that the quality of the product conforms to PPG’s specifications for such product in effect at the time of manufacture and (ii) that the product shall be delivered free of the rightful claim of any third person for infringement of any U.S. patent covering the product. THESE ARE THE ONLY WARRANTIES THAT PPG MAKES AND ALL OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING FITNESS FOR A PARTICULAR PURPOSE, ARE DISCLAIMED. ANY CLAIM UNDER THIS WARRANTY MUST BE MADE BY BUYER TO PPG IN WRITING WITHIN FIVE (5) DAYS OF BUYER’S DISCOVERY OF THE CLAIMED DEFECT, BUT IN NO EVENT LATER THAN THE EXPIRATION OF THE APPLICABLE SHELF LIFE OF THE PRODUCT, OR ONE YEAR FROM THE DATE OF DELIVERY TO THE BUYER, WHICHER IS EARLIER. NO ACTION ARISING OUT OF THE SALE OF THE PRODUCT SHALL BE BROUGHT AGAINST PPG AFTER THE EXPIRATION OF THE APPLICABLE SHELF LIFE OF THE PRODUCT, OR ONE YEAR FROM THE DATE OF DELIVERY TO THE BUYER, WHICHER IS EARLIER.
LIMITATIONS OF LIABILITY

IN NO EVENT WILL PPG BE LIABLE UNDER ANY THEORY OF RECOVERY WHETHER BASED ON NEGLIGENCE OF ANY KIND, STRICT LIABILITY OR TORT, FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES IN ANY WAY RELATED TO, ARISING FROM, OR RESULTING FROM ANY USE MADE OF THE PRODUCT. The information in this sheet is intended for guidance only and is based on laboratory tests that PPG believes to be reliable. PPG may modify the information contained herein at any time as a result of practical experience and continuous product development. All recommendations or suggestions relating to the use of the PPG product, whether in technical documentation, or in response to a specific inquiry, or otherwise, are based on data, which to the best of PPG’s knowledge, is reliable. The product and related information is designed for users having the requisite knowledge and industrial skills in the industry and it is the end-user’s responsibility to determine the suitability of the product for its own particular use and it shall be deemed that Buyer has done so, as to sole discretion and risk. PPG does not control nor can it control the quality or condition of the substrate, or the many factors affecting the use and application of the product. Therefore, PPG does not accept any liability arising from any loss, injury or damage resulting from such use or the contents of this information (unless there are written agreements stating otherwise). Variations in the application environment, changes in procedures of use, or misapplication of data may cause unsatisfactory results. This sheet supersedes all previous versions and it is the Buyer’s responsibility to ensure that this information is current prior to using the product. Current sheets for all PPG Protective & Marine Coatings products are maintained at www.ppgmco.com. The English text of this sheet shall prevail over any translation thereof.

AVAILABILITY

Packaging
1-gallon and 5-gallon kits.
SAFETY DATA SHEET

Section 1. Identification

Product name: DEVGRD PRMR WH 4160-1000
Product code: 00407035
Other means of identification: Not available.
Product type: Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use: Industrial applications, Used by spraying.
Use of the substance/mixture: Coating.
Uses advised against: Not applicable.

Manufacturer: PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272
Emergency telephone number:
(412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)
Technical Phone Number: 888-977-4762

Section 2. Hazards identification

OSHA/HCS status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture: Flammable liquids - Category 3
Carcinogenicity - Category 1A
Specific target organ toxicity (single exposure) (respiratory tract irritation) - Category 3
Specific target organ toxicity (repeated exposure) (central nervous system (CNS)) - Category 1
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 60.7%

GHS label elements
Hazard pictograms: 

United States Page: 1/16
### Section 2. Hazards identification

#### Signal word
- Danger

#### Hazard statements
- Flammable liquid and vapor.
  - May cause cancer.
  - May cause respiratory irritation.
  - Causes damage to organs through prolonged or repeated exposure. (central nervous system (CNS))

#### Precautionary statements

##### Prevention
- Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

##### Response
- Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

##### Storage
- Store locked up. Store in a well-ventilated place. Keep cool.

##### Disposal
- Dispose of contents and container in accordance with all local, regional, national and international regulations.

##### Supplemental label elements
- Sanding and grinding dusts may be harmful if inhaled. This product contains crystalline silica which can cause lung cancer or silicosis. The risk of cancer depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated. DANGER - RAGS, STEEL WOOL OR WASTE SOaked WITH THIS PRODUCT MAY SPONTANEOUSLY CATCH FIRE IF IMPROPERLY DISCARDED. IMMEDIATELY AFTER EACH USE, PLACE RAGS, STEEL WOOL OR WASTE IN A SEALED WATER-FILLED METAL CONTAINER.

##### Hazards not otherwise classified
- Prolonged or repeated contact may dry skin and cause irritation.

### Section 3. Composition/information on ingredients

#### Substance/mixture
- Mixture

#### Product name
- DEVGRD PRMR WH 4160-1000
Section 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rrlc, not containing asbestiform fibres</td>
<td>≥20 - ≤50</td>
<td>14807-96-6</td>
</tr>
<tr>
<td>Solvent naphtha (petroleum), light aromatic</td>
<td>≥10 - ≤16</td>
<td>64742-95-6</td>
</tr>
<tr>
<td>heptan-2-one</td>
<td>≥5.0 - ≤10</td>
<td>110-43-0</td>
</tr>
<tr>
<td>titanium dioxide</td>
<td>≥5.0 - ≤9.6</td>
<td>13463-67-7</td>
</tr>
<tr>
<td>1,2,4-trimethylbenzene</td>
<td>≥5.0 - ≤10</td>
<td>95-63-6</td>
</tr>
<tr>
<td>Solvent naphtha (petroleum), medium aliph.</td>
<td>≥1.0 - ≤3.2</td>
<td>64742-88-7</td>
</tr>
<tr>
<td>zinc oxide</td>
<td>≥1.0 - ≤5.0</td>
<td>1314-13-2</td>
</tr>
<tr>
<td>crystalline silica, respirable powder (&gt;10 microns)</td>
<td>≤1.0</td>
<td>14808-60-7</td>
</tr>
<tr>
<td>cumene</td>
<td>&lt;1.0</td>
<td>98-82-8</td>
</tr>
<tr>
<td>2-butanone oxime</td>
<td>&lt;1.0</td>
<td>96-29-7</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>&lt;1.0</td>
<td>100-41-4</td>
</tr>
</tbody>
</table>

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

Eye contact: Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.

Inhalation: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Skin contact: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.

Ingestion: If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact: No known significant effects or critical hazards.

Inhalation: May cause respiratory irritation.

Skin contact: Defatting to the skin. May cause skin dryness and Irritation.

Ingestion: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact: No specific data.

Inhalation: Adverse symptoms may include the following:
respiratory tract irritation

coughing
## Section 4. First aid measures

**Skin contact**
- Adverse symptoms may include the following:
  - Irritation
  - Dryness
  - Cracking

**Ingestion**
- No specific data.

### Indication of immediate medical attention and special treatment needed, if necessary

**Notes to physician**
- Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments**
- No specific treatment.

**Protection of first-aiders**
- No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media
- **Suitable extinguishing media**
  - Use dry chemical, CO₂, water spray (fog) or foam.
- **Unsuitable extinguishing media**
  - Do not use water jet.

### Specific hazards arising from the chemical
- Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

### Hazardous thermal decomposition products
- Decomposition products may include the following materials:
  - Carbon dioxide
  - Carbon monoxide
  - Phosphorus oxides
  - Metal oxide/oxides

### Special protective actions for fire-fighters
- Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

### Special protective equipment for fire-fighters
- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:
No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flames, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders:
If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions:
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill:
Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill:
Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures:
Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
Section 7. Handling and storage

Special precautions: Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. Materials such as cleaning rags, paper wipes and protective clothing, which are contaminated with the product may spontaneously self-ignite some hours later. To avoid the risks of fires, all contaminated materials should be stored in purpose-built containers or in metal containers with tight-fitting, self-closing lids. Contaminated materials should be removed from the workplace at the end of each working day and be stored outside. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all its parts.

Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any Incompatibilities: Do not store above the following temperature: 35°C (95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetracl, not containing asbestiform fibres</td>
<td>ACGIH TLV (United States, 3/2015). TWA: 2 mg/m³ 8 hours. Form: Respirable fraction</td>
</tr>
<tr>
<td>Solvent naphtha (petroleum), light aromatic heptan-2-one</td>
<td>OSHA PEL Z3 (United States, 2/2013). TWA: 20 mppcf 8 hours. Form: not containing asbestos</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>None</td>
</tr>
<tr>
<td>1,2,4-trimethylbenzene</td>
<td>ACGIH TLV (United States, 3/2015). TWA: 233 mg/m³ 8 hours.</td>
</tr>
<tr>
<td>Solvent naphtha (petroleum), medium aliph.</td>
<td>ACGIH TLV (United States, 3/2015). TWA: 50 ppm 8 hours.</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 2/2013). TWA: 465 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 2/2013). TWA: 100 ppm 8 hours.</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 2/2013). TWA: 15 mg/m³ 8 hours. Form: Total dust</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV (United States, 3/2015). TWA: 10 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV (United States, 3/2015). TWA: 123 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV (United States, 3/2015). TWA: 25 ppm 8 hours.</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV (United States).</td>
</tr>
</tbody>
</table>
### Section 8. Exposure controls/personal protection

<table>
<thead>
<tr>
<th>Substance</th>
<th>TWA: 400 ppm OSHA PEL (United States, 2/2013).</th>
</tr>
</thead>
<tbody>
<tr>
<td>zinc oxide</td>
<td>TWA: 100 ppm 8 hours.</td>
</tr>
<tr>
<td></td>
<td>TWA: 400 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 2/2013).</td>
</tr>
<tr>
<td></td>
<td>TWA: 5 mg/m³ 8 hours. Form: Fume</td>
</tr>
<tr>
<td></td>
<td>TWA: 5 mg/m³ 8 hours. Form: Respirable fraction</td>
</tr>
<tr>
<td></td>
<td>TWA: 15 mg/m³ 8 hours. Form: Total dust</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV (United States, 3/2015).</td>
</tr>
<tr>
<td></td>
<td>STEL: 10 mg/m³ 15 minutes. Form: Respirable fraction</td>
</tr>
<tr>
<td></td>
<td>TWA: 2 mg/m³ 8 hours. Form: Respirable fraction</td>
</tr>
<tr>
<td>crystalline silica, respirable powder (&gt;10 microns)</td>
<td>OSHA PEL Z3 (United States, 2/2013).</td>
</tr>
<tr>
<td></td>
<td>TWA: 10 mg/m³ / (%SiO₂+2) 8 hours. Form:</td>
</tr>
<tr>
<td></td>
<td>Respirable</td>
</tr>
<tr>
<td></td>
<td>TWA: 250 mppcf / (%SiO₂+5) 8 hours. Form:</td>
</tr>
<tr>
<td></td>
<td>Respirable</td>
</tr>
<tr>
<td>cumene</td>
<td>ACGIH TLV (United States, 3/2015).</td>
</tr>
<tr>
<td></td>
<td>TWA: 0.025 mg/m³ 8 hours. Form: Respirable</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL Z3 (United States, 2/2013).</td>
</tr>
<tr>
<td></td>
<td>TWA: 30 mg/m³ Form: Total dust</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV (United States, 3/2015).</td>
</tr>
<tr>
<td></td>
<td>TWA: 50 ppm 8 hours.</td>
</tr>
<tr>
<td>2-butane oxide oxime</td>
<td>OSHA PEL (United States, 2/2013).</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>Absorbed through skin.</td>
</tr>
<tr>
<td></td>
<td>TWA: 245 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>TWA: 50 ppm 8 hours.</td>
</tr>
<tr>
<td></td>
<td>IPEL (PPG).</td>
</tr>
<tr>
<td></td>
<td>TWA: 3 ppm</td>
</tr>
<tr>
<td></td>
<td>STEL: 9 ppm</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV (United States, 3/2015).</td>
</tr>
<tr>
<td></td>
<td>TWA: 20 ppm 8 hours.</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 2/2013).</td>
</tr>
<tr>
<td></td>
<td>TWA: 435 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>TWA: 100 ppm 8 hours.</td>
</tr>
</tbody>
</table>

**Key to abbreviations**

- **A** = Acceptable Maximum Peak
- **ACGIH** = American Conference of Governmental Industrial Hygienists.
- **C** = Ceiling Limit
- **F** = Fume
- **IPEL** = Internal Permissible Exposure Limit
- **OSHA** = Occupational Safety and Health Administration.
- **R** = Respirable
- **Z** = OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances
- **S** = Potential skin absorption
- **SR** = Respiratory sensitization
- **SS** = Skin sensitization
- **STEL** = Short term Exposure limit values
- **TD** = Total dust
- **TLV** = Threshold Limit Value
- **TWA** = Time Weighted Average

Consult local authorities for acceptable exposure limits.
## Section 8. Exposure controls/personal protection

### Recommended monitoring procedures
- If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

### Appropriate engineering controls
- Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

### Environmental exposure controls
- Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

#### Hygiene measures
- Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Eye/face protection
- Safety glasses with side shields.

#### Skin protection
- Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

#### Hand protection
- For prolonged or repeated handling, use the following type of gloves:
  - Recommended: nitrile rubber

#### Gloves
- Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

#### Body protection
- Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

#### Other skin protection
- Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.
Section 9. Physical and chemical properties

**Appearance**
- **Physical state**: Liquid.
- **Color**: White.
- **Odor**: Characteristic.
- **Odor threshold**: Not available.
- **pH**: Not available.
- **Melting point**: Not available.
- **Boiling point**: >37.78°C (>100°F)
- **Flash point**: Closed cup: 42°C (107.6°F)
- **Material supports combustion**: Yes.
- **Auto-ignition temperature**: Not available.
- **Decomposition temperature**: Not available.
- **Flammability (solid, gas)**: Not available.
- **Lower and upper explosive (flammable) limits**: Lower: 1.03% Upper: 5.85%
- **Evaporation rate**: Not available.
- **Vapor pressure**: Not available.
- **Vapor density**: Not available.
- **Relative density**: 1.43
- **Density (lbs / gal)**: 11.93
- **Solubility**: Insoluble in the following materials: cold water.
- **Partition coefficient: n-octanol/water**: Not available.
- **Viscosity**: Kinematic (40°C (104°F)): >0.21 cm²/s (>21 cSt)
- **Volatility**: 48% (v/v), 28.245% (w/w)
- **% Solid, (w/w)**: 71.755

Section 10. Stability and reactivity

**Reactivity**: No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability**: The product is stable.

**Possibility of hazardous reactions**: Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid**: When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.

**Incompatible materials**: Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
Section 10. Stability and reactivity

Hazardous decomposition products: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent naphtha (petroleum), light aromatic</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>3.48 g/kg</td>
<td></td>
</tr>
<tr>
<td>heptan-2-one</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>8400 mg/kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>&gt;16.7 mg/l</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>10.206 g/kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>1.6 g/kg</td>
<td></td>
</tr>
<tr>
<td>titanium dioxide</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;11 g/kg</td>
<td></td>
</tr>
<tr>
<td>1,2,4-trimethylbenzene</td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>18000 mg/m³</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>5 g/kg</td>
<td></td>
</tr>
<tr>
<td>Solvent naphtha (petroleum), medium aliph.</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;3000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>cumene</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;5000 mg/kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>39000 mg/m³</td>
<td>4 hours</td>
</tr>
<tr>
<td>2-butanone oxime</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>12.3 g/kg</td>
<td></td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>1400 mg/kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>930 mg/kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>4000 ppm</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>17.8 g/kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3.5 g/kg</td>
<td></td>
</tr>
</tbody>
</table>

Conclusion/Summary:

There are no data available on the mixture itself.

Irritation/Corrosion

Conclusion/Summary:

Skin: There are no data available on the mixture itself.
Eyes: There are no data available on the mixture itself.
Respiratory: There are no data available on the mixture itself.

Sensitization

Conclusion/Summary:

Skin: There are no data available on the mixture itself.
Respiratory: There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary:

There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary:

There are no data available on the mixture itself.

Classification

There are no data available on the mixture itself.
**Section 11. Toxicological information**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>OSHA</th>
<th>IARC</th>
<th>NTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>titanium dioxide</td>
<td>-</td>
<td>2B</td>
<td>-</td>
</tr>
<tr>
<td>crystalline silica, respirable powder (&gt;10 microns)</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>cumene</td>
<td>-</td>
<td>2B</td>
<td>-</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>-</td>
<td>2B</td>
<td>-</td>
</tr>
</tbody>
</table>

**Carcinogen Classification code:**
- IARC: 1, 2A, 2B, 3, 4
- NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen
- OSHA: +
- Not listed/not regulated: -

**Reproductive toxicity**
- **Conclusion/Summary**: There are no data available on the mixture itself.

**Teratogenicity**
- **Conclusion/Summary**: There are no data available on the mixture itself.

**Specific target organ toxicity (single exposure)**

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talc, not containing asbestiform fibres</td>
<td>Category 3</td>
</tr>
<tr>
<td>Solvent naphtha (petroleum), light aromatic</td>
<td>Category 3</td>
</tr>
<tr>
<td>1,2,4-trimethylbenzene</td>
<td>Category 3</td>
</tr>
<tr>
<td>Solvent naphtha (petroleum), medium aliph.</td>
<td>Category 3</td>
</tr>
<tr>
<td>cumene</td>
<td>Category 3</td>
</tr>
</tbody>
</table>

**Specific target organ toxicity (repeated exposure)**

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent naphtha (petroleum), medium aliph.</td>
<td>Category 1</td>
</tr>
<tr>
<td>cumene</td>
<td>Category 2</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>Category 2</td>
</tr>
</tbody>
</table>

**Target organs**: Contains material which causes damage to the following organs: brain, skin, central nervous system (CNS). Contains material which may cause damage to the following organs: blood, kidneys, lungs, peripheral nervous system, cardiovascular system, upper respiratory tract, eye, lens or cornea.

**Aspiration hazard**

<table>
<thead>
<tr>
<th>Name</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent naphtha (petroleum), light aromatic</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
<tr>
<td>Solvent naphtha (petroleum), medium aliph.</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
<tr>
<td>cumene</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
</tbody>
</table>

**Information on the likely routes of exposure**

**Potential acute health effects**
- **Eye contact**: No known significant effects or critical hazards.
- **Inhalation**: May cause respiratory irritation.
- **Skin contact**: Defatting to the skin. May cause skin dryness and irritation.
## Section 11. Toxicological information

### Ingestion
- No known significant effects or critical hazards.

### Over-exposure signs/symptoms

- **Eye contact**: No specific data.
- **Inhalation**: Adverse symptoms may include the following:
  - Respiratory tract irritation
  - Coughing
- **Skin contact**: Adverse symptoms may include the following:
  - Irritation
  - Dryness
  - Cracking
- **Ingestion**: No specific data.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Conclusion/Summary
- There are no data available on the mixture itself. This product contains crystalline silica which can cause lung cancer or silicosis. The risk of cancer depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

### Short term exposure

#### Potential Immediate effects
- There are no data available on the mixture itself.

#### Potential delayed effects
- There are no data available on the mixture itself.

### Long term exposure

#### Potential Immediate effects
- There are no data available on the mixture itself.

#### Potential delayed effects
- There are no data available on the mixture itself.

#### Potential chronic health effects

- **General**: Causes damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
- **Carcinogenicity**: May cause cancer. Risk of cancer depends on duration and level of exposure.
- **Mutagenicity**: No known significant effects or critical hazards.
- **Teratogenicity**: No known significant effects or critical hazards.
- **Developmental effects**: No known significant effects or critical hazards.
- **Fertility effects**: No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates
Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>6174.6 mg/kg</td>
</tr>
<tr>
<td>Dermal</td>
<td>13169.4 mg/kg</td>
</tr>
<tr>
<td>Inhalation (vapors)</td>
<td>36.93 mg/l</td>
</tr>
</tbody>
</table>

Section 12. Ecological information

**Toxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fanium dioxide</td>
<td>Acute LC50 &gt;100 mg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td>zinc oxide</td>
<td>Acute EC50 0.17 mg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>72 hours</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>Acute EC50 0.481 mg/l Fresh water</td>
<td>Daphnia - Daphnia magna - Neonate</td>
<td>49 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 0.017 mg/l Fresh water</td>
<td>Daphnia - Daphnia magna - Neonate</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 150 to 200 mg/l Fresh water</td>
<td>Fish - Lepomis macrochirus - Young of the year</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

**Persistence and degradability**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethylbenzene</td>
<td>-</td>
<td>-</td>
<td>Readily</td>
</tr>
</tbody>
</table>

**Bioaccumulative potential**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP_{ow}</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>heptan-2-one</td>
<td>1.98</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>1,2,4-trimethylbenzene</td>
<td>3.63</td>
<td>120.23</td>
<td>low</td>
</tr>
<tr>
<td>cumene</td>
<td>3.66</td>
<td>35.48</td>
<td>low</td>
</tr>
<tr>
<td>2-butanone oxime</td>
<td>0.63</td>
<td>5.01</td>
<td>low</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>3.15</td>
<td>79.43</td>
<td>low</td>
</tr>
</tbody>
</table>

**Mobility in soil**

Soil/water partition coefficient (Koc): Not available.

Section 13. Disposal considerations

**Disposal methods**

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been
Section 13. Disposal considerations

Cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

<table>
<thead>
<tr>
<th></th>
<th>DOT</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number</td>
<td>UN1263</td>
<td>UN1263</td>
<td>UN1263</td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>PAINT</td>
<td>PAINT</td>
<td>PAINT</td>
</tr>
<tr>
<td>Transport hazard class (es)</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Packing group</td>
<td>III</td>
<td>III</td>
<td>III</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
</tr>
<tr>
<td>Marine pollutant substances</td>
<td>Not applicable.</td>
<td>(Solvent naphtha (petroleum), light aromatic, 1,2, 4-trimethylbenzene)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Product RQ (lbs)</td>
<td>10688.7</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>RQ substances</td>
<td>(xylene)</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

Additional information

DOT: This product may be re-classified as "Combustible Liquid," unless transported by vessel or aircraft. Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials in package sizes less than the product reportable quantity.

IMDG: The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.

IATA: The environmentally hazardous substance mark may appear if required by other transportation regulations.

Special precautions for user: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
Section 15. Regulatory information

United States

United States inventory (TSCA 8b) : All components are listed or exempted.

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : Fire hazard

Immediate (acute) health hazard

Delayed (chronic) health hazard

Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>Fire hazard</th>
<th>Sudden release of pressure</th>
<th>Reactive</th>
<th>Immediate (acute) health hazard</th>
<th>Delayed (chronic) health hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talc, not containing asbestos form fibres</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
</tr>
<tr>
<td>Solvent naphtha (petroleum), light aromatic</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
</tr>
<tr>
<td>titanium dioxide</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
</tr>
<tr>
<td>1,2,4-trimethylbenzene</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
</tr>
<tr>
<td>crystalline silica, respirable powder (&gt;10 microns)</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
</tr>
<tr>
<td>cumene</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>Yes.</td>
</tr>
<tr>
<td>2-butanone oxime</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>Yes.</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>Yes.</td>
</tr>
</tbody>
</table>

SARA 313

Chemical name | CAS number | Concentration
--- | --- | ---
1,2,4-trimethylbenzene | 95-63-6 | 3 - 7
trizinc bis(orthophosphate) | 7779-90-0 | 0.5 - 1.5
zinc oxide | 1314-13-2 | 0.5 - 1.5
ethylbenzene | 100-41-4 | 0.1 - 1

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.
Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health: 2  Flammability: 2  Physical hazards: 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

Health: 2  Flammability: 2  Instability: 0

Date of previous issue: 7/15/2016

Organization that prepared the MSDS: EHS

Key to abbreviations:
- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- UN = United Nations

* Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

United States Page: 16/16
SAFETY DATA SHEET

Date of issue/Date of revision 1 May 2016
Version 7

Section 1. Identification

Product name : DEVGRD GLOSS WH 4308-0100
Product code : 00407134
Other means of identification : Not available.
Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Industrial applications, Used by spraying.
Use of the substance/mixture : Coating.
Uses advised against : Not applicable.

Manufacturer : PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

Emergency telephone number : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)

Technical Phone Number : 888-977-4762

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION (Fertility) - Category 2
TOXIC TO REPRODUCTION (Unborn child) - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (central nervous system (CNS)) - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 35.7%

GHS label elements
Precautionary statements

**Prevention**
- Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection.
- Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge.
- Keep container tightly closed.
- Use only outdoors or in a well-ventilated area. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

**Response**
- Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

**Storage**
- Store locked up. Store in a well-ventilated place. Keep cool.

**Disposal**
- Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Supplemental label elements**
- Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.
- DANGER - RAGS, STEEL WOOL OR WASTE SOAKED WITH THIS PRODUCT MAY SPONTANEOUSLY CATCH FIRE IF IMPROPERLY DISCARDED. IMMEDIATELY AFTER EACH USE, PLACE RAGS, STEEL WOOL OR WASTE IN A SEALED WATER-FILLED METAL CONTAINER.

**Hazards not otherwise classified**
- Prolonged or repeated contact may dry skin and cause irritation.
Section 3. Composition/information on ingredients

Substance/mixture: Mixture
Product name: DEVGRD GLOSS WH 4308-0100

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent naphtha (petroleum), medium aliph.</td>
<td>≥20 - ≤50</td>
<td>64742-88-7</td>
</tr>
<tr>
<td>titanium dioxide</td>
<td>≥20 - ≤50</td>
<td>13463-67-7</td>
</tr>
<tr>
<td>Naphtha (petroleum), hydrotreated heavy</td>
<td>≥10 - &lt;20</td>
<td>64742-48-9</td>
</tr>
<tr>
<td>2-butane oxide oxime</td>
<td>&lt;1.0</td>
<td>96-29-7</td>
</tr>
<tr>
<td>2-ethylhexanoic acid, zirconium salt</td>
<td>≤1.0</td>
<td>22464-99-9</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>&lt;1.0</td>
<td>100-41-4</td>
</tr>
</tbody>
</table>

SUB codes represent substances without registered CAS Numbers.
Any concentration shown as a range is to protect confidentiality or is due to batch variation.
There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.
Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

Eye contact: Remove contact lenses, irrigate copiously with clear, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
Inhalation: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
Skin contact: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
Ingestion: If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact: Causes serious eye irritation.
Inhalation: Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
Skin contact: Defatting to the skin. May cause skin dryness and irritation.
Ingestion: Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:
  - pain or irritation
  - watering
  - redness

United States Page: 3/16
### Section 4. First aid measures

**Inhalation**
- Adverse symptoms may include the following:
  - nausea or vomiting
  - headache
  - drowsiness/fatigue
  - dizziness/vertigo
  - unconsciousness
  - reduced fetal weight
  - increase in fetal deaths
  - skeletal malformations

**Skin contact**
- Adverse symptoms may include the following:
  - irritation
  - dryness
  - cracking
  - reduced fetal weight
  - increase in fetal deaths
  - skeletal malformations

**Ingestion**
- Adverse symptoms may include the following:
  - reduced fetal weight
  - increase in fetal deaths
  - skeletal malformations

**Indication of immediate medical attention and special treatment needed, if necessary**

**Notes to physician**
- Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments**
- No specific treatment.

**Protection of first-aiders**
- No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

### Section 5. Fire-fighting measures

**Extinguishing media**
- **Suitable extinguishing media**
  - Use dry chemical, CO₂, water spray (fog) or foam.
- **Unsuitable extinguishing media**
  - Do not use water jet.

**Specific hazards arising from the chemical**
- Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Section 5. Fire-fighting measures

Hazardous thermal decomposition products: Decomposition products may include the following materials:
metal oxide/oxides

Special protective actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up:

Small spill: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.
Section 7. Handling and storage

Precautions for safe handling

Protective measures: Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Special precautions: Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. Materials such as cleaning rags, paper wipes and protective clothing, which are contaminated with the product may spontaneously self-ignite some hours later. To avoid the risks of fires, all contaminated materials should be stored in purpose-built containers or in metal containers with tight-fitting, self-closing lids. Contaminated materials should be removed from the workplace at the end of each working day and be stored outside. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.

Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities: Do not store above the following temperature: 35°C (95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits
# Section 8. Exposure controls/personal protection

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent naphtha (petroleum), medium aliph.</td>
<td>ACGIH TLV (United States). TWA: 400 ppm</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 2/2013). TWA: 100 ppm 8 hours.</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 2/2013). TWA: 400 mg/m³ 8 hours.</td>
</tr>
<tr>
<td>titanium dioxide</td>
<td></td>
</tr>
<tr>
<td>Naphtha (petroleum), hydrotreated heavy 2-butanone oxime</td>
<td></td>
</tr>
<tr>
<td>2-ethylhexanoic acid, zirconium salt</td>
<td>ACGIH TLV (United States, 3/2015). TWA: 10 mg/m³ 8 hours.</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>STEL: 10 mg/m³, (as Zr) 15 minutes.</td>
</tr>
<tr>
<td></td>
<td>TWA: 5 mg/m³, (as Zr) 8 hours.</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 2/2013). TWA: 5 mg/m³, (as Zr) 8 hours.</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV (United States, 3/2015). TWA: 20 ppm 8 hours.</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 2/2013). TWA: 435 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>TWA: 100 ppm 8 hours.</td>
</tr>
</tbody>
</table>

**Key to abbreviations**

- **A** = Acceptable Maximum Peak
- **ACGIH** = American Conference of Governmental Industrial Hygienists
- **C** = Ceiling Limit
- **F** = Fume
- **FEL** = Internal Permissible Exposure Limit
- **OSHA** = Occupational Safety and Health Administration
- **R** = Respirable
- **Z** = OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances
- **S** = Potential skin absorption
- **SR** = Respiratory sensitization
- **SS** = Skin sensitization
- **STEL** = Short term Exposure limit values
- **TD** = Total dust
- **TLV** = Threshold Limit Value
- **TWA** = Time Weighted Average

Consult local authorities for acceptable exposure limits.

**Recommended monitoring procedures**

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**Appropriate engineering controls**

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**Environmental exposure controls**

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
Section 8. Exposure controls/personal protection

Individual protection measures

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Skin protection

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Gloves: For prolonged or repeated handling, use the following type of gloves:

Recommended: nitrile rubber

Body protection

Other skin protection

Respiratory protection: Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Section 9. Physical and chemical properties

Appearance

Physical state: Liquid.
Color: White.
Odor: Characteristic.
Odor threshold: Not available.
pH: Not available.
Melting point: Not available.
Boiling point: >37.78°C (>100°F)
Flash point: Closed cup: 41°C (105.8°F)
Material supports combustion: Yes.
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
Section 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Lower and upper explosive</td>
<td>Lower: 0.74%</td>
</tr>
<tr>
<td>(flammable) limits</td>
<td>Upper: 6.08%</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.11</td>
</tr>
<tr>
<td>Density (lbs/gal)</td>
<td>9.26</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble in the following materials: cold water.</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Kinematic (40°C (104°F)): &gt;0.21 cm²/s (&gt;21 cSt)</td>
</tr>
<tr>
<td>Volatility</td>
<td>55% (v/v), 38.622% (w/w)</td>
</tr>
<tr>
<td>% Solid. (w/w)</td>
<td>61.378</td>
</tr>
</tbody>
</table>

Section 10. Stability and reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactivity</td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
</tr>
<tr>
<td>Chemical stability</td>
<td>The product is stable.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.</td>
</tr>
<tr>
<td>Incompatible materials</td>
<td>Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.</td>
</tr>
</tbody>
</table>

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity
# Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent naphtha (petroleum), medium aliph.</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;3000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;11 g/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>8500 mg/m³</td>
<td>4 hours</td>
</tr>
<tr>
<td>titanium dioxide</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;6 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>Naphtha (petroleum), hydrotreated heavy</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>930 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rat</td>
<td>&gt;5 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>2-butanone oxime</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;5 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>2-ethylhexanoic acid, zirconium salt</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>4000 ppm</td>
<td>4 hours</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>17.8 g/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>3.5 g/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Conclusion/Summary: There are no data available on the mixture itself.

### Irritation/Corrosion

- **Skin**: There are no data available on the mixture itself.
- **Eyes**: There are no data available on the mixture itself.
- **Respiratory**: There are no data available on the mixture itself.

### Sensitization

- **Skin**: There are no data available on the mixture itself.
- **Respiratory**: There are no data available on the mixture itself.

### Mutagenicity

Conclusion/Summary: There are no data available on the mixture itself.

### Carcinogenicity

Conclusion/Summary: There are no data available on the mixture itself.

### Classification

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>OSHA</th>
<th>IARC</th>
<th>NTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>titanium dioxide</td>
<td>-</td>
<td>2B</td>
<td>-</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>-</td>
<td>2B</td>
<td>-</td>
</tr>
</tbody>
</table>

Carcinogen Classification code:
- **IARC**: 1, 2A, 2B, 3, 4
- **NTP**: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen
- **OSHA**: +
- Not listed/not regulated: -

### Reproductive toxicity

Conclusion/Summary: There are no data available on the mixture itself.

### Teratogenicity

Conclusion/Summary: There are no data available on the mixture itself.

### Specific target organ toxicity (single exposure)
Section 11. Toxicological information

### Specific target organ toxicity (repeated exposure)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent naphtha (petroleum), medium aliph.</td>
<td>Category 3</td>
</tr>
<tr>
<td>Naphtha (petroleum), hydrotreated heavy</td>
<td>Category 3</td>
</tr>
</tbody>
</table>

### Target organs

Contains material which causes damage to the following organs: brain, skin, central nervous system (CNS).

Contains material which may cause damage to the following organs: kidneys, upper respiratory tract.

### Aspiration hazard

<table>
<thead>
<tr>
<th>Name</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent naphtha (petroleum), medium aliph.</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
<tr>
<td>Naphtha (petroleum), hydrotreated heavy</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
</tbody>
</table>

### Information on the likely routes of exposure

#### Potential acute health effects

**Eye contact**: Causes serious eye irritation.

**Inhalation**: Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

**Skin contact**: Defatting to the skin. May cause skin dryness and irritation.

**Ingestion**: Can cause central nervous system (CNS) depression.

#### Over-exposure signs/symptoms

**Eye contact**: Adverse symptoms may include the following:
- pain or irritation
- watering
- redness

**Inhalation**: Adverse symptoms may include the following:
- nausea or vomiting
- headache
- drowsiness/fatigue
- dizziness/vertigo
- unconsciousness
- reduced fetal weight
- increase in fetal deaths
- skeletal malformations

**Skin contact**: Adverse symptoms may include the following:
- irritation
- dryness
- cracking
- reduced fetal weight
- increase in fetal deaths
- skeletal malformations

---

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Section 11. Toxicological information

Ingestion:
Adverse symptoms may include the following:
- Reduced fetal weight
- Increase in fetal deaths
- Skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Conclusion/Summary:
There are no data available on the mixture itself. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate effects:
There are no data available on the mixture itself.

Potential delayed effects:
There are no data available on the mixture itself.

Long term exposure

Potential immediate effects:
There are no data available on the mixture itself.

Potential delayed effects:
There are no data available on the mixture itself.

Potential chronic health effects

General:
Causes damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

Carcinogenicity:
Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity:
No known significant effects or critical hazards.

Teratogenicity:
Suspected of damaging the unborn child.

Developmental effects:
No known significant effects or critical hazards.

Fertility effects:
Suspected of damaging fertility.

Numerical measures of toxicity

Acute toxicity estimates

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation (vapors)</td>
<td>46.94 mg/l</td>
</tr>
</tbody>
</table>
Section 12. Ecological information

Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>titanium dioxide</td>
<td>Acute LC50 &gt;100 mg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>Acute LC50 150 to 200 mg/l Fresh water</td>
<td>Fish - Lepomis macrochirus - Young of the year</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

Persistence and degradability

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethylbenzene</td>
<td>-</td>
<td>-</td>
<td>Readily</td>
</tr>
</tbody>
</table>

Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP&lt;sub&gt;oc&lt;/sub&gt;</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butanone oxime</td>
<td>0.63</td>
<td>5.01</td>
<td>low</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>3.15</td>
<td>79.43</td>
<td>low</td>
</tr>
</tbody>
</table>

Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>): Not available.

Section 13. Disposal considerations

Disposal methods: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures
14. Transport information

<table>
<thead>
<tr>
<th></th>
<th>DOT</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number</td>
<td>UN1263</td>
<td>UN1263</td>
<td>UN1263</td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>PAINT</td>
<td>PAINT</td>
<td>PAINT</td>
</tr>
<tr>
<td>Transport hazard class (es)</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Packing group</td>
<td>III</td>
<td>III</td>
<td>III</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
</tr>
<tr>
<td>Marine pollutant substances</td>
<td>Not applicable.</td>
<td>(Solvent naphtha (petroleum), medium aliph.)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Product RQ (lbs)</td>
<td>11148.4</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>RQ substances</td>
<td>(xylene)</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

Additional information

**DOT**: This product may be re-classified as "Combustible Liquid," unless transported by vessel or aircraft. Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials in package sizes less than the product reportable quantity.

**IMDG**: The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.

**IATA**: The environmentally hazardous substance mark may appear if required by other transportation regulations.

Special precautions for user: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

**United States**

United States inventory (TSCA 8b): All components are listed or exempted.

**SARA 302/304**

SARA 304 RQ: Not applicable.

**Composition/information on ingredients**

No products were found.

**SARA 311/312**

Classification: Fire hazard
Immediate (acute) health hazard
Delayed (chronic) health hazard

**Composition/information on ingredients**
## Section 15. Regulatory information

<table>
<thead>
<tr>
<th>Name</th>
<th>Fire hazard</th>
<th>Sudden release of pressure</th>
<th>Reactive</th>
<th>Immediate (acute) health hazard</th>
<th>Delayed (chronic) health hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent naphtha (petroleum), medium aliph. titanium dioxide</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>Yes.</td>
</tr>
<tr>
<td>Naphtha (petroleum), hydrotreated heavy</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
</tr>
<tr>
<td>2-butanone oxime</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>Yes.</td>
</tr>
<tr>
<td>2-ethylhexanoic acid, zirconium salt ethylbenzene</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
</tr>
</tbody>
</table>

### SARA 313

<table>
<thead>
<tr>
<th>Supplier notification</th>
<th>Chemical name</th>
<th>CAS number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethylbenzene</td>
<td>100-41-4</td>
<td>0.1 - 1</td>
<td></td>
</tr>
</tbody>
</table>

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

### California Prop. 65

**WARNING:** This product contains a chemical known to the State of California to cause cancer.

## Section 16. Other information

### Hazardous Material Information System (U.S.A.)

- **Health:** 2  
  - Flammability: 2  
  - Physical hazards: 0

  (* *) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J.J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

### National Fire Protection Association (U.S.A.)

- **Health:** 2  
  - Flammability: 2  
  - Instability: 0

**Date of previous issue:** 2/24/2016  
**Organization that prepared the MSDS:** EHS

### Key to abbreviations

- ATE = Acute Toxicity Estimate  
- BCF = Bioconcentration Factor  
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
- IATA = International Air Transport Association  
- IBC = Intermediate Bulk Container  
- IMDG = International Maritime Dangerous Goods  
- LogPow = logarithm of the octanol/water partition coefficient  
- UN = United Nations
Section 16. Other information

Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.
**Section 1. Identification**

<table>
<thead>
<tr>
<th>Product name</th>
<th>DGUARD ALKGLO MBASE 4308-0200</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>00407137</td>
</tr>
<tr>
<td>Other means of identification</td>
<td>Not available.</td>
</tr>
<tr>
<td>Product type</td>
<td>Liquid.</td>
</tr>
</tbody>
</table>

**Relevant identified uses of the substance or mixture and uses advised against**

<table>
<thead>
<tr>
<th>Product use</th>
<th>Industrial applications, Used by spraying.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of the substance/mixture</td>
<td>Coating.</td>
</tr>
<tr>
<td>Uses advised against</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

**Manufacturer**

PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

**Emergency telephone number**

- (412) 434-4515 (U.S.)
- (514) 645-1320 (Canada)
- 01-800-00-21-400 (Mexico)
- 888-977-4762

**Section 2. Hazards identification**

**OSHA/HCS status**

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture**

- FLAMMABLE LIQUIDS - Category 3
- EYE IRRITATION - Category 2A
- CARCINOGENICITY - Category 2
- TOXIC TO REPRODUCTION (Fertility) - Category 2
- TOXIC TO REPRODUCTION (Unborn child) - Category 2
- SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
- SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (central nervous system (CNS)) - Category 1

**Percentage of the mixture consisting of ingredient(s) of unknown toxicity:** 38.8%
**Section 2. Hazards identification**

**Signal word**
- Danger

**Hazard statements**
- Flammable liquid and vapor.
- Causes serious eye irritation.
- Suspected of damaging fertility or the unborn child.
- Suspected of causing cancer.
- May cause drowsiness or dizziness.
- Causes damage to organs through prolonged or repeated exposure. (central nervous system (CNS))

**Precautionary statements**

**Prevention**
- Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

**Response**
- Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

**Storage**
- Store locked up. Store in a well-ventilated place. Keep cool.

**Disposal**
- Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Supplemental label elements**
- Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated. DANGER - RAGS, STEEL WOOL OR WASTE SOAKED WITH THIS PRODUCT MAY SPONTANEOUSLY CATCH FIRE IF IMPROPERLY DISCARDED. IMMEDIATELY AFTER EACH USE, PLACE RAGS, STEEL WOOL OR WASTE IN A SEALED WATER-FILLED METAL CONTAINER.

**Hazards not otherwise classified**
- Prolonged or repeated contact may dry skin and cause irritation.
Section 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent naphtha (petroleum), medium aliph.</td>
<td>≥20 - ≤50</td>
<td>64742-88-7</td>
</tr>
<tr>
<td>titanium dioxide</td>
<td>≥10 - ≤20</td>
<td>13463-67-7</td>
</tr>
<tr>
<td>Naphtha (petroleum), hydrotreated heavy</td>
<td>≥10 - &lt;20</td>
<td>64742-48-9</td>
</tr>
<tr>
<td>2-butanone oxime</td>
<td>&lt;1.0</td>
<td>96-29-7</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>&lt;1.0</td>
<td>100-41-4</td>
</tr>
<tr>
<td>2-ethylhexanoic acid, zirconium salt</td>
<td>≤1.0</td>
<td>22464-99-9</td>
</tr>
</tbody>
</table>

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

**Eye contact**: Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.

**Inhalation**: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

**Skin contact**: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.

**Ingestion**: If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

**Most important symptoms/effects, acute and delayed**

**Potential acute health effects**

**Eye contact**: Causes serious eye irritation.

**Inhalation**: Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

**Skin contact**: Defatting to the skin. May cause skin dryness and irritation.

**Ingestion**: Can cause central nervous system (CNS) depression.

**Over-exposure signs/symptoms**

**Eye contact**: Adverse symptoms may include the following:

- pain or irritation
- watering
- redness
Section 4. First aid measures

Inhalation: Adverse symptoms may include the following:
- Nausea or vomiting
- Headache
- Drowsiness/fatigue
- Dizziness/vertigo
- Unconsciousness
- Reduced fetal weight
- Increase in fetal deaths
- Skeletal malformations

Skin contact: Adverse symptoms may include the following:
- Irritation
- Dryness
- Cracking
- Reduced fetal weight
- Increase in fetal deaths
- Skeletal malformations

Ingestion: Adverse symptoms may include the following:
- Reduced fetal weight
- Increase in fetal deaths
- Skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments: No specific treatment.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media: Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media: Do not use water jet.

Specific hazards arising from the chemical: Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Section 5. Fire-fighting measures

Hazardous thermal decomposition products: Decomposition products may include the following materials: metal oxide/oxides

Special protective actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.
Section 7. Handling and storage

Precautions for safe handling

Protective measures: Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Special precautions: Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. Materials such as cleaning rags, paper wipes and protective clothing, which are contaminated with the product may spontaneously self-ignite some hours later. To avoid the risks of fires, all contaminated materials should be stored in purpose-built containers or in metal containers with tight-fitting, self-closing lids. Contaminated materials should be removed from the workplace at the end of each working day and be stored outside. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.

Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities: Do not store above the following temperature: 35°C (95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits
# Section 8. Exposure controls/personal protection

## Ingredient name

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
</table>
| Solvent naphtha (petroleum), medium aliph. | ACGIH TLV (United States).  
TWA: 400 ppm  
OSHA PEL (United States, 2/2013).  
TWA: 100 ppm 8 hours.  
TWA: 400 mg/m³ 8 hours. |
| titanium dioxide | OSHA PEL (United States, 2/2013).  
TWA: 15 mg/m³ 8 hours. Form: Total dust |
| Naphtha (petroleum), hydrotreated heavy | None.  
IPEL (PPG).  
TWA: 3 ppm  
STEL: 9 ppm |
| 2-butanone oxime | ACGIH TLV (United States, 3/2015).  
TWA: 15 mg/m³ 8 hours.  
OSHA PEL (United States, 2/2013).  
TWA: 435 mg/m³ 8 hours.  
TWA: 100 ppm 8 hours. |
| ethylbenzene | OSHA PEL (United States, 2/2013).  
TWA: 20 ppm 8 hours.  
TWA: 400 mg/m³ 8 hours.  
TWA: 100 ppm 8 hours. |
| 2-ethylhexanoic acid, zirconium salt | ACGIH TLV (United States, 3/2015).  
STEL: 10 mg/m³, (as Zr) 15 minutes.  
TWA: 5 mg/m³, (as Zr) 8 hours.  
OSHA PEL (United States, 2/2013).  
TWA: 5 mg/m³, (as Zr) 8 hours. |

## Key to abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Acceptable Maximum Peak</td>
</tr>
<tr>
<td>ACGIH</td>
<td>American Conference of Governmental Industrial Hygienists.</td>
</tr>
<tr>
<td>C</td>
<td>Ceiling Limit</td>
</tr>
<tr>
<td>F</td>
<td>Fume</td>
</tr>
<tr>
<td>IPEL</td>
<td>Internal Permissible Exposure Limit</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Safety and Health Administration.</td>
</tr>
<tr>
<td>R</td>
<td>Respirable</td>
</tr>
<tr>
<td>Z</td>
<td>OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances</td>
</tr>
<tr>
<td>S</td>
<td>Potential skin absorption</td>
</tr>
<tr>
<td>SR</td>
<td>Respiratory sensitization</td>
</tr>
<tr>
<td>SS</td>
<td>Skin sensitization</td>
</tr>
<tr>
<td>STEL</td>
<td>Short term Exposure limit values</td>
</tr>
<tr>
<td>TD</td>
<td>Total dust</td>
</tr>
<tr>
<td>TLV</td>
<td>Threshold Limit Value</td>
</tr>
<tr>
<td>TWA</td>
<td>Time Weighted Average</td>
</tr>
</tbody>
</table>

## Consult local authorities for acceptable exposure limits.

### Recommended monitoring procedures

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

### Appropriate engineering controls

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

### Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
Section 8. Exposure controls/personal protection

**Individual protection measures**

**Hygiene measures**
- Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection**
- Chemical splash goggles.

**Skin protection**
- Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Gloves**
- For prolonged or repeated handling, use the following type of gloves:
  - Recommended: nitrile rubber

**Body protection**
- Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

**Other skin protection**
- Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection**
- Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Section 9. Physical and chemical properties

**Appearance**
- **Physical state**: Liquid.
- **Color**: White.
- **Odor**: Characteristic.
- **Odor threshold**: Not available.
- **pH**: Not available.
- **Melting point**: Not available.
- **Boiling point**: >37.78°C (>100°F)
- **Flash point**: Closed cup: 41°C (105.8°F)
- **Material supports combustion**: Yes.
- **Auto-ignition temperature**: Not available.
- **Decomposition temperature**: Not available.
Section 9. Physical and chemical properties

- Flammability (solid, gas): Not available.
- Lower and upper explosive (flammable) limits:
  - Lower: 0.73%
  - Upper: 6.27%
- Evaporation rate: Not available.
- Vapor pressure: Not available.
- Vapor density: Not available.
- Relative density: 1.05
- Density (lbs/gal): 8.76
- Solubility: Insoluble in the following materials: cold water.
- Partition coefficient: n-octanol/water: Not available.
- Viscosity: Kinematic (40°C (104°F)): >0.21 cm²/s (>21 cSt)
- Volatility: 41.102% (v/v), 41.102% (w/w)
- % Solid (w/w): 8.898

Section 10. Stability and reactivity

- Reactivity: No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability: The product is stable.
- Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid: When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.
- Incompatible materials: Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
- Hazardous decomposition products: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity
## Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent naphtha (petroleum), medium aliph.</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;3000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;11 g/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>8500 mg/m³</td>
<td>4 hours</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;6 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>Naphtha (petroleum), hydrotreated heavy</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>930 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>4000 ppm</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rat</td>
<td>17.8 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>2-butane oxide</td>
<td>LD50 Oral</td>
<td>Rabbit</td>
<td>&gt;5 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;5 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>2-ethylhexanoic acid, zirconium salt</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;5 g/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

**Conclusion/Summary**: There are no data available on the mixture itself.

### Irritation/Corrosion

**Conclusion/Summary**

- **Skin**: There are no data available on the mixture itself.
- **Eyes**: There are no data available on the mixture itself.
- **Respiratory**: There are no data available on the mixture itself.

### Sensitization

**Conclusion/Summary**

- **Skin**: There are no data available on the mixture itself.
- **Respiratory**: There are no data available on the mixture itself.

### Mutagenicity

**Conclusion/Summary**

- There are no data available on the mixture itself.

### Carcinogenicity

**Conclusion/Summary**

- There are no data available on the mixture itself.

### Classification

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>OSHA</th>
<th>IARC</th>
<th>NTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>-</td>
<td>2B</td>
<td>-</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>-</td>
<td>2B</td>
<td>-</td>
</tr>
</tbody>
</table>

Carcinogen Classification code:

- **IARC**: 1, 2A, 2B, 3, 4
- **NTP**: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen
- **OSHA**: +
- Not listed/not regulated: -

### Reproductive toxicity

**Conclusion/Summary**

- There are no data available on the mixture itself.

### Teratogenicity

**Conclusion/Summary**

- There are no data available on the mixture itself.

### Specific target organ toxicity (single exposure)
Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent naphtha (petroleum), medium aliph.</td>
<td>Category 3</td>
</tr>
<tr>
<td>Naphtha (petroleum), hydrotreated heavy</td>
<td>Category 3</td>
</tr>
</tbody>
</table>

Specific target organ toxicity (repeated exposure)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent naphtha (petroleum), medium aliph.</td>
<td>Category 1</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>Category 2</td>
</tr>
</tbody>
</table>

Target organs

- Contains material which causes damage to the following organs: brain, skin, central nervous system (CNS).
- Contains material which may cause damage to the following organs: kidneys, upper respiratory tract.

Aspiration hazard

<table>
<thead>
<tr>
<th>Name</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent naphtha (petroleum), medium aliph.</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
<tr>
<td>Naphtha (petroleum), hydrotreated heavy</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
</tbody>
</table>

Information on the likely routes of exposure

Potential acute health effects

**Eye contact**: Causes serious eye irritation.

**Inhalation**: Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

**Skin contact**: Defatting to the skin. May cause skin dryness and irritation.

**Ingestion**: Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

**Eye contact**: Adverse symptoms may include the following:
- pain or irritation
- watering
- redness

**Inhalation**: Adverse symptoms may include the following:
- nausea or vomiting
- headache
- drowsiness/fatigue
- dizziness/vertigo
- unconsciousness
- reduced fetal weight
- increase in fetal deaths
- skeletal malformations

**Skin contact**: Adverse symptoms may include the following:
- irritation
- dryness
- cracking
- reduced fetal weight
- increase in fetal deaths
- skeletal malformations
Section 11. Toxicological information

Ingestion: Adverse symptoms may include the following:
- reduced fetal weight
- increase in fetal deaths
- skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Conclusion/Summary:
There are no data available on the mixture itself. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate effects: There are no data available on the mixture itself.
Potential delayed effects: There are no data available on the mixture itself.

Long term exposure

Potential immediate effects: There are no data available on the mixture itself.
Potential delayed effects: There are no data available on the mixture itself.
Potential chronic health effects

General: Causes damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
Carcinogenicity: Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity: Suspected of damaging the unborn child.
Developmental effects: No known significant effects or critical hazards.
Fertility effects: Suspected of damaging fertility.

Numerical measures of toxicity

Acute toxicity estimates

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation (vapors)</td>
<td>44.4 mg/l</td>
</tr>
</tbody>
</table>

United States Page: 12/16
**Section 12. Ecological information**

### Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic oxide</td>
<td>Acute LC50 &gt;100 mg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>Acute LC50 150 to 200 mg/l Fresh water</td>
<td>Fish - Lepomis macrochirus - Young of the year</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

### Persistence and degradability

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylbenzene</td>
<td>-</td>
<td>-</td>
<td>Readily</td>
</tr>
</tbody>
</table>

### Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP&lt;sub&gt;ow&lt;/sub&gt;</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-Butylmethacrylate</td>
<td>0.63</td>
<td>5.01</td>
<td>low</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>3.15</td>
<td>79.43</td>
<td>low</td>
</tr>
</tbody>
</table>

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)**: Not available.

---

**Section 13. Disposal considerations**

**Disposal methods**

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures
## 14. Transport information

<table>
<thead>
<tr>
<th></th>
<th>DOT</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number</td>
<td>UN1263</td>
<td>UN1263</td>
<td>UN1263</td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>PAINT</td>
<td>PAINT</td>
<td>PAINT</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Packing group</td>
<td>III</td>
<td>III</td>
<td>III</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
</tr>
<tr>
<td>Marine pollutant substances</td>
<td>Not applicable.</td>
<td>(Solvent naphtha (petroleum), medium aliph.)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Product RQ (lbs)</td>
<td>3241.8</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>RQ substances</td>
<td>(xylene)</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

**Additional information**

**DOT**: This product may be re-classified as "Combustible Liquid," unless transported by vessel or aircraft. Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials in package sizes less than the product reportable quantity.

**IMDG**: The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.

**IATA**: The environmentally hazardous substance mark may appear if required by other transportation regulations.

**Special precautions for user**: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

## Section 15. Regulatory information

**United States**

**United States inventory (TSCA 8b)**: All components are listed or exempted.

**SARA 302/304**

**SARA 304 RQ**: Not applicable.

**Composition/information on ingredients**

No products were found.

**SARA 311/312**

**Classification**: Fire hazard
- Immediate (acute) health hazard
- Delayed (chronic) health hazard

**Composition/information on ingredients**
Section 15. Regulatory information

<table>
<thead>
<tr>
<th>Name</th>
<th>Fire hazard</th>
<th>Sudden release of pressure</th>
<th>Reactive</th>
<th>Immediate (acute) health hazard</th>
<th>Delayed (chronic) health hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent naphtha (petroleum), medium aliph. titanium dioxide</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>Yes.</td>
</tr>
<tr>
<td>Naphtha (petroleum), hydrotreated heavy</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
</tr>
<tr>
<td>2-butanone oxime</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>Yes.</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>Yes.</td>
</tr>
<tr>
<td>2-ethylhexanoic acid, zirconium salt</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
</tr>
</tbody>
</table>

SARA 313

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supplier notification</td>
<td>ethylbenzene</td>
<td>100-41-4</td>
</tr>
</tbody>
</table>

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 2  * Flammability : 2  Physical hazards : 0

( * ) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

Health : 2  Flammability : 2  Instability : 0

Date of previous issue : 5/1/2016

Organization that prepared the MSDS : EHS

Key to abbreviations : ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
UN = United Nations
Section 16. Other information

Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.