

# SAFETY DATA SHEET



Date of issue 5 January 2026

Version 2.01

## Section 1. Identification

Chemical name : SIGMADUR 188/520/550 HARDENER  
GHS product identifier : SIGMADUR 188/520/550 HARDENER  
Code : 000010023534  
Synonyms : 00393171; 00393272

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

Product use : Coating.  
Professional applications, Used by spraying.  
Supplier's details : PPG Industries International Inc. Taiwan Branch.  
No.209, Hong Tzuenn Rd Ping Chen City, Taoyuan County, Taiwan  
Tel: 886 3 3663922  
886 3 3751639 (Automotive OEM Coatings Products).  
Fax: 886 3 2182667  
Emergency telephone number : +886-3-3663922  
+886-911998320

## Section 2. Hazards identification

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3  
ACUTE TOXICITY (oral) - Category 5  
ACUTE TOXICITY (dermal) - Category 5  
ACUTE TOXICITY (inhalation) - Category 4  
SKIN CORROSION/IRRITATION - Category 2  
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A  
SKIN SENSITIZATION - Category 1  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1  
AQUATIC TOXICITY (ACUTE) - Category 3  
AQUATIC TOXICITY (CHRONIC) - Category 3  
Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1.3%  
Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 16.2%

### GHS label elements

Hazard pictograms :



## Section 2. Hazards identification

### Signal word

: Danger

### Hazard statements

: Flammable liquid and vapor.  
May be harmful if swallowed or in contact with skin.  
Causes skin irritation.  
May cause an allergic skin reaction.  
Causes serious eye irritation.  
Harmful if inhaled.  
May cause respiratory irritation.  
Causes damage to organs through prolonged or repeated exposure.  
Harmful to aquatic life with long lasting effects.

### Precautionary statements

#### Prevention

: Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

#### Response

: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical help. IF SWALLOWED: Get medical help. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water. IF ON SKIN: Get medical help. Wash with plenty of water. If skin irritation or rash occurs: Get medical help. If skin irritation occurs: Get medical help. Take off contaminated clothing and wash it before reuse. 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 help. Get medical help if you feel unwell.

#### Storage

: Store locked up.

#### Disposal

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

**Other hazards which do not result in classification** : Prolonged or repeated contact may dry skin and cause irritation.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

Hazardous ingredients	% (w/w)	CAS no.	Type
Hexamethylene diisocyanate, oligomers (isocyanurate type)	≥50	28182-81-2	[1]
xylene	≥10 - ≤20	1330-20-7	[1] [2]
n-butyl acetate	≥3 - ≤5	123-86-4	[1] [2]
ethylbenzene	≥1 - ≤3	100-41-4	[1] [2] [3]
Solvent naphtha (petroleum), light aromatic	≥1 - ≤3	64742-95-6	[1]
1,2,4-trimethylbenzene	≥1 - ≤3	95-63-6	[1] [2]

## Section 3. Composition/information on ingredients

Hazardous ingredients	% (w/w)	CAS number	Type
Hexamethylene diisocyanate, oligomers (isocyanurate type)	≥50	28182-81-2	[1]
Xylene	≥10 - ≤20	1330-20-7	[1] [2]
Butyl acetate	≥3 - ≤5	123-86-4	[1] [2]
ethylbenzene	≥1 - ≤3	100-41-4	[1] [2] [3]
Solvent naphtha (petroleum), light aromatic	≥1 - ≤3	64742-95-6	[1]
1,2,4-trimethylbenzene	≥1 - ≤3	95-63-6	[1] [2]

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.

### Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Toxic chemical substance

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

SUB codes represent substances without registered CAS Numbers.

## Section 4. First aid measures

### Description of necessary 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.

#### Ingestion

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

#### 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.

#### 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.

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

#### Potential acute health effects

**Eye contact** : Causes serious eye irritation.

**Inhalation** : Harmful if inhaled. May cause respiratory irritation.

**Skin contact** : May be harmful in contact with skin. Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.

**Ingestion** : May be harmful if swallowed.

### Over-exposure signs/symptoms

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

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

## Section 4. First aid measures

### Skin contact

- : Adverse symptoms may include the following:  
irritation  
redness  
dryness  
cracking

### Ingestion

- : No specific data.

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

#### Notes to physician

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

#### Specific treatments

- : No specific treatment.

#### Protection of first-aiders

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

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

#### Suitable

- : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

#### Not suitable

- : Do not use water jet.

### Specific hazards arising from the chemical

- : Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

### Hazardous thermal decomposition products

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

### Special protective actions for fire-fighters

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

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

### 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

#### 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.

#### 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.

#### 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

: 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. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. 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

## Section 7. Handling and storage

### Conditions for safe storage, including any incompatibilities

precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. 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. See Section 10 for incompatible materials before handling or use. Precautions should be taken to minimize exposure to atmospheric humidity or water. CO<sub>2</sub> will be formed, which, in closed containers, could result in pressurization.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

xylene

#### TW Minstry of Labor, labor permissible workplace exposure standards, allowable concentration (Taiwan, 3/2018) [xylenes]

STEL 15 minutes: 125 ppm.

STEL 15 minutes: 542.5 mg/m<sup>3</sup>.

TWA 8 hours: 100 ppm.

TWA 8 hours: 434 mg/m<sup>3</sup>.

n-butyl acetate

#### TW Minstry of Labor, labor permissible workplace exposure standards, allowable concentration (Taiwan, 3/2018)

STEL 15 minutes: 187.5 ppm.

STEL 15 minutes: 890 mg/m<sup>3</sup>.

TWA 8 hours: 150 ppm.

TWA 8 hours: 712 mg/m<sup>3</sup>.

ethylbenzene

#### TW Minstry of Labor, labor permissible workplace exposure standards, allowable concentration (Taiwan, 3/2018)

STEL 15 minutes: 125 ppm.

STEL 15 minutes: 542.5 mg/m<sup>3</sup>.

TWA 8 hours: 100 ppm.

TWA 8 hours: 434 mg/m<sup>3</sup>.

1,2,4-trimethylbenzene

#### TW Minstry of Labor, labor permissible workplace exposure standards, allowable concentration (Taiwan, 3/2018)

##### [Trimethylbenzene]

STEL 15 minutes: 37.5 ppm.

STEL 15 minutes: 184.5 mg/m<sup>3</sup>.

TWA 8 hours: 25 ppm.

TWA 8 hours: 123 mg/m<sup>3</sup>.

## Section 8. Exposure controls/personal protection

<b>Appropriate engineering controls</b>	: 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.
<b>Individual protection measures</b>	
<b>Respiratory protection</b>	: 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.
<b>Hand protection</b>	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
<b>Gloves</b>	: butyl rubber
<b>Skin protection</b>	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
<b>Eye protection</b>	: Chemical splash goggles.
<b>Hygiene measures</b>	: 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.
<b>Restrictions on use</b>	: Persons with a history of asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used.

## Section 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	: Liquid.
<b>Color</b>	: Colorless.
<b>Odor</b>	: Aromatic.
<b>Odor threshold</b>	: Not available.
<b>pH</b>	: Not applicable.
<b>Melting point</b>	: Not available.
<b>Boiling point</b>	: >37.78°C (>100°F)
<b>Flash point</b>	: Closed cup: 32°C (89.6°F)
<b>Flammability (solid, gas)</b>	: Not available.
<b>Burning time</b>	: Not applicable.

## Section 9. Physical and chemical properties

Burning rate	:	Not applicable.
Decomposition temperature	:	Not available.
Evaporation rate	:	Not available.
Lower and upper explosive (flammable) limits	:	Not available.
Vapor pressure	:	Not available.
Vapor density	:	Not available.
Relative density	:	1.07
Solubility(ies)	Media	Result
	cold water	Not soluble
Partition coefficient: n-octanol/water	:	Not applicable.
Auto-ignition temperature	:	Not available.
Viscosity	:	Dynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C): >21 mm <sup>2</sup> /s

## Section 10. Stability and reactivity

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.
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 hydrogen cyanide
Hazardous polymerization	:	Under normal conditions of storage and use, hazardous polymerization will not occur.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Hexamethylene diisocyanate, oligomers (isocyanurate type)	LD50 Dermal	Rabbit	>2000 mg/kg	-
Xylene	LD50 Oral LD50 Dermal	Rat - Female Rabbit	>2500 mg/kg 1.7 g/kg	- -
Butyl acetate	LD50 Oral LC50 Inhalation Vapor LC50 Inhalation Vapor	Rat Rat Rat	4.3 g/kg >21.1 mg/l 2000 ppm	- 4 hours 4 hours

## Section 11. Toxicological information

ethylbenzene	LD50 Dermal LD50 Oral LC50 Inhalation Vapor	Rabbit Rat Rat	>17600 mg/kg 10.768 g/kg 17.8 mg/l	- - 4 hours
Solvent naphtha (petroleum), light aromatic	LD50 Dermal LD50 Oral	Rabbit Rat	17.8 g/kg 3.5 g/kg	- -
1,2,4-trimethylbenzene	LD50 Dermal LD50 Oral LC50 Inhalation Vapor	Rabbit Rat Rat	3.48 g/kg 8400 mg/kg 18000 mg/m <sup>3</sup>	- - 4 hours

### Irritation/Corrosion

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

### Sensitization

Not available.

### Mutagenicity

Not available.

### Carcinogenicity

Not available.

### Reproductive toxicity

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Hexamethylene diisocyanate, oligomers (isocyanurate type)	Category 3	-	Respiratory tract irritation
Butyl acetate	Category 3	-	Narcotic effects
Solvent naphtha (petroleum), light aromatic	Category 3	-	Narcotic effects
1,2,4-trimethylbenzene	Category 3	-	Respiratory tract irritation

### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Xylene ethylbenzene	Category 1 Category 2	- -	- hearing organs

### Aspiration hazard

## Section 11. Toxicological information

Name	Result
Xylene	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1
Solvent naphtha (petroleum), light aromatic	ASPIRATION HAZARD - Category 1

**Information on the likely routes of exposure** : Not available.

### Potential acute health effects

**Inhalation** : Harmful if inhaled. May cause respiratory irritation.

**Ingestion** : May be harmful if swallowed.

**Skin contact** : May be harmful in contact with skin. Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.

**Eye contact** : Causes serious eye irritation.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eyes** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness

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

**Skin** : Adverse symptoms may include the following:  
irritation  
redness  
dryness  
cracking

**Ingestion** : No specific data.

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

#### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Potential chronic health effects

Not available.

## Section 11. Toxicological information

<b>General</b>	: Causes damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
<b>Carcinogenicity</b>	: No known significant effects or critical hazards.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Reproductive toxicity</b>	: No known significant effects or critical hazards.
<b>Inhalation</b>	: No known significant effects or critical hazards.
<b>Ingestion</b>	: No known significant effects or critical hazards.
<b>Skin contact</b>	: Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
<b>Eye contact</b>	: 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)
SIGMADUR 188/520/550 HARDENER	2925.6	2576.3	N/A	397.2	1.6
Hexamethylene diisocyanate, oligomers (isocyanurate type)	2500	2500	N/A	N/A	1.5
Xylene	4300	1700	N/A	N/A	N/A
Butyl acetate	10768	N/A	N/A	N/A	N/A
ethylbenzene	3500	17800	N/A	17.8	1.5
Solvent naphtha (petroleum), light aromatic	8400	3480	N/A	N/A	N/A
1,2,4-trimethylbenzene	5000	N/A	N/A	18	1.5

#### **Other information** :

Prolonged or repeated contact may dry skin and cause irritation. 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. 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. 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. Repeated exposure may lead to permanent respiratory disability. Moisture-sensitive material. Avoid contact with skin and clothing.

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Hexamethylene diisocyanate, oligomers (isocyanurate type)	Acute EC50 >1000 mg/l Acute EC50 >100 mg/l	Algae - <i>scenedesmus subspicatus</i> Daphnia - <i>daphnia magna</i>	72 hours 48 hours
Butyl acetate ethylbenzene	Acute LC50 >100 mg/l Acute LC50 18 mg/l Acute EC50 1.8 mg/l Fresh water	Fish - <i>Danio rerio (zebra fish)</i> Fish Daphnia	96 hours 96 hours 48 hours
Solvent naphtha (petroleum), light aromatic	Chronic NOEC 1 mg/l Fresh water Acute LC50 8.2 mg/l	Daphnia - <i>Ceriodaphnia dubia</i> Fish	- 96 hours

### Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Butyl acetate ethylbenzene	TEPA and OECD 301D -	83 % - Readily - 28 days 79 % - Readily - 10 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Hexamethylene diisocyanate, oligomers (isocyanurate type)	-	-	Not readily
Xylene	-	-	Readily
Butyl acetate	-	-	Readily
ethylbenzene	-	-	Readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Hexamethylene diisocyanate, oligomers (isocyanurate type)	5.54	3.2	Low
Xylene	3.12	7.4 to 18.5	Low
Butyl acetate	2.3	-	Low
ethylbenzene	3.6	79.43	Low
1,2,4-trimethylbenzene	3.63	120.23	Low

### Mobility in soil

Soil/Water partition coefficient : Not available.

Other adverse effects : No known significant effects or critical hazards.

## 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.

## Section 14. Transport information

	UN	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class(es)	3	3	3
Packing group	III	III	III
Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.

### Additional information

UN : None identified.

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

### TCCSCA List of toxic chemicals

Not applicable.

### TCCSCA List of concerned chemicals

Not applicable.

Regulations Applicable:

1. Rules for Occupational Safety and Health Facilities
2. Regulations for the Labeling and Hazard Communication of Hazardous Chemicals
3. Prevention Rules for Organic Solvent Intoxication/Poisoning
4. Standards of Permissible Exposure Limits of Airborne Hazardous Substances in Workplace
5. Traffic Safety Regulation of Road
6. Regulation for Governing, Designating and Handling of Priority Management Chemicals

## Section 16. Other information

References	Not available.	
Organization that prepared the SDS	<p><b>Name:</b> PPG Industries International Inc., Taiwan Branch</p> <p><b>Address / Telephone :</b> No. 209, Hong Tzuenn Rd. Ping Chen City, Taoyuan County, Taiwan +886-3-3663922 +886-911998320</p>	
Person who prepared the SDS	<p><b>Title:</b> Technical manager</p>	<p><b>Name: (Signature):</b> Tony Cheng</p>
Date of issue	5 January 2026	

Date of previous issue : 9/25/2025

Version : 2.01

☛ Indicates information that has changed from previously issued version.

Remarks : New SDS layout incorporating TW Table 2017

Key to abbreviations : ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

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)

RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail

UN = United Nations

## Section 16. Other information

### Disclaimer

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