

# SAFETY DATA SHEET



Date of issue/Date of revision 6 March 2024

Version 2

## Section 1. Identification

**Product name** : PR-2936 Part A  
**Product code** : PR-2936 Part A  
**Other means of identification** : Not available.  
**Product type** : Solid.

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

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

**Manufacturer** : PPG Aerospace PRC-DeSoto  
12780 San Fernando Road  
Sylmar, CA 91342  
Phone: 818 362 6711

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

## 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 (oral) - Category 4  
SKIN IRRITATION - Category 2  
EYE IRRITATION - Category 2A  
SKIN SENSITIZATION - Category 1  
GERM CELL MUTAGENICITY - Category 2  
CARCINOGENICITY - Category 1A  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2  
☒ Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 45.8% (oral), 68% (dermal), 76.8% (inhalation)

### GHS label elements

**Hazard pictograms** :



## Section 2. Hazards identification

**Signal word** : Danger

**Hazard statements** : Harmful if swallowed.  
Causes skin irritation.  
May cause an allergic skin reaction.  
Causes serious eye irritation.  
Suspected of causing genetic defects.  
May cause cancer.  
May cause damage to organs through prolonged or repeated exposure. (gastrointestinal tract, reproductive organs, stomach)

### 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. Do not breathe dust. Do not eat, drink or smoke when using this product. 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 SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth. Take off contaminated clothing and wash it before reuse. Wash contaminated clothing before reuse. IF ON SKIN: 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. If eye irritation persists: Get medical advice or attention.

**Storage** : Store locked up.

**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. Trimethoxysilanes are capable of forming methanol if hydrolyzed or ingested. If swallowed, methanol may be harmful or fatal or cause blindness. 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. Emits toxic fumes when heated.

**Hazards not otherwise classified** : None known.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

**Product name** : PR-2936 Part A

## Section 3. Composition/information on ingredients

Ingredient name	%	CAS number
Silica, vitreous	≥10 - ≤20	60676-86-0
Epoxy resin (MW ≤ 700)	≥10 - ≤20	25068-38-6
p-(2,3-epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline	≥10 - ≤20	5026-74-4
Mica-group minerals	≥5.0 - ≤10	12001-26-2
Carbon fibers, polyacrylonitrile-based	≥5.0 - ≤10	308063-67-4
4,4'-methylenebis[N,N-bis(2,3-epoxypropyl)aniline]	≥5.0 - ≤10	28768-32-3
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	≥1.0 - <3.0	2530-83-8
titanium dioxide	≤1.0	13463-67-7
crystalline silica, respirable powder (<10 microns)	<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.
- 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** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : Harmful if swallowed.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness

## Section 4. First aid measures

**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** : 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  
nitrogen oxides  
halogenated compounds  
metal oxide/oxides  
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.

- 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. 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). Water polluting material. May be harmful to the environment if released in large quantities.

### Methods and materials for containment and cleaning up

- Small spill** : Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. 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). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. 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 release to the environment. 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. 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.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Silica, vitreous Epoxy resin (MW ≤ 700) p-(2,3-epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline Mica-group minerals	None. None. None. <b>ACGIH TLV (United States, 1/2023).</b> TWA: 0.1 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction
Carbon fibers, polyacrylonitrile-based	<b>OSHA PEL Z3 (United States, 6/2016).</b> TWA: 20 mppcf 8 hours. <b>ACGIH TLV (United States).</b> TWA: 3 mg/m <sup>3</sup> Form: Respirable dust TWA: 10 mg/m <sup>3</sup> Form: Total dust
4,4'-methylenebis[N,N-bis(2,3-epoxypropyl)aniline] [3-(2,3-epoxypropoxy)propyl]trimethoxysilane titanium dioxide	None. None. <b>OSHA PEL (United States, 5/2018).</b> TWA: 15 mg/m <sup>3</sup> 8 hours. Form: Total dust <b>ACGIH TLV (United States, 1/2023).</b> TWA: 2.5 mg/m <sup>3</sup> 8 hours. Form: respirable fraction, finescale particles
crystalline silica, respirable powder (<10 microns)	<b>ACGIH TLV (United States, 1/2023). [Silica, crystalline]</b> TWA: 0.025 mg/m <sup>3</sup> 8 hours. Form: Respirable <b>OSHA PEL Z3 (United States, 6/2016).</b> 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 <b>OSHA PEL (United States, 5/2018). [Silica, crystalline]</b> TWA: 50 µg/m <sup>3</sup> 8 hours. Form: Respirable 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** : 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.

## Section 8. Exposure controls/personal protection

- 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. 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**
- 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** : 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.  
The respiratory protection shall be in accordance to 29 CFR 1910.134.

## Section 9. Physical and chemical properties

### Appearance

- Physical state** : Solid.
- Color** : Gray.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not applicable.
- Melting point** : Not available.
- Boiling point** : Not available.
- Flash point** : Closed cup: 200°C (392°F)

## Section 9. Physical and chemical properties

**Auto-ignition temperature** : Not applicable.

**Decomposition temperature** : Not available.

**Flammability** : Not available.

**Lower and upper explosive (flammable) limits** : Not applicable.

**Evaporation rate** : Not available.

**Vapor pressure** : Not available.

**Vapor density** : Not applicable.

**Relative density** : 1.61

**Density ( lbs / gal )** : 13.44

**Solubility(ies)** :

Media	Result
cold water	Partially soluble

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

**Viscosity** : Kinematic (40°C (104°F)): Not applicable.

**VOC** : 0

**% 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** : 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** : Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides halogenated compounds Formaldehyde. metal oxide/oxides



## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Epoxy resin (MW ≤ 700)	LD50 Dermal	Rabbit	>2 g/kg	-
	LD50 Oral	Rat	>2 g/kg	-
[3-(2,3-epoxypropoxy)propyl] trimethoxysilane	LC50 Inhalation Dusts and mists	Rat	>5.3 mg/l	4 hours
titanium dioxide	LD50 Oral	Rat	7.01 g/kg	-
	LC50 Inhalation Dusts and mists	Rat	>6.82 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-

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

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Epoxy resin (MW ≤ 700)	Eyes - Mild irritant	Rabbit	-	-	-
	Skin - Mild irritant	Rabbit	-	-	-

#### 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

Product/ingredient name	Route of exposure	Species	Result
Epoxy resin (MW ≤ 700)	skin	Mouse	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
Silica, vitreous	-	3	-
titanium dioxide	-	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: -

## Section 11. Toxicological information

### 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)

Name	Category	Route of exposure	Target organs
p-(2,3-epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline	Category 2	-	gastrointestinal tract, reproductive organs, stomach
crystalline silica, respirable powder (<10 microns)	Category 1	inhalation	-

**Target organs** :  Contains material which may cause damage to the following organs: kidneys, lungs, the reproductive system, gastrointestinal tract, upper respiratory tract, immune system, skin, eyes, stomach.

### Aspiration hazard

Not available.

## Information on the likely routes of exposure

### Potential acute health effects

**Eye contact** : Causes serious eye irritation.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : Causes skin irritation. May cause an allergic skin reaction.  
**Ingestion** : Harmful if swallowed.

### Over-exposure signs/symptoms

**Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness  
**Inhalation** : No specific data.  
**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

**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. 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. 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. 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

## Section 11. Toxicological information

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. 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** : Suspected of causing genetic defects.

**Reproductive toxicity** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
PR-2936 Part A	1350.8	4193.2	N/A	N/A	N/A
Epoxy resin (MW ≤ 700)	2500	2500	N/A	N/A	N/A
p-(2,3-epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline	500	N/A	N/A	N/A	N/A
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	7010	N/A	N/A	N/A	N/A

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Epoxy resin (MW ≤ 700)	Acute LC50 1.8 mg/l Chronic NOEC 0.3 mg/l	Daphnia Daphnia	48 hours 21 days
p-(2,3-epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline	Acute EC50 7 mg/l Fresh water	Algae	72 hours
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	Acute EC50 18 mg/l Fresh water Acute EC50 255 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> Algae	48 hours 72 hours
titanium dioxide	Acute EC50 473 mg/l Acute LC50 55 mg/l Acute LC50 >100 mg/l Fresh water	Daphnia Fish Daphnia - <i>Daphnia magna</i>	48 hours 96 hours 48 hours

### Persistence and degradability

## Section 12. Ecological information

Product/ingredient name	Test	Result	Dose	Inoculum
Epoxy resin (MW ≤ 700) [3-(2,3-epoxypropoxy)propyl] trimethoxysilane	OECD 301F -	5 % - 28 days 37 % - Not readily - 28 days	- -	- -
Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability	
Epoxy resin (MW ≤ 700) p-(2,3-epoxypropoxy)-N,N-bis (2,3-epoxypropyl)aniline [3-(2,3-epoxypropoxy)propyl] trimethoxysilane	- - -	- - -	Not readily Not readily Not readily	

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Epoxy resin (MW ≤ 700) 4,4'-methylenebis[N,N-bis (2,3-epoxypropyl)aniline]	3 2.12	31 -	Low 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. 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

<b>Product code</b> PR-2936 Part A	<b>Date of issue</b> 6 March 2024	<b>Version</b> 2
<b>Product name</b> PR-2936 Part A		

## 14. Transport information

	DOT	IMDG	IATA
<b>UN number</b>	UN3077	UN3077	UN3077
<b>UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (p-(2,3-epoxypropoxy)-N,N-bis (2,3-epoxypropyl)aniline, 4,4'-methylenebis[N,N-bis (2,3-epoxypropyl)aniline])	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Epoxy resin (MW ≤ 700), p-(2,3-epoxypropoxy)-N,N-bis (2,3-epoxypropyl)aniline)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Epoxy resin (MW ≤ 700), p-(2,3-epoxypropoxy)-N,N-bis (2,3-epoxypropyl)aniline)
<b>Transport hazard class (es)</b>	9	9	9
<b>Packing group</b>	III	III	III
<b>Environmental hazards</b>	Yes.	Yes.	Yes.
<b>Marine pollutant substances</b>	☑ p-(2,3-epoxypropoxy)-N,N-bis (2,3-epoxypropyl)aniline)	☑ Epoxy resin (MW ≤ 700))	Not applicable.

### Additional information

- DOT** : Non-bulk packages of this product are not regulated as hazardous materials unless transported by inland waterway. This product is not regulated as a hazardous material when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of §§ 173.24 and 173.24a.
- IMDG** : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.
- IATA** : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

**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.

### SARA 302/304

**SARA 304 RQ** : Not applicable.

### Composition/information on ingredients

No products were found.

### SARA 311/312

## Section 15. Regulatory information

**Classification** : ACUTE TOXICITY (oral) - Category 4  
 SKIN IRRITATION - Category 2  
 EYE IRRITATION - Category 2A  
 SKIN SENSITIZATION - Category 1  
 GERM CELL MUTAGENICITY - Category 2  
 CARCINOGENICITY - Category 1A  
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

### Composition/information on ingredients

Name	%	Classification
Silica, vitreous	≥10 - ≤20	EYE IRRITATION - Category 2A
Epoxy resin (MW ≤ 700)	≥10 - ≤20	SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1B
p-(2,3-epoxypropoxy)-N,N-bis (2,3-epoxypropyl)aniline	≥10 - ≤20	ACUTE TOXICITY (oral) - Category 4 SKIN SENSITIZATION - Category 1B GERM CELL MUTAGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
4,4'-methylenebis[N,N-bis (2,3-epoxypropyl)aniline]	≥5.0 - ≤10	SKIN SENSITIZATION - Category 1B GERM CELL MUTAGENICITY - Category 2
[3-(2,3-epoxypropoxy)propyl] trimethoxysilane	≥1.0 - <3.0	SERIOUS EYE DAMAGE - Category 1
titanium dioxide	≤1.0	CARCINOGENICITY - Category 2
crystalline silica, respirable powder (<10 microns)	<1.0	CARCINOGENICITY - Category 1A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

### 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** :  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** : 7/12/2023

**Organization that prepared the SDS** : 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  
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.*

# SAFETY DATA SHEET



Date of issue/Date of revision 27 November 2024

Version 5

## Section 1. Identification

**Product name** : PR-2936 Part B  
**Product code** : PR-2936 Part B  
**Other means of identification** : Not available.  
**Product type** : Solid.

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

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

**Manufacturer** : PPG Aerospace PRC-DeSoto  
12780 San Fernando Road  
Sylmar, CA 91342  
Phone: 818 362 6711

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

## 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 (oral) - Category 4  
ACUTE TOXICITY (dermal) - Category 3  
SKIN CORROSION - Category 1  
SERIOUS EYE DAMAGE - Category 1  
SKIN SENSITIZATION - Category 1  
CARCINOGENICITY - Category 2  
TOXIC TO REPRODUCTION - Category 2  
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 12.8% (oral), 30.9% (dermal), 95.9% (inhalation)

### GHS label elements

**Hazard pictograms** :



**Signal word** : Danger



Section 2. Hazards identification

Hazard statements	<ul style="list-style-type: none"><li>Harmful if swallowed.</li><li>Toxic in contact with skin.</li><li>Causes severe skin burns and eye damage.</li><li>May cause an allergic skin reaction.</li><li>Suspected of causing cancer.</li><li>Suspected of damaging fertility or the unborn child.</li></ul>
<u>Precautionary statements</u>	
Prevention	<ul style="list-style-type: none"><li>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. Avoid breathing dust. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.</li></ul>
Response	<ul style="list-style-type: none"><li>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 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. If skin irritation or rash occurs: Get medical advice or attention. Wash contaminated clothing before reuse. 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.</li></ul>
Storage	<ul style="list-style-type: none"><li>Store locked up.</li></ul>
Disposal	<ul style="list-style-type: none"><li>Dispose of contents and container in accordance with all local, regional, national and international regulations.</li></ul>
Supplemental label elements	<ul style="list-style-type: none"><li>Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.</li></ul>
Hazards not otherwise classified	<ul style="list-style-type: none"><li>Prolonged or repeated contact may dry skin and cause irritation.</li></ul>

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Product name	: PR-2936 Part B

Ingredient name	%	CAS number
3,6,9-triazaundecamethylenediamine	≥20 - ≤50	112-57-2
N,N'-bis(3-aminopropyl)ethylenediamine	≥10 - ≤20	10563-26-5
1,2-Ethanediamine, N1-(2-aminoethyl)-, reaction products with glycidyl p-tolyl ether	≥10 - ≤20	68411-70-1
2-Propenenitrile, reaction products with ethylenediamine, hydrogenated, N-benzyl derivs.	≥10 - ≤20	1010424-07-3
2,4,6-tris(dimethylaminomethyl)phenol	≥5.0 - ≤10	90-72-2
reaction products of benzaldehyde diethylenetriamine and triethylenetetramine, hydrogenated	≥5.0 - ≤10	1219458-07-7
N-(2-aminoethyl)-1,3-propanediamine	≥1.0 - ≤3.7	13531-52-7
1,3-Propanediamine, N1-(3-aminopropyl)-N1-[2-[(3-aminopropyl)amino]ethyl]	≥1.0 - ≤5.0	79506-61-9
-		
benzyl alcohol	≥1.0 - ≤3.7	100-51-6
3-aminopropyldiethylamine	≥1.0 - ≤3.7	104-78-9

### Section 3. Composition/information on ingredients

salicylic acid	<1.0	69-72-7
carbon black	≤1.0	1333-86-4

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.
- 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** : ☒ No known significant effects or critical hazards.
- Skin contact** : Causes severe burns. Toxic in contact with skin. Defatting to the skin. May cause an allergic skin reaction.
- Ingestion** : Harmful if swallowed.

##### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations

## Section 4. First aid measures

- 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.
- 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** : No specific fire or explosion hazard.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon oxides  
nitrogen 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. 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** : Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. 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). Persons with a history of skin sensitization problems 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 ingest. 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.

Section 7. Handling and storage

**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. 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.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
3,6,9-triazaundecamethylenediamine	None.
N,N'-bis(3-aminopropyl)ethylenediamine	None.
1,2-Ethanediamine, N1-(2-aminoethyl)-, reaction products with glycidyl p-tolyl ether	None.
2-Propenenitrile, reaction products with ethylenediamine, hydrogenated, N-benzyl derivs.	None.
2,4,6-tris(dimethylaminomethyl)phenol	None.
reaction products of benzaldehyde diethylenetriamine and triethylenetetramine, hydrogenated	None.
N-(2-aminoethyl)-1,3-propanediamine	None.
1,3-Propanediamine, N1-(3-aminopropyl)-N1-[2-[(3-aminopropyl)amino]ethyl]-benzyl alcohol	None.
	<b>IPEL (-)</b> TWA: 5 ppm. STEL: 10 ppm.
3-aminopropyldiethylamine	None.
salicylic acid	None.
carbon black	<b>ACGIH TLV (United States, 7/2023)</b> TWA 8 hours: 3 mg/m³. Form: Inhalable fraction. <b>OSHA PEL (United States, 5/2018)</b> TWA 8 hours: 3.5 mg/m³.

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.

## Section 8. Exposure controls/personal protection

**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. 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** : 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** : 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. The respiratory protection shall be in accordance to 29 CFR 1910.134.

## Section 9. Physical and chemical properties

### Appearance

**Physical state** : Solid.

**Color** : Black.

**Odor** : Not available.

**Odor threshold** : Not available.

**pH** : Not applicable.

**Melting point** : Not available.

**Boiling point** : Not available.

Section 9. Physical and chemical properties

Flash point : Closed cup: 100.56°C (213°F)

Auto-ignition temperature : Not applicable.

Decomposition temperature : Not available.

Flammability : Not available.

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

Evaporation rate : Not available.

Vapor pressure : Not available.

Vapor density : Not applicable.

Relative density : 1.03

Density ( lbs / gal ) : 8.6

Solubility(ies)	Media	Result
	cold water	Partially soluble

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

Viscosity : Dynamic (room temperature): Not available.  
Kinematic (room temperature): Not available.  
Kinematic (40°C (104°F)): Not applicable.

VOC : 0

% 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 : 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 : Depending on conditions, decomposition products may include the following materials:  
carbon oxides nitrogen oxides metal oxide/oxides

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
3,6,9-triazaundecamethylenediamine	LD50 Dermal	Rabbit	0.66 g/kg	-
	LD50 Oral	Rat	0.205 g/kg	-
N,N'-bis(3-aminopropyl) ethylenediamine	LD50 Dermal	Rabbit	>200 mg/kg	-
	LD50 Oral	Rat	1140 mg/kg	-
2,4,6-tris (dimethylaminomethyl)phenol	LD50 Dermal	Rat	1280 mg/kg	-
	LD50 Oral	Rat	1200 mg/kg	-
reaction products of benzaldehyde diethylenetriamine and triethylenetetramine, hydrogenated	LD50 Oral	Rat	>300 mg/kg	-
N-(2-aminoethyl)-1,3-propanediamine	LD50 Dermal	Rabbit - Male, Female	184 mg/kg	-
	LD50 Oral	Rat - Male, Female	654 mg/kg	-
benzyl alcohol	LC50 Inhalation Dusts and mists	Rat	>5 mg/l	4 hours
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	1200 mg/kg	-
3-aminopropyldiethylamine	LD50 Dermal	Rabbit	524 mg/kg	-
	LD50 Oral	Rat	550 mg/kg	-
salicylic acid	LD50 Oral	Rat	0.891 g/kg	-
carbon black	LD50 Oral	Rat	>10 g/kg	-

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

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
N,N'-bis(3-aminopropyl) ethylenediamine	Skin - Edema	Rabbit	2	-	-

#### 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

Product/ingredient name	Route of exposure	Species	Result
N,N'-bis(3-aminopropyl) ethylenediamine	skin	Guinea pig	Sensitizing

#### Conclusion/Summary

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

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

#### Mutagenicity



Section 11. Toxicological information

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
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
 3-aminopropyldiethylamine	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.


Target organs : Contains material which causes damage to the following organs: blood, liver, heart, brain, central nervous system (CNS).  
Contains material which may cause damage to the following organs: kidneys, upper respiratory tract, skin, eyes.

Aspiration hazard

Not available.

Information on the likely routes of exposure

Potential acute health effects

- Eye contact : Causes serious eye damage.
- Inhalation :  No known significant effects or critical hazards.
- Skin contact : Causes severe burns. Toxic in contact with skin. Defatting to the skin. May cause an allergic skin reaction.
- Ingestion : Harmful if swallowed.

Over-exposure signs/symptoms

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

## Section 11. Toxicological information

- Inhalation** : Adverse symptoms may include the following:  
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

### 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. Can form nitrosamines in the presence of certain organic materials and if heated. 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. 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. Exposure to amine vapor has been reported to cause transient corneal edema described as blue haze, halo effect, foggy or blurred vision for several hours. This condition is typically temporary and does not cause permanent visual effects. When the proper eye protection specified in Section 8 is worn, exposure is significantly reduced and the condition has not been observed.

### 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** : 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.

## Section 11. Toxicological information

- 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** : Suspected of damaging fertility or the unborn child.

### Numerical measures of toxicity

#### Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
PR-2936 Part B	687.9	764.5	N/A	N/A	N/A
3,6,9-triazaundecamethylenediamine	500	1100	N/A	N/A	N/A
N,N'-bis(3-aminopropyl)ethylenediamine	1140	300	N/A	N/A	N/A
1,2-Ethanediamine, N1-(2-aminoethyl)-, reaction products with glycidyl p-tolyl ether	500	N/A	N/A	N/A	N/A
2,4,6-tris(dimethylaminomethyl)phenol	1200	1280	N/A	N/A	N/A
reaction products of benzaldehyde diethylenetriamine and triethylenetetramine, hydrogenated	500	N/A	N/A	N/A	N/A
N-(2-aminoethyl)-1,3-propanediamine	654	184	N/A	N/A	N/A
benzyl alcohol	1200	2500	N/A	N/A	N/A
3-aminopropyldiethylamine	550	524	N/A	N/A	N/A
salicylic acid	891	N/A	N/A	N/A	N/A

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
2,4,6-tris(dimethylaminomethyl)phenol  reaction products of benzaldehyde diethylenetriamine and triethylenetetramine, hydrogenated  N-(2-aminoethyl)-1,3-propanediamine  3-aminopropyldiethylamine  salicylic acid	Acute LC50 >100 mg/l	Daphnia	48 hours
	Acute LC50 >100 mg/l	Fish	96 hours
	EC50 2.766 mg/l	Algae	72 hours
	EC50 11.487 mg/l	Daphnia	48 hours
	LC50 282.69 mg/l	Fish	96 hours
	Acute EC50 25.93 mg/l	Daphnia	48 hours
	Chronic NOEC 7.2 mg/l	Daphnia	21 days
	Acute EC50 34 mg/l	Algae	72 hours
	Acute EC50 30.16 mg/l	Daphnia	48 hours
	Acute LC50 146.6 mg/l	Fish	96 hours
	Acute EC50 1147.57 mg/l Fresh water	Daphnia - <i>Daphnia longispina</i> - Neonate	48 hours
	Chronic NOEC 5.6 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	21 days

## Section 12. Ecological information

### Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
2,4,6-tris (dimethylaminomethyl)phenol	OECD 301D Ready Biodegradability - Closed Bottle Test	4 % - Not readily - 28 days	-	-
N-(2-aminoethyl) -1,3-propanediamine	OECD 301B Ready Biodegradability - CO <sub>2</sub> Evolution Test	15 % - Not readily - 28 days	-	-
3-aminopropyldiethylamine	OECD 301A Ready Biodegradability - DOC Die-Away Test	90 to 100 % - Readily - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2,4,6-tris (dimethylaminomethyl)phenol	-	-	Not readily
N-(2-aminoethyl) -1,3-propanediamine	-	-	Not readily
benzyl alcohol	-	-	Readily
3-aminopropyldiethylamine	-	-	Readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
2,4,6-tris (dimethylaminomethyl)phenol	0.219	-	Low
benzyl alcohol	0.87	-	Low
salicylic acid	2.21 to 2.26	-	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. 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. 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	UN1759	UN1759	UN1759
UN proper shipping name	CORROSIVE SOLID, N.O.S.  (3,6,9-triazaundecamethylenediamine, N,N'-bis(3-aminopropyl) ethylenediamine)	CORROSIVE SOLID, N.O.S.  (3,6,9-triazaundecamethylenediamine, N,N'-bis(3-aminopropyl) ethylenediamine)	CORROSIVE SOLID, N.O.S.  (3,6,9-triazaundecamethylenediamine, N,N'-bis(3-aminopropyl) ethylenediamine)
Transport hazard class(es)	8	8	8
Packing group	II	II	II
Environmental hazards	No.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Marine pollutant substances	Not applicable.	(3,6,9-triazaundecamethylenediamine)	Not applicable.

Additional information

DOT

: None identified.

IMDG

: The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. The segregation group has been manually assigned based upon product analysis.

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.

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.

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : ACUTE TOXICITY (oral) - Category 4  
ACUTE TOXICITY (dermal) - Category 3  
SKIN CORROSION - Category 1  
SERIOUS EYE DAMAGE - Category 1  
SKIN SENSITIZATION - Category 1  
CARCINOGENICITY - Category 2  
TOXIC TO REPRODUCTION - Category 2  
HNOC - Defatting irritant

Composition/information on ingredients

Name	%	Classification
3,6,9-triazaundecamethylenediamine	≥20 - ≤50	ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 SKIN CORROSION - Category 1 SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1B HNOC - Defatting irritant
N,N'-bis(3-aminopropyl) ethylenediamine	≥10 - ≤20	ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 3 SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1A
1,2-Ethanediamine, N1-(2-aminoethyl)-, reaction products with glycidyl p-tolyl ether	≥10 - ≤20	COMBUSTIBLE DUSTS ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION - Category 1C SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1B
2-Propenenitrile, reaction products with ethylenediamine, hydrogenated, N-benzyl derivs.	≥10 - ≤20	SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1B
2,4,6-tris(dimethylaminomethyl) phenol	≥5.0 - ≤10	ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 SKIN CORROSION - Category 1C SERIOUS EYE DAMAGE - Category 1
reaction products of benzaldehyde diethylenetriamine and triethylenetetramine, hydrogenated	≥5.0 - ≤10	ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1
N-(2-aminoethyl) -1,3-propanediamine	≥1.0 - ≤3.7	ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 2 SKIN CORROSION - Category 1A SERIOUS EYE DAMAGE - Category 1

## Section 15. Regulatory information

1,3-Propanediamine, N1-(3-aminopropyl)-N1-[2-[(3-aminopropyl)amino]ethyl]-benzyl alcohol	≥1.0 - ≤5.0	SKIN SENSITIZATION - Category 1A COMBUSTIBLE DUSTS SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A ACUTE TOXICITY (oral) - Category 4 EYE IRRITATION - Category 2A
3-aminopropyldiethylamine	≥1.0 - ≤3.7	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 3 SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1B TOXIC TO REPRODUCTION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
salicylic acid	<1.0	COMBUSTIBLE DUSTS ACUTE TOXICITY (oral) - Category 4 SERIOUS EYE DAMAGE - Category 1
carbon black	≤1.0	TOXIC TO REPRODUCTION - Category 2 COMBUSTIBLE DUSTS CARCINOGENICITY - Category 2

### California Prop. 65

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

## Section 16. Other information

Please refer to Section 2 of this document for GHS hazard classifications.

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

**Date of previous issue** : 7/23/2024

**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.