

# SAFETY DATA SHEET



Date of issue/Date of revision 4 October 2016

Version 15

## Section 1. Identification

**Product name** : EZ™ Spray 2K Aerosol Application System  
**Product code** : MAP-LV2K15-1  
**Other means of identification** : Not available.  
**Product type** : Aerosol.

### 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 (Mexico)

**Technical Phone Number** : (740) 363-9610 (DELAWARE, OH) 8:00 a.m. - 5:00 p.m. 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** :  FLAMMABLE AEROSOLS - Category 1  
GASES UNDER PRESSURE - Compressed gas  
SKIN IRRITATION - Category 2  
EYE IRRITATION - Category 2A  
RESPIRATORY SENSITIZATION - Category 1  
SKIN SENSITIZATION - Category 1  
CARCINOGENICITY - Category 1A  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (central nervous system (CNS), kidneys and liver) - Category 2  
 Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 56.8%

### GHS label elements

## Section 2. Hazards identification

### Hazard pictograms



### Signal word

: Danger

### Hazard statements

:  Extremely flammable aerosol.  
Contains gas under pressure; may explode if heated.  
Causes serious eye irritation.  
Causes skin irritation.  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause an allergic skin reaction.  
May cause cancer.  
May cause respiratory irritation.  
May cause damage to organs through prolonged or repeated exposure. (central nervous system (CNS), kidneys, liver)

### 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. Wear respiratory protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Do not breathe dust or mist. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Pressurized container: Do not pierce or burn, even after use.

#### Response

:  Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. 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. 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. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place.

#### Disposal

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

### Supplemental label elements

: Moisture-sensitive material. Contents under pressure. In a fire or if heated, a pressure increase will occur and the container may burst or explode. Do not puncture or incinerate. Keep away from heat and direct sunlight. 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. 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

## Section 2. Hazards identification

recurrent respiratory disease should not be employed in any process in which this product is used. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.

**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** : EZ™ Spray 2K Aerosol Application System

Ingredient name	%	CAS number
4-chloro- $\alpha,\alpha,\alpha$ -trifluorotoluene	$\geq 75 - \leq 90$	98-56-6
dimethyl ether	$\geq 20 - \leq 42$	115-10-6
titanium dioxide	$\geq 10 - \leq 20$	13463-67-7
Talc, not containing asbestiform fibres	$\geq 10 - \leq 20$	14807-96-6
Hexamethylene diisocyanate, oligomers	$\geq 5.0 - \leq 10$	28182-81-2
xylene	$\geq 5.0 - \leq 9.0$	1330-20-7
diron trioxide	$\geq 5.0 - \leq 10$	1309-37-1
Pyrrolo[3,4-c]pyrrole-1,4-dione, 2,5-dihydro-3,6-diphenyl-acetone	$\geq 1.0 - \leq 5.0$	54660-00-3
Aluminium powder (stabilized)	$\geq 1.0 - \leq 5.0$	67-64-1
n-butyl acetate	$\geq 1.0 - \leq 5.0$	7429-90-5
Isopropyl alcohol	$\geq 1.0 - \leq 5.0$	123-86-4
2-butoxyethanol	$\geq 0.10 - \leq 2.7$	67-63-0
carbon black, respirable powder	$\geq 0.10 - \leq 2.6$	111-76-2
heptan-2-one	$\geq 1.0 - \leq 5.0$	1333-86-4
pentane-2,4-dione	$\leq 1.4$	110-43-0
hexamethylene-di-isocyanate	$\leq 1.3$	123-54-6
crystalline silica, respirable powder (<10 microns)	<1.0	822-06-0
	<1.0	14808-60-7

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.

## Section 4. First aid measures

- 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** :  May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Skin contact** : Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
- Ingestion** :  No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

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

### Specific hazards arising from the chemical

: Extremely flammable aerosol. 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. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. Runoff to sewer may create fire or explosion hazard. This material is toxic to aquatic life. 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 dioxide  
carbon monoxide  
nitrogen 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. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. 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".

## Section 6. Accidental release measures

**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.

**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 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. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. 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. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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. Empty containers retain product residue and can be hazardous.

## 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. 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 away 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. Use appropriate containment to avoid environmental contamination.  
Precautions should be taken to minimize exposure to atmospheric humidity or water. CO<sub>2</sub> will be formed, which, in closed containers, could result in pressurization.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
4-chloro- $\alpha,\alpha,\alpha$ -trifluorotoluene	<b>IPEL (PPG).</b> TWA: 25 ppm
dimethyl ether	None.
titanium dioxide	<b>OSHA PEL (United States, 2/2013).</b> TWA: 15 mg/m <sup>3</sup> 8 hours. Form: Total dust <b>ACGIH TLV (United States, 3/2015).</b> TWA: 10 mg/m <sup>3</sup> 8 hours.
Talc , not containing asbestiform fibres	<b>ACGIH TLV (United States, 3/2015).</b> TWA: 2 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction <b>OSHA PEL Z3 (United States, 2/2013).</b> TWA: 20 mppcf 8 hours. Form: not containing asbestos
Hexamethylene diisocyanate, oligomers	<b>IPEL (PPG).</b> TWA: 0.5 mg/m <sup>3</sup> STEL: 1 mg/m <sup>3</sup>
xylene	<b>ACGIH TLV (United States, 3/2015).</b> STEL: 651 mg/m <sup>3</sup> 15 minutes. STEL: 150 ppm 15 minutes. TWA: 434 mg/m <sup>3</sup> 8 hours. TWA: 100 ppm 8 hours.
diiron trioxide	<b>OSHA PEL (United States, 2/2013).</b> TWA: 435 mg/m <sup>3</sup> 8 hours. TWA: 100 ppm 8 hours. <b>ACGIH TLV (United States, 3/2015).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction

## Section 8. Exposure controls/personal protection

Pyrrolo[3,4-c]pyrrole-1,4-dione, 2,5-dihydro-3,6-diphenyl-acetone	<p><b>OSHA PEL (United States, 2/2013).</b> TWA: 10 mg/m<sup>3</sup> 8 hours.</p> <p>None.</p> <p><b>ACGIH TLV (United States, 3/2015).</b> STEL: 500 ppm 15 minutes. TWA: 250 ppm 8 hours.</p> <p><b>OSHA PEL (United States, 2/2013).</b> TWA: 2400 mg/m<sup>3</sup> 8 hours. TWA: 1000 ppm 8 hours.</p> <p><b>ACGIH TLV (United States, 3/2015).</b> TWA: 1 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction</p> <p><b>OSHA PEL (United States, 2/2013).</b> TWA: 5 mg/m<sup>3</sup>, (as Al) 8 hours. Form: Respirable fraction Respirable fraction TWA: 15 mg/m<sup>3</sup>, (as Al) 8 hours. Form: Total dust</p> <p><b>ACGIH TLV (United States, 3/2015).</b> STEL: 200 ppm 15 minutes. TWA: 150 ppm 8 hours.</p> <p><b>OSHA PEL (United States, 2/2013).</b> TWA: 710 mg/m<sup>3</sup> 8 hours. TWA: 150 ppm 8 hours.</p> <p><b>ACGIH TLV (United States, 3/2015).</b> STEL: 400 ppm 15 minutes. TWA: 200 ppm 8 hours.</p> <p><b>OSHA PEL (United States, 2/2013).</b> TWA: 980 mg/m<sup>3</sup> 8 hours. TWA: 400 ppm 8 hours.</p> <p><b>ACGIH TLV (United States, 3/2015).</b> TWA: 20 ppm 8 hours.</p> <p><b>OSHA PEL (United States, 2/2013).</b> <b>Absorbed through skin.</b> TWA: 240 mg/m<sup>3</sup> 8 hours. TWA: 50 ppm 8 hours.</p> <p><b>ACGIH TLV (United States, 3/2015).</b> TWA: 3 mg/m<sup>3</sup> 8 hours. Form: Inhalable fraction</p> <p><b>OSHA PEL (United States, 2/2013).</b> TWA: 3.5 mg/m<sup>3</sup> 8 hours.</p> <p><b>ACGIH TLV (United States, 3/2015).</b> TWA: 233 mg/m<sup>3</sup> 8 hours. TWA: 50 ppm 8 hours.</p> <p><b>OSHA PEL (United States, 2/2013).</b> TWA: 465 mg/m<sup>3</sup> 8 hours. TWA: 100 ppm 8 hours.</p> <p><b>ACGIH TLV (United States, 3/2015).</b> <b>Absorbed through skin.</b> TWA: 25 ppm 8 hours.</p> <p><b>ACGIH TLV (United States, 3/2015).</b> TWA: 0.03 mg/m<sup>3</sup> 8 hours. TWA: 0.005 ppm 8 hours.</p>
aluminium powder (stabilised)	
n-butyl acetate	
Isopropyl alcohol	
2-butoxyethanol	
carbon black, respirable powder	
heptan-2-one	
pentane-2,4-dione	
hexamethylene-di-isocyanate	



**Section 8. Exposure controls/personal protection**

crystalline silica, respirable powder (<10 microns)

**OSHA PEL (United States, 2/2013).**

**Absorbed through skin.**

TWA: 5 mg/m<sup>3</sup>, (as CN) 8 hours.

**OSHA PEL Z3 (United States, 2/2013).**

TWA: 10 mg/m<sup>3</sup> / (%SiO<sub>2</sub>+2) 8 hours. Form:

Respirable

TWA: 250 mppcf / (%SiO<sub>2</sub>+5) 8 hours. Form:

Respirable

**ACGIH TLV (United States, 3/2015).**

TWA: 0.025 mg/m<sup>3</sup> 8 hours. Form:

Respirable fraction

**OSHA PEL Z3 (United States).**

TWA: 30 mg/m<sup>3</sup> Form: Total dust

**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. 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. 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. 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** : Chemical splash goggles.

**Skin protection**

## Section 8. Exposure controls/personal protection

<b>Hand protection</b>	: 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.
<b>Gloves</b>	: butyl rubber
<b>Body protection</b>	: 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.
<b>Other skin protection</b>	: 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.
<b>Respiratory protection</b>	: <input checked="" type="checkbox"/> 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.
<b>Restrictions on use</b>	: 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

<b>Physical state</b>	: Liquid.
<b>Color</b>	: <input checked="" type="checkbox"/> Various
<b>Odor</b>	: Not available.
<b>Odor threshold</b>	: Not available.
<b>pH</b>	: Not available.
<b>Melting point</b>	: Not available.
<b>Boiling point</b>	: <35°C (<95°F)
<b>Flash point</b>	: Closed cup: -8.33°C (17°F)
<b>Material supports combustion.</b>	: Yes.
<b>Auto-ignition temperature</b>	: Not available.
<b>Decomposition temperature</b>	: Not available.
<b>Flammability (solid, gas)</b>	: Not available.
<b>Lower and upper explosive (flammable) limits</b>	: Not available.
<b>Evaporation rate</b>	: Not available.
<b>Vapor pressure</b>	: Not available.
<b>Vapor density</b>	: Not available.
<b>Relative density</b>	: <input checked="" type="checkbox"/> 1.21
<b>Density ( lbs / gal )</b>	: <input checked="" type="checkbox"/> 10.1

## Section 9. Physical and chemical properties

<b>Solubility</b>	: Insoluble in the following materials: cold water.
<b>Partition coefficient: n-octanol/water</b>	: Not available.
<b>Viscosity</b>	: Kinematic (40°C (104°F)): <0.07 cm <sup>2</sup> /s (<7 cSt)
<b>Volatility</b>	: 48% (v/v), 47% (w/w)
<b>% Solid. (w/w)</b>	: 52.54

Physical property values shown in this section are calculated averages. For specific product information, contact your PPG Sales Representative.

### Aerosol product

<b>Type of aerosol</b>	: Spray
<b>Heat of combustion</b>	: 16.93 kJ/g

## Section 10. Stability and reactivity

<b>Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>Chemical stability</b>	: The product is stable.
<b>Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	: In a fire, hazardous decomposition products may be produced. Refer to protective measures listed in sections 7 and 8.
<b>Incompatible materials</b>	: Keep away from: oxidizing agents, strong alkalis, strong acids, amines, alcohols, water. Uncontrolled exothermic reactions occur with amines and alcohols.
<b>Hazardous decomposition products</b>	: 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

Product/ingredient name	Result	Species	Dose	Exposure
4-chloro- $\alpha,\alpha,\alpha$ -trifluorotoluene	LC50 Inhalation Vapor	Rat	33080 mg/m <sup>3</sup>	4 hours
	LD50 Dermal	Rabbit	>2.7 g/kg	-
	LD50 Oral	Rat	13 g/kg	-
dimethyl ether	LC50 Inhalation Gas.	Rat	164000 ppm	4 hours
	LC50 Inhalation Vapor	Rat	309 g/m <sup>3</sup>	4 hours
titanium dioxide	LD50 Oral	Rat	>11 g/kg	-
	LC50 Inhalation Dusts and mists	Rat	18500 mg/m <sup>3</sup>	1 hours
Hexamethylene diisocyanate, oligomers	LC50 Inhalation Dusts and mists	Rat	0.39 mg/l	4 hours
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat - Female	>2500 mg/kg	-

## Section 11. Toxicological information

xylene	LC50 Inhalation Gas.	Rat	6670 ppm	4 hours
	LC50 Inhalation Vapor	Rat	5000 ppm	4 hours
	LD50 Dermal	Rabbit	>1.7 g/kg	-
diiron trioxide	LD50 Oral	Rat	4.3 g/kg	-
	LD50 Oral	Rat	10 g/kg	-
	LC50 Inhalation Vapor	Rat	76000 mg/m <sup>3</sup>	4 hours
acetone	LD50 Dermal	Rabbit	20 g/kg	-
	LD50 Oral	Rat	1.8 g/kg	-
	LC50 Inhalation Vapor	Rat	>21.1 mg/l	4 hours
n-butyl acetate	LC50 Inhalation Vapor	Rat	2000 ppm	4 hours
	LD50 Dermal	Rabbit	>17600 mg/kg	-
	LD50 Oral	Rat	10.768 g/kg	-
Isopropyl alcohol	LC50 Inhalation Vapor	Rat	72600 mg/m <sup>3</sup>	4 hours
	LD50 Dermal	Rabbit	12800 mg/kg	-
	LD50 Oral	Rat	4.396 g/kg	-
2-butoxyethanol	LD50 Dermal	Rabbit	1060 mg/kg	-
	LD50 Oral	Rat	470 mg/kg	-
	LD50 Dermal	Rabbit	>3 g/kg	-
carbon black, respirable powder	LD50 Oral	Rat	>15400 mg/kg	-
	LC50 Inhalation Vapor	Rat	>16.7 mg/l	4 hours
	LD50 Dermal	Rabbit	10.206 g/kg	-
heptan-2-one	LD50 Oral	Rat	1.6 g/kg	-
	LC50 Inhalation Vapor	Rat	1225 ppm	4 hours
	LD50 Dermal	Rabbit	787.4 mg/kg	-
pentane-2,4-dione	LD50 Oral	Rat	55 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	124 mg/m <sup>3</sup>	4 hours
	LC50 Inhalation Vapor	Rat	151 mg/m <sup>3</sup>	4 hours
hexamethylene-di-isocyanate	LC50 Inhalation Vapor	Rat	22 ppm	4 hours
	LD50 Dermal	Rabbit	0.57 g/kg	-
	LD50 Oral	Rat	0.71 g/kg	-

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

**Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
xylene	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-

**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.

## Section 11. Toxicological information

### Classification

Product/ingredient name	OSHA	IARC	NTP
Titanium dioxide	-	2B	-
xylene	-	3	-
diron trioxide	-	3	-
Isopropyl alcohol	-	3	-
2-butoxyethanol	-	3	-
carbon black, respirable powder	-	2B	-
crystalline silica, respirable powder (<10 microns)	-	1	Known to be a human carcinogen.

#### 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)

Name	Category
4-chloro- $\alpha,\alpha,\alpha$ -trifluorotoluene	Category 3
Talc, not containing asbestiform fibres	Category 3
Hexamethylene diisocyanate, oligomers	Category 3
xylene	Category 3
Pyrrolo[3,4-c]pyrrole-1,4-dione, 2,5-dihydro-3,6-diphenyl-	Category 3
acetone	Category 3
n-butyl acetate	Category 3
Isopropyl alcohol	Category 3
hexamethylene-di-isocyanate	Category 3

### Specific target organ toxicity (repeated exposure)

Name	Category
xylene	Category 2
crystalline silica, respirable powder (<10 microns)	Category 1

### Target organs

: Contains material which causes damage to the following organs: mucous membranes, brain, , central nervous system (CNS), eye, lens or cornea.  
Contains material which may cause damage to the following organs: blood, kidneys, lungs, the nervous system, liver, spleen, lymphatic system, peripheral nervous system, gastrointestinal tract, cardiovascular system, upper respiratory tract, immune system, skin, bone marrow.

### Aspiration hazard

Name	Result
xylene	ASPIRATION HAZARD - Category 1

## Section 11. Toxicological information

### Information on the likely routes of exposure

#### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** :  May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Skin contact** : Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
- Ingestion** :  No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

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

## Section 11. Toxicological information

### 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** : May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**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

Route	ATE value
Oral	2442.5 mg/kg
Dermal	19674.7 mg/kg
Inhalation (gases)	180593.9 ppm
Inhalation (vapors)	149.4 mg/l
Inhalation (dusts and mists)	37.55 mg/l

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Titanium dioxide Hexamethylene diisocyanate, oligomers	Acute LC50 >100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 >1000 mg/l	Algae - scenedesmus subspicatus	72 hours
	Acute EC50 >100 mg/l	Daphnia - daphnia magna	48 hours
	Acute LC50 >100 mg/l	Fish - Danio rerio (zebra fish)	96 hours

### Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Hexamethylene diisocyanate, oligomers	-	-	Not readily
xylene	-	-	Readily
acetone	-	-	Readily
2-butoxyethanol	-	-	Readily

### Bioaccumulative potential

## Section 12. Ecological information

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Dimethyl ether	0.1	-	low
Hexamethylene diisocyanate, oligomers	-	3.2	low
xylene	3.16	7.4 to 18.5	low
acetone	-0.24	3	low
n-butyl acetate	1.78	-	low
Isopropyl alcohol	0.05	-	low
2-butoxyethanol	0.81	-	low
heptan-2-one	1.98	-	low
pentane-2,4-dione	0.4	-	low
hexamethylene-di-isocyanate	1.08	-	low

### 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. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

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

	DOT	IMDG	IATA
UN number	UN1950	UN1950	UN1950
UN proper shipping name	AEROSOLS	AEROSOLS	Aerosols, flammable
Transport hazard class (es)	2.1	2.1	2.1
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.
Product RQ (lbs)			



## 14. Transport information

<b>RQ substances</b>	☑350 (xylene)	Not applicable. Not applicable.	Not applicable. Not applicable.
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### Additional information

- DOT** : Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.
- 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.

#### United States - TSCA 5(a)2 - Proposed significant new use rules:

pentane-2,4-dione

Listed

### SARA 302/304

**SARA 304 RQ** : Not applicable.

### Composition/information on ingredients

No products were found.

### SARA 311/312

**Classification** : Fire hazard  
Sudden release of pressure  
Immediate (acute) health hazard  
Delayed (chronic) health hazard

### Composition/information on ingredients

Name	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
☑chloro- $\alpha,\alpha,\alpha$ -trifluorotoluene	Yes.	No.	No.	Yes.	No.
dimethyl ether	Yes.	Yes.	No.	Yes.	No.
titanium dioxide	No.	No.	No.	No.	Yes.
Talc , not containing asbestiform fibres	No.	No.	No.	Yes.	No.
Hexamethylene diisocyanate, oligomers	Yes.	No.	No.	Yes.	No.
xylene	Yes.	No.	No.	Yes.	Yes.
Pyrrolo[3,4-c]pyrrole-1,4-dione, 2,5-dihydro-3,6-diphenyl-	Yes.	No.	No.	Yes.	No.
acetone	Yes.	No.	No.	Yes.	No.
aluminium powder (stabilised)	Yes.	No.	No.	No.	No.
n-butyl acetate	Yes.	No.	No.	Yes.	No.

## Section 15. Regulatory information

Isopropyl alcohol	Yes.	No.	No.	Yes.	No.
2-butoxyethanol	Yes.	No.	No.	Yes.	No.
carbon black, respirable powder	Yes.	No.	No.	No.	Yes.
heptan-2-one	Yes.	No.	No.	Yes.	No.
pentane-2,4-dione	Yes.	No.	No.	Yes.	No.
hexamethylene-di-isocyanate	No.	No.	No.	Yes.	No.
crystalline silica, respirable powder (<10 microns)	No.	No.	No.	No.	Yes.

### SARA 313

Supplier notification	Chemical name	CAS number	Concentration
	Xylene	1330-20-7	5 - 10
	Aluminium powder (stabilized)	7429-90-5	1 - 5
	Isopropyl alcohol	67-63-0	1 - 5
	2-butoxyethanol	111-76-2	1 - 5

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 : 3 \* Flammability : 4 Physical hazards : 1

(\* ) - 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 : 3 Flammability : 4 Instability : 1

Date of previous issue : 4/25/2016

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  
 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.

## **Section 16. Other information**

### **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.*