

SAFETY DATA SHEET



Date of issue/Date of revision 18 June 2023

Version 21

Section 1. Identification

Product name : PSX ONE BLACK
Product code : PXONE9/01
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, 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)
SETIQ Interior de la República: 800-00-214-00 (México)
SETIQ Ciudad de México: (55) 5559-1588 (México)

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 2
ACUTE TOXICITY (dermal) - Category 4
ACUTE TOXICITY (inhalation) - Category 2
SKIN CORROSION - Category 1B
SERIOUS EYE DAMAGE - Category 1
RESPIRATORY SENSITIZATION - Category 1
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION - Category 1B
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 61.5% (oral), 64.8% (dermal), 66.8% (inhalation)

GHS label elements

Section 2. Hazards identification

Hazard pictograms :**Signal word** :

: Danger

Hazard statements :

: Highly flammable liquid and vapor.
Harmful in contact with skin.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
Fatal if inhaled.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Suspected of causing cancer.
May damage fertility or the unborn child.
May cause damage to organs through prolonged or repeated exposure. (hearing organs)

Precautionary statements**Prevention** :

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Wear respiratory protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response :

: IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. If experiencing respiratory symptoms: Call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse. IF ON SKIN: Call a POISON CENTER or doctor if you feel unwell. Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

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 :

: Moisture-sensitive material. Do not taste or swallow. Trimethoxysilanes are capable of forming methanol if hydrolyzed or ingested. If swallowed, methanol may be harmful or fatal or cause blindness. 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. 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

Section 2. Hazards identification

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. This product either contains formaldehyde or is capable of releasing formaldehyde above 0.5 ppm under certain conditions. Formaldehyde is a known cancer hazard, a skin sensitizer and a respiratory sensitizer. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.

Hazards not otherwise classified

: Causes digestive tract burns. Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Product name

: PSX ONE BLACK

Ingredient name	%	CAS number
Xylene	≥10 - ≤16	1330-20-7
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	≥1.0 - ≤5.0	2530-83-8
3-(trimethoxysilyl)propyl isocyanate	≥1.0 - ≤4.9	15396-00-6
Proprietary silane	≥1.0 - ≤4.9	Proprietary
ethylbenzene	≥1.0 - ≤4.4	100-41-4
trimethoxyvinylsilane	≥1.0 - ≤4.7	2768-02-7
triethoxyoctylsilane	≥1.0 - ≤5.0	2943-75-1
2-ethylaminoethanol	≥1.0 - ≤3.0	110-73-6
carbon black	≥1.0 - ≤5.0	1333-86-4
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	≥0.10 - ≤2.3	41556-26-7
trimethoxy(methyl)silane	≥1.0 - ≤5.0	1185-55-3
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	<1.0	82919-37-7
N-methyl-2-pyrrolidone	<1.0	872-50-4
organofunctional silane	<1.0	Not available.
organoalkoxysilane	<1.0	Not available.
dibutylbis(pentane-2,4-dionato-O,O')tin	<1.0	22673-19-4
dibutyltin dilaurate	<1.0	77-58-7

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

: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.

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** : Causes serious eye damage.
- Inhalation** : Fatal if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Skin contact** : Causes severe burns. Harmful in contact with skin. Defatting to the skin. May cause an allergic skin reaction.
- Ingestion** : Corrosive to the digestive tract. Causes burns.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : Adverse symptoms may include the following:
wheezing and breathing difficulties
asthma
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
dryness
cracking
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
stomach pains
reduced fetal weight
increase in fetal deaths
skeletal malformations

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.

Section 4. First aid measures

- 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** : Highly 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.

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

- 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. Do not breathe 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).

Section 6. Accidental release measures

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. 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. 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 above the following temperature: 50°C (122°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. 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

Ingredient name	Exposure limits
xylene	OSHA PEL (United States, 5/2018). [Xylenes (o-, m-, p-isomers)] TWA: 435 mg/m ³ 8 hours. TWA: 100 ppm 8 hours. ACGIH TLV (United States, 1/2022). [p-xylene and mixtures containing p-xylene] Ototoxicant. TWA: 20 ppm 8 hours.
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	None.
3-(trimethoxysilyl)propyl isocyanate	None.
Proprietary silane	None.
ethylbenzene	ACGIH TLV (United States, 1/2022). Ototoxicant. TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 435 mg/m ³ 8 hours. TWA: 100 ppm 8 hours.
trimethoxyvinylsilane	None.
triethoxyoctylsilane	None.
2-ethylaminoethanol	None.
carbon black	ACGIH TLV (United States, 1/2022). TWA: 3 mg/m ³ 8 hours. Form: Inhalable fraction OSHA PEL (United States, 5/2018). TWA: 3.5 mg/m ³ 8 hours.
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	None.
trimethoxy(methyl)silane	None.
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	None.
N-methyl-2-pyrrolidone	IPEL (-). Absorbed through skin.

Section 8. Exposure controls/personal protection

organofunctional silane
 organoalkoxysilane
 dibutylbis(pentane-2,4-dionato-O,O')tin

dibutyltin dilaurate

TWA: 10 ppm
 STEL: 20 ppm
 None.
 None.
ACGIH TLV (United States). Absorbed through skin.
 STEL: 0.2 mg/m³
OSHA PEL (United States).
 TWA: 0.1 mg/m³, (as Sn)
 TWA: 0.1 mg/m³, (as Sn) Form: Total dust
ACGIH TLV (United States, 1/2022). [Tin, organic compounds as Sn] Absorbed through skin.
 TWA: 0.1 mg/m³, (as Sn) 8 hours.
 STEL: 0.2 mg/m³, (as Sn) 15 minutes.
OSHA PEL (United States, 5/2018). [Tin, organic compounds (as Sn)]
 TWA: 0.1 mg/m³, (as Sn) 8 hours.
ACGIH TLV (United States, 1/2022). [Tin, organic compounds as Sn] Absorbed through skin.
 STEL: 0.2 mg/m³, (as Sn) 15 minutes.
 TWA: 0.1 mg/m³, (as Sn) 8 hours.
OSHA PEL (United States, 5/2018). [Tin, organic compounds (as Sn)]
 TWA: 0.1 mg/m³, (as Sn) 8 hours.
OSHA PEL (United States).
 TWA: 0.1 mg/m³, (as Sn)

Key to abbreviations

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

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : 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. 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 and face shield.
- 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** : nitrile neoprene
- 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** : Use an air-fed respirator unless a site-specific assessment determines that an air-fed respirator is not necessary, in which case the results of the risk assessment should be utilized to determine whether respiratory protection is necessary and what type of protection is appropriate. 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.
- The respiratory protection shall be in accordance to 29 CFR 1910.134.
- 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** : Not available.
- Odor** : Characteristic.
- Odor threshold** : Not available.
- pH** : Not applicable.
- Melting point** : Not available.
- Boiling point** : >37.78°C (>100°F)
- Flash point** : Closed cup: 18.89°C (66°F)
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.

Section 9. Physical and chemical properties

Flammability : Not available.

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

Evaporation rate : 0.78 (butyl acetate = 1)

Vapor pressure : 3.4 kPa (25.6 mm Hg)

Vapor density : Not available.

Relative density : 1.06

Density (lbs / gal) : 8.85

Media	Result
cold water	Not soluble

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

Viscosity : Kinematic (40°C (104°F)): >21 mm²/s (>21 cSt)

Volatility : 19% (v/v), 14.344% (w/w)

% Solid. (w/w) : 85.656

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 : Depending on conditions, decomposition products may include the following materials:
Cyanate and isocyanate. carbon oxides nitrogen oxides Formaldehyde. hydrogen cyanide metal oxide/oxides

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
xylene	LD50 Dermal	Rabbit	1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
[3-(2,3-epoxypropoxy)propyl] trimethoxysilane	LC50 Inhalation Dusts and mists	Rat	>5300 mg/m ³	4 hours
	LD50 Dermal	Rabbit	4.3 g/kg	-
	LD50 Oral	Rat	7.01 g/kg	-
3-(trimethoxysilyl)propyl isocyanate	LC50 Inhalation Gas.	Rat	15 ppm	4 hours
	LC50 Inhalation Vapor	Rat	128 mg/m ³	4 hours
	LD50 Dermal	Rabbit	1.19 g/kg	-
	LD50 Oral	Rat	0.878 g/kg	-
Proprietary silane	LC50 Inhalation Dusts and mists	Rat	>7.35 mg/l	4 hours
	LD50 Dermal	Rabbit	4 g/kg	-
	LD50 Oral	Rat	1.57 g/kg	-
ethylbenzene	LC50 Inhalation Vapor	Rat	17.8 mg/l	4 hours
	LD50 Dermal	Rabbit	17.8 g/kg	-
	LD50 Oral	Rat	3.5 g/kg	-
trimethoxyvinylsilane	LC50 Inhalation Vapor	Rat	16800 mg/m ³	4 hours
	LD50 Dermal	Rabbit	3158 mg/kg	-
	LD50 Oral	Rat - Male	6899 mg/kg	-
2-ethylaminoethanol	LD50 Dermal	Rabbit	0.36 g/kg	-
	LD50 Oral	Rat	1 g/kg	-
carbon black	LD50 Oral	Rat	>10 g/kg	-
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	LD50 Oral	Rat	3.125 g/kg	-
trimethoxy(methyl)silane	LC50 Inhalation Vapor	Rat	>42.1 mg/l	4 hours
	LD50 Dermal	Rabbit	>9500 mg/kg	-
	LD50 Oral	Rat	11685 mg/kg	-
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	LD50 Oral	Rat	3.125 g/kg	-
N-methyl-2-pyrrolidone	LC50 Inhalation Dusts and mists	Rat	>5100 mg/m ³	4 hours
	LD50 Dermal	Rabbit	8 g/kg	-
	LD50 Oral	Rat	3.914 g/kg	-
organofunctional silane	LD50 Dermal	Rabbit	16.32 mg/kg	-
	LD50 Oral	Rat	8400 mg/kg	-
dibutylbis(pentane-2,4-dionato-O,O')tin	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	1864 mg/kg	-
dibutyltin dilaurate	LD50 Oral	Rat	2071 mg/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	-
[3-(2,3-epoxypropoxy)propyl] trimethoxysilane	Eyes - Cornea opacity	Rabbit	11.8	1 minutes	24 hours

Conclusion/Summary

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

Section 11. Toxicological information

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

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

Sensitization

Product/ingredient name	Route of exposure	Species	Result
Proprietary silane trimethoxy(methyl)silane	skin skin	Guinea pig Guinea pig	Sensitizing Sensitizing

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

Product/ingredient name	OSHA	IARC	NTP
xylene	-	3	-
ethylbenzene	-	2B	-
carbon black	-	2B	-

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	Route of exposure	Target organs
xylene	Category 3	-	Respiratory tract irritation
N-methyl-2-pyrrolidone	Category 3	-	Respiratory tract irritation
dibutylbis(pentane-2,4-dionato-O,O')tin	Category 1	-	-
dibutyltin dilaurate	Category 1	-	thymus

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
ethylbenzene	Category 2	-	hearing organs
N-methyl-2-pyrrolidone	Category 2	-	-
dibutylbis(pentane-2,4-dionato-O,O')tin	Category 1	-	immune system
dibutyltin dilaurate	Category 1	oral	immune system

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

Aspiration hazard

Name	Result
xylene	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Fatal if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Skin contact** : Causes severe burns. Harmful in contact with skin. Defatting to the skin. May cause an allergic skin reaction.
- Ingestion** : Corrosive to the digestive tract. Causes burns.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : Adverse symptoms may include the following:
wheezing and breathing difficulties
asthma
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
dryness
cracking
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations

Section 11. Toxicological information

Ingestion : Adverse symptoms may include the following:
stomach pains
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. Trimethoxysilanes are capable of forming methanol if hydrolyzed or ingested. If swallowed, methanol may be harmful or fatal or cause blindness. 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 either contains formaldehyde or is capable of releasing formaldehyde above 0.5 ppm under certain conditions. Formaldehyde is a known cancer hazard, a skin sensitizer and a respiratory sensitizer. 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 : 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 : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : May damage fertility or the unborn child.

Numerical measures of toxicity

Acute toxicity estimates

Section 11. Toxicological information

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
PSX ONE BLACK	3108.6	1986.6	122.0	1.0	3.2
xylene	4300	1700	N/A	11	1.5
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	7010	4300	N/A	N/A	N/A
3-(trimethoxysilyl)propyl isocyanate	878	1190	15	0.128	N/A
Proprietary silane	1570	4000	N/A	N/A	N/A
ethylbenzene	3500	17800	N/A	17.8	1.5
trimethoxyvinylsilane	6899	3158	N/A	16.8	1.5
2-ethylaminoethanol	1000	360	N/A	N/A	N/A
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	3125	N/A	N/A	N/A	N/A
trimethoxy(methyl)silane	11685	N/A	N/A	N/A	N/A
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	3125	N/A	N/A	N/A	N/A
N-methyl-2-pyrrolidone	3914	8000	N/A	N/A	N/A
organofunctional silane	8400	16.32	N/A	0.05	N/A
organoalkoxysilane	500	1100	N/A	0.05	N/A
dibutylbis(pentane-2,4-dionato-O,O')tin	1864	2500	N/A	N/A	N/A
dibutyltin dilaurate	2071	N/A	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
[3-(2,3-epoxypropoxy)propyl] trimethoxysilane	Acute LC50 324 mg/l	Daphnia	48 hours
Proprietary silane	Acute LC50 >934 mg/l	Fish	96 hours
ethylbenzene	Acute EC50 1.8 mg/l Fresh water Chronic NOEC 1 mg/l Fresh water	Daphnia Daphnia - <i>Ceriodaphnia dubia</i>	48 hours -
trimethoxy(methyl)silane	Acute LC50 >110 mg/l	Fish	96 hours
dibutyltin dilaurate	EC50 0.463 mg/l	Daphnia	48 hours

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
ethylbenzene	-	79 % - Readily - 10 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
xylene	-	-	Readily
ethylbenzene	-	-	Readily
N-methyl-2-pyrrolidone	-	-	Readily

Bioaccumulative potential

Section 12. Ecological information

Product/ingredient name	LogP _{ow}	BCF	Potential
xylene	3.12	7.4 to 18.5	Low
Proprietary silane	1.7	3.4	Low
ethylbenzene	3.6	79.43	Low
N-methyl-2-pyrrolidone	-0.46	3.16	Low
dibutyltin dilaurate	4.44	-	High

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. 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

	DOT	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class (es)	3	3	3
Packing group	II	II	II
Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.
Product RQ (lbs)	947.43	Not applicable.	Not applicable.
RQ substances	(xylene, ethylbenzene)	Not applicable.	Not applicable.

14. Transport information

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.


Transport in bulk according to IMO instruments : Not applicable.

Section 15. Regulatory information

United States

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

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

-methyl-2-pyrrolidone

Listed

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : FLAMMABLE LIQUIDS - Category 2
ACUTE TOXICITY (dermal) - Category 4
ACUTE TOXICITY (inhalation) - Category 2
SKIN CORROSION - Category 1B
SERIOUS EYE DAMAGE - Category 1
RESPIRATORY SENSITIZATION - Category 1
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION - Category 1B
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
HNOC - Corrosive to digestive tract
HNOC - Defatting irritant

Composition/information on ingredients

Section 15. Regulatory information

Name	%	Classification
xylene	≥10 - ≤16	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 ASPIRATION HAZARD - Category 1
[3-(2,3-epoxypropoxy)propyl] trimethoxysilane	≥1.0 - ≤5.0	SERIOUS EYE DAMAGE - Category 1
3-(trimethoxysilyl)propyl isocyanate	≥1.0 - ≤4.9	ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 1 SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1 RESPIRATORY SENSITIZATION - Category 1A SKIN SENSITIZATION - Category 1A HNOC - Corrosive to digestive tract
Proprietary silane	Proprietary	FLAMMABLE LIQUIDS - Category 4 ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1B HNOC - Corrosive to digestive tract
ethylbenzene	≥1.0 - ≤4.4	FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (inhalation) - Category 4 CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 ASPIRATION HAZARD - Category 1 HNOC - Defatting irritant
trimethoxyvinylsilane	≥1.0 - ≤4.7	FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (inhalation) - Category 4 SKIN SENSITIZATION - Category 1B
triethoxyoctylsilane	≥1.0 - ≤5.0	SKIN IRRITATION - Category 2
2-ethylaminoethanol	≥1.0 - ≤3.0	ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 3 SKIN CORROSION - Category 1 SERIOUS EYE DAMAGE - Category 1
carbon black	≥1.0 - ≤5.0	COMBUSTIBLE DUSTS CARCINOGENICITY - Category 2
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	≥0.10 - ≤2.3	SKIN SENSITIZATION - Category 1B TOXIC TO REPRODUCTION - Category 2
trimethoxy(methyl)silane	≥1.0 - ≤5.0	FLAMMABLE LIQUIDS - Category 2 SKIN SENSITIZATION - Category 1B
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	<1.0	SKIN SENSITIZATION - Category 1B TOXIC TO REPRODUCTION - Category 2
N-methyl-2-pyrrolidone	<1.0	SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A TOXIC TO REPRODUCTION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)

Section 15. Regulatory information

organofunctional silane	<1.0	(Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 HNOC - Defatting irritant ACUTE TOXICITY (dermal) - Category 1 ACUTE TOXICITY (inhalation) - Category 1 SKIN CORROSION - Category 1A SERIOUS EYE DAMAGE - Category 1 RESPIRATORY SENSITIZATION - Category 1A SKIN SENSITIZATION - Category 1B
organoalkoxysilane	<1.0	ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 1 SKIN CORROSION - Category 1A SERIOUS EYE DAMAGE - Category 1 RESPIRATORY SENSITIZATION - Category 1A SKIN SENSITIZATION - Category 1B
dibutylbis(pentane-2,4-dionato-O, O')tin	<1.0	ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION - Category 1C SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1B GERM CELL MUTAGENICITY - Category 2 TOXIC TO REPRODUCTION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
dibutyltin dilaurate	<1.0	SKIN CORROSION - Category 1C SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1 GERM CELL MUTAGENICITY - Category 2 TOXIC TO REPRODUCTION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

SARA 313

Supplier notification	Chemical name	CAS number	Concentration
	xylene	1330-20-7	7 - 13
	ethylbenzene	100-41-4	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:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

Section 16. Other information

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

Health : 4 * Flammability : 3 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 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 : 4 Flammability : 3 Instability : 1

Date of previous issue : 3/3/2022

Organization that prepared the SDS : 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)
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.