

Date of issue 10/8/2025 (month/day/year)

Version 1.03

## Section 1. Chemical product and company identification

A. Product name : STEELGUARD 951 BAS L/GREY  
Product code : 000010025463

Other means of identification

00483013; 00483017

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

Product use : Professional applications, Used by spraying.  
Use of the substance/  
mixture : Coating.  
Uses advised against : Product is not intended, labelled or packaged for consumer use.

C. Supplier's or Importer's  
information : PPG SSC  
(44714)  
19, Yeocheon-ro 217beon-gil, Nam-gu,  
Ulsan, Korea  
Tel: +82-52-210-8222

Email Address : Korea.MSDS@PPG.COM

Emergency telephone  
number: : +82-52-210-8331

## Section 2. Hazards identification

A. Hazard classification : ACUTE TOXICITY (inhalation) - Category 1  
SKIN IRRITATION - Category 2  
EYE IRRITATION - Category 2A  
SKIN SENSITIZATION - Category 1  
CARCINOGENICITY - Category 2  
AQUATIC HAZARD (LONG-TERM) - Category 2  
This product is classified in accordance with the Industrial Safety and Health Act and the Chemical Control Act.

B. GHS label elements, including precautionary statements

Symbol :   

Signal word : Danger

## Section 2. Hazards identification

- Hazard statements** : H315 - Causes skin irritation.  
H317 - May cause an allergic skin reaction.  
H319 - Causes serious eye irritation.  
H330 - Fatal if inhaled.  
H351 - Suspected of causing cancer.  
H411 - Toxic to aquatic life with long lasting effects.
- Precautionary statements**
- Prevention** : P202 - Do not handle until all safety precautions have been read and understood.  
P280 - Wear protective gloves, protective clothing and eye or face protection.  
P284 - In case of inadequate ventilation wear respiratory protection.  
P273 - Avoid release to the environment.  
P260 - Do not breathe vapor.  
P264 - Wash thoroughly after handling.
- Response** : P391 - Collect spillage.  
P320 - Specific treatment is urgent (see the label).  
P308 + P313 - IF exposed or concerned: Get medical advice or attention.  
P304 + P340, P310 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor.  
P302 + P352 - IF ON SKIN: Wash with plenty of water.  
P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.  
P362 + P364 - Take off contaminated clothing and wash it before reuse.  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337 + P313 - If eye irritation persists: Get medical advice or attention.
- Storage** : P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
- Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
- C. Other hazards which do not result in classification** : Contains a substance that may emit formaldehyde if stored beyond its shelf life and/or during cure at curing temperatures greater than 60C ( 140F).

## Section 3. Composition/information on ingredients

### CAS number/other identifiers

**CAS number** : Not applicable.

Chemical name	Common name	Identifiers	%
AMMONIUM POLYPHOSPHATE	AMMONIUM POLYPHOSPHATE	CAS: 68333-79-9	40 - <50
bisphenol F diglycidyl ether, isomer mixture	bisphenol F diglycidyl ether, isomer mixture	EC: 269-789-9 CAS: SUB140549	10 - <20
1,6-hexanediol diacrylate	1,6-Hexanediol diacrylate	CAS: 13048-33-4 EC: 235-921-9	5 - <10
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	FORMALDEHYDE OLIGOMERIC REACT. PROD. WITH 1-CHLORO-2,3-EPOXYPROPANE & PHENOL	CAS: 9003-36-5	5 - <10
1-CHLORO-2-PROPANOL PHOSPHATE	TRI(2-PROPYL)PHOSPHATE	EC: 500-006-8 CAS: 13674-84-5 EC: 237-158-7	5 - <10

### Section 3. Composition/information on ingredients

titanium dioxide	TITANIUM DIOXIDE	CAS: 13463-67-7 EC: 236-675-5	5 - <10
PHENOL, STYRENATED	PHENOLIC RESIN	CAS: 61788-44-1 EC: 262-975-0	5 - <10
Phenol, polymer with formaldehyde, glycidyl ether	phenol, polymer with formaldehyde, glycidyl ether	CAS: 28064-14-4	1 - <5
Dodecanedioic acid, polymer with 2,2'-[1,4-butanediylbis(oxymethylene)]bis[oxirane], (chloromethyl)oxirane, 4,4'-(1-methylethylidene)bis[phenol], nonanedioic acid and 2,2'-oxybis[ethanol]	Dodecanedioic acid, polymer with 2,2'-[1,4-butanediylbis(oxymethylene)]bis[oxirane], (chloromethyl)oxirane, 4,4'-(1-methylethylidene)bis[phenol], nonanedioic acid and 2,2'-oxybis[ethanol]	CAS: 139651-91-5	1 - <5
CARBON	CARBON	CAS: 7440-44-0 EC: 231-153-3	1 - <5

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

- A. 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. In case of accidental eye contact, avoid direct exposure to the sun or other sources of UV light as severe irritation including burns may result. These reactions can be delayed – get medical attention if pain, irritation or blistering occurs after contact.
- B. 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.
- C. 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.
- D. Ingestion** : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.
- E. Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### A. Extinguishing media

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

**Unsuitable extinguishing media** : None known.

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

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon oxides  
phosphorus oxides  
halogenated compounds  
metal oxide/oxides  
Formaldehyde.

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

**Fire-fighting procedures** : 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.

## Section 6. Accidental release measures

**A. 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. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**B. 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. Collect spillage.

### C. Methods and materials for containment and cleaning up

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

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

## Section 7. Handling and storage

- A. 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. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Materials such as cleaning rags, paper wipes and protective clothing, which are contaminated with the product may spontaneously self-ignite some hours later. To avoid the risks of fires, all contaminated materials should be stored in purpose-built containers or in metal containers with tight-fitting, self-closing lids. Contaminated materials should be removed from the workplace at the end of each working day and be stored outside.
- B. Conditions for safe storage, including any incompatibilities** : Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### A. Occupational exposure limits

Ingredient name	Exposure limits
titanium dioxide  CARBON	<b>ISHA Article 42 (Republic of Korea, 1/2020)</b> TWA 8 hours: 10 mg/m <sup>3</sup> . <b>ACGIH TLV (United States)</b> TWA: 10 mg/m <sup>3</sup> (Inhalable). TWA: 3 mg/m <sup>3</sup> (Respirable dust).

- 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.
- B. Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- C. Personal protective equipment**

## Section 8. Exposure controls/personal protection

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

## Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### A. Appearance

**Physical state** : Liquid.

**Color** : Various

**B. Odor** : Characteristic.

**C. Odor threshold** : Not available.

**D. pH** : Not applicable.

**E. Melting/freezing point** : Not available.

**F. Boiling point/boiling range** : >37.78°C (>100°F)

**G. Flash point** : Closed cup: Not applicable.

**H. Evaporation rate** : Not available.

**I. Flammability (solid, gas)** : Not available.

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

**K. Vapor pressure** :

## Section 9. Physical and chemical properties

	Ingredient name	Vapor Pressure at 20° C			Vapor pressure at 50° C		
		mm Hg	kPa	Method	mm Hg	kPa	Method
	carbon	<0.1	<0.013				
L. Solubility(ies)	Media	Result					
	cold water	Not soluble					
	Solubility in water	: Not available.					
	Vapor density	: Not available.					
M.	Relative density	: 1.53					
N.	Partition coefficient: n-octanol/water	: Not applicable.					
O.	Auto-ignition temperature	:					
P.							
		Ingredient name	°C	°F	Method		
		carbon	<200	<392			
Q.	Decomposition temperature	: Not available.					
R.	Viscosity	: Dynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C (104°F)): >21 mm²/s (>21 cSt)					
	Flow time (ISO 2431)	: Not available.					
S.	Molecular weight	: Not applicable.					

## Section 10. Stability and reactivity

- A. Chemical stability : The product is stable.
- Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.
- B. Conditions to avoid : When exposed to high temperatures may produce hazardous decomposition products.
- C. Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
- D. Hazardous decomposition products : Depending on conditions, decomposition products may include the following materials: carbon oxides phosphorus oxides halogenated compounds Formaldehyde. metal oxide/oxides



## Section 11. Toxicological information

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

### Potential acute health effects

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

### Over-exposure signs/symptoms

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

## B. Health hazards

### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
AMMONIUM POLYPHOSPHATE bisphenol F diglycidyl ether, isomer mixture	LD50 Oral	Rat	4.74 g/kg	-
	LD50 Dermal	Rat - Male, Female	>2000 mg/kg	-
	LD50 Oral	Rat - Male, Female	>2000 mg/kg	-
1,6-hexanediol diacrylate	LD50 Dermal	Rabbit	3.65 g/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
	LD50 Oral	Rat	>10000 mg/kg	-
Formaldehyde, oligomeric reaction products with 1-chloro- 2,3-epoxypropane and phenol 1-CHLORO-2-PROPANOL PHOSPHATE	LC50 Inhalation Dusts and mists	Rat	>7 mg/l	4 hours
	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	1500 mg/kg	-
titanium dioxide	LC50 Inhalation Dusts and mists	Rat	>6.82 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
PHENOL, STYRENATED	LD50 Dermal	Rabbit	>5010 mg/kg	-
	LD50 Oral	Rat	3550 mg/kg	-

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

### Irritation/Corrosion

#### Conclusion/Summary

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



## Section 11. Toxicological information

### Sensitization

Product/ingredient name	Route of exposure	Species	Result
1,6-hexanediol diacrylate PHENOL, STYRENATED	skin skin	Guinea pig Mouse	Sensitizing Sensitizing

### Conclusion/Summary

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

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

### Mutagenicity

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

### Carcinogenicity

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

### 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	Classification	Route of exposure	Target organs
CARBON	Category 3	-	Respiratory tract irritation

### Specific target organ toxicity (repeated exposure)

Name	Classification	Route of exposure	Target organs
PHENOL, STYRENATED	Category 2	-	-

### Aspiration hazard

Not available.

### Potential chronic health effects

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

**Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

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

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

### Additional information

## Section 11. Toxicological information

Acrylate components of the mixture have irritating properties. Prolonged or repeated contact with skin or mucous membrane may result in irritation symptoms, such as redness, blistering, dermatitis etc. May cause allergic skin reactions with repeated exposure. The inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract. Ingestion may cause nausea, weakness and central nervous system effects. Contains a substance that may emit formaldehyde if stored beyond its shelf life and/or during cure at curing temperatures greater than 60C ( 140F). In case of accidental skin contact, avoid direct exposure to the sun or other sources of UV light as severe irritation including burns may result. These reactions can be delayed – get medical attention if pain, irritation, rash or blistering occurs after contact.

Chemical name	Identifiers	GHS Classification
AMMONIUM POLYPHOSPHATE	CAS: 68333-79-9 EC: 269-789-9	EYE IRRITATION - Category 2A
bisphenol F diglycidyl ether, isomer mixture	CAS: SUB140549	SKIN IRRITATION - Category 2
1,6-hexanediol diacrylate	CAS: 13048-33-4 EC: 235-921-9	EYE IRRITATION - Category 2B SKIN SENSITIZATION - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 2 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 AQUATIC HAZARD (ACUTE) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 2 SKIN IRRITATION - Category 2
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	CAS: 9003-36-5	SKIN SENSITIZATION - Category 1B AQUATIC HAZARD (LONG-TERM) - Category 2 ACUTE TOXICITY (oral) - Category 4
1-CHLORO-2-PROPANOL PHOSPHATE	EC: 500-006-8 CAS: 13674-84-5 EC: 237-158-7	ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 AQUATIC HAZARD (LONG-TERM) - Category 3 CARCINOGENICITY - Category 2
titanium dioxide	CAS: 13463-67-7 EC: 236-675-5	ACUTE TOXICITY (inhalation) - Category 1 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 AQUATIC HAZARD (LONG-TERM) - Category 2 AQUATIC HAZARD (LONG-TERM) - Category 4
PHENOL, STYRENATED	CAS: 61788-44-1 EC: 262-975-0	EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 AQUATIC HAZARD (LONG-TERM) - Category 2 AQUATIC HAZARD (LONG-TERM) - Category 4
Phenol, polymer with formaldehyde, glycidyl ether	CAS: 28064-14-4	EYE IRRITATION - Category 2A
Dodecanedioic acid, polymer with 2,2'-[1,4-butanediylbis(oxymethylene)]bis[oxirane], (chloromethyl)oxirane, 4,4'-(1-methylethylidene)bis[phenol], nonanedioic acid and 2,2'-oxybis[ethanol]	CAS: 139651-91-5	SKIN SENSITIZATION - Category 1B SELF-HEATING SUBSTANCES AND MIXTURES - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
CARBON	CAS: 7440-44-0 EC: 231-153-3	

## Section 12. Ecological information

### A. Ecotoxicity

Product/ingredient name	Result	Species	Exposure
AMMONIUM POLYPHOSPHATE bisphenol F diglycidyl ether, isomer mixture  Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol titanium dioxide PHENOL, STYRENATED	Acute EC50 730.5 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours
	EC50 >1.8 mg/l	Algae	72 hours
	EC50 >1000 mg/l	Daphnia	48 hours
	LC50 2.54 mg/l	Fish	96 hours
	NOEC 0.3 mg/l	Daphnia	21 days
	Acute LC50 2.54 mg/l	Fish	96 hours
PHENOL, STYRENATED	Acute LC50 >100 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute EC50 3.8 mg/l	Daphnia	48 hours

### B. Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
bisphenol F diglycidyl ether, isomer mixture	-	0 % - Not readily - 28 days	-	-
PHENOL, STYRENATED	OECD 301F	7 % - Not readily - 28 days	-	-

  

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
bisphenol F diglycidyl ether, isomer mixture	-	-	Not readily
PHENOL, STYRENATED	-	-	Not readily

### C. Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
bisphenol F diglycidyl ether, isomer mixture	3.6	-	Low
1,6-hexanediol diacrylate	2.81	-	Low
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	2.7	-	Low
1-CHLORO-2-PROPANOL PHOSPHATE	2.68	7.94 [OECD 305 C]	Low

### D. Mobility in soil

Soil/Water partition coefficient : Not available.

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

## Section 13. Disposal considerations

- A. 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.
- B. Disposal precautions** : 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.

## Section 14. Transport information

	UN	IMDG	IATA
<b>A. UN number</b>	UN3082	UN3082	UN3082
<b>B. UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bisphenol F diglycidyl ether, isomer mixture, hexamethylene diacrylate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bisphenol F diglycidyl ether, isomer mixture, hexamethylene diacrylate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bisphenol F diglycidyl ether, isomer mixture, hexamethylene diacrylate)
<b>C. Transport hazard class(es)</b>	9	9	9
<b>D. Packing group</b>	III	III	III
<b>Environmental hazards</b>	Yes.	Yes.	Yes.
<b>E. Marine pollutant substances</b>	Not applicable.	(bisphenol F diglycidyl ether, isomer mixture)	Not applicable.

### Additional information

- UN** : 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.
- 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.

### F. Special precaution which a user to be aware of or needs to comply with in connection with transport or transportation

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

## Section 14. Transport information

Transport in bulk according to IMO instruments : Not applicable.

## Section 15. Regulatory information

### A. Regulation according to ISHA

ISHA article 117 (Harmful substances prohibited from manufacture) : None of the components are listed.

ISHA article 118 (Harmful substances requiring permission) : None of the components are listed.

Article 2 of Youth Protection Act on Substances Hazardous to Youth : It is not allowed to sell to persons under the age of 19.

### Exposure Limits of Chemical Substances and Physical Factors

The following components have an OEL:

titanium dioxide  
CARBON

ISHA Enforcement Regs Annex 19 (Exposure standards established for harmful factors) : None of the components are listed.

ISHA Enforcement Regs Annex 11-5 (Harmful factors subject to Work Environment Measurement) : The following components are listed: titanium dioxide

ISHA Enforcement Regs Annex 22 (Harmful Factors Subject to Special Health Check-up) : None of the components are listed.

Standard of Industrial Safety and Health Annex 12 (Hazardous substances subject to control) : The following components are listed: titanium dioxide

### B. Regulation according to Chemicals Control Act

Article 11 (TRI) : None of the components are listed.

Article 18 Prohibited (K-Reach Article 27) : None of the components are listed.

Article 19 Subject to authorization (K-Reach Article 25) : None of the components are listed.

Article 20 Restricted (K-Reach Article 27) : None of the components are listed.

## Section 15. Regulatory information

- Article 20 Toxic Chemicals (K-Reach Article 20)** : Not applicable
- Korea inventory** : All components are listed or exempted.
- Article 39 (Accident Precaution Chemicals)** : None of the components are listed.
- C. Dangerous Materials Safety Management Act** : Not applicable.
- D. Wastes regulation** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- E. Regulation according to other foreign laws**
- Safety, health and environmental regulations specific for the product** : No known specific national and/or regional regulations applicable to this product (including its ingredients).

## Section 16. Other information

- A. References** : Korean Ministry of Environment; Chemical Control Act  
Korean Ministry of Labor; Industrial Safety and Health Act  
NIER Notice  
Registry of Toxic Effects of Chemical Substances (RTECS)  
U.S. Environmental Protection Agency, AQUIRE (Aquatic toxicity Information Retrieval) ECOTOX Database System.
- B. First issue date** : 6/10/2025
- C. Date of issue/Date of revision** : **10/8/2025**
- D. Version** : **1.03**
- Prepared by** : EHS

**E. Other**

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.*