

Date of issue 4/28/2025 (month/day/year)

Version 3

Section 1. Chemical product and company identification

A. Product name : SIGMAPRIME CSF BASE REDBROWN
 Product code : 000001187759

Other means of identification
 00444304

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
 (680-090)
 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 :  FLAMMABLE LIQUIDS - Category 3
 SKIN IRRITATION - Category 2
 SERIOUS EYE DAMAGE - Category 1
 SKIN SENSITIZATION - Category 1
 CARCINOGENICITY - Category 1A
 TOXIC TO REPRODUCTION - Category 1B
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
 AQUATIC HAZARD (LONG-TERM) - Category 3
 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 : H226 - Flammable liquid and vapor.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H318 - Causes serious eye damage.
H350 - May cause cancer.
H360 - May damage fertility or the unborn child.
H373 - May cause damage to organs through prolonged or repeated exposure.
H412 - Harmful 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.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241 - Use explosion-proof electrical, ventilating or lighting equipment.
P241 - Use explosion-proof electrical, ventilating or lighting equipment.
P242 - Use non-sparking tools.
P243 - Take action to prevent static discharges.
P240 - Ground and bond container and receiving equipment.
P273 - Avoid release to the environment.
P260 - Do not breathe vapor.
P264 - Wash thoroughly after handling.

Response : P370 + P378 - In case of fire: Never use water to extinguish.
P308 + P313 - IF exposed or concerned: Get medical advice or attention.
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.
P305 + P351 + P338, P310 - 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.
P321 - Specific treatment (see the label).

Storage : P403 + P235 - Store in a well-ventilated place. Keep cool.

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 : None known.

Section 3. Composition/information on ingredients

CAS number/other identifiers

CAS number : Not applicable.

Chemical name	Common name	Identifiers	%
4,4'-Isopropylidenedicyclohexanol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	cyclohexanol, 4,4'-(1-methylethylidene) bis-, polymer with (chloromethyl)oxirane	CAS: 30583-72-3	10 -<20
4,4'-(1-methylethylidene)bisphenol polymer with (chloromethyl)oxirane	EPOXY RESIN	EC: 500-070-7 CAS: 25068-38-6	10 -<20
[3-(2,3-epoxypropoxy)propyl]	[3-(2,3-epoxypropoxy)propyl]	EC: 500-033-5 CAS: 2530-83-8	5 - <10

Section 3. Composition/information on ingredients

trimethoxysilane	trimethoxysilane	EC: 219-784-2 CAS: 933999-84-9	5 - <10
1,6-Hexanediol, reaction products with epichlorohydrin	1,6-Hexanediol, reaction products with epichlorohydrin	EC: 618-939-5 CAS: 1309-37-1	1 - <5
Iron oxide	Diiron trioxide	EC: 215-168-2 CAS: 100-51-6	0.1 - <1
Benzyl alcohol	BENZYL ALCOHOL	EC: 202-859-9 CAS: 64-17-5	0.1 - <1
Ethanol	ETHYL ALCOHOL	EC: 200-578-6	

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** : 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.
- 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 dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

B. 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
sulfur oxides
halogenated compounds
metal oxide/oxides

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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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.

C. Methods and materials for containment and cleaning up

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

Section 6. Accidental release measures

- 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.

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. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. 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 precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- 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 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.

Section 8. Exposure controls/personal protection

A. Occupational exposure limits

Ingredient name	Exposure limits
Iron oxide	ISHA Article 42 (Republic of Korea, 1/2020) [Iron oxide] TWA 8 hours: 5 mg/m ³ (as Fe). Form: Fume.
Ethanol	TWA 8 hours: 5 mg/m ³ (as Fe). ISHA Article 42 (Republic of Korea, 1/2020) TWA 8 hours: 1000 ppm.

- 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

- 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. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- C. Personal protective equipment**
- 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 and face shield.
- 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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- 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** : Not available.
- B. Odor** : Characteristic.
- C. Odor threshold** : Not available.
- D. pH** : Not applicable.
- E. Melting/freezing point** : Not available.

Section 9. Physical and chemical properties

- F. Boiling point/boiling range : >37.78°C (>100°F)
- G. Flash point : Closed cup: 51°C (123.8°F)
- H. Evaporation rate : Not available.
- I. Flammability (solid, gas) : Not available.
- J. Lower and upper explosive (flammable) limits : Not available.
- K. Vapor pressure :

Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
3-(2,3-epoxypropoxy)propyltrimethoxysilane	0.0082	0.0011				

- L. Solubility(ies) :

Media	Result
cold water	Not soluble

Solubility in water : Not available.

Vapor density : Not available.

- M. Relative density : 1.79

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

- O. Auto-ignition temperature :

Ingredient name	°C	°F	Method
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	400	752	DIN 51794

- 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.

Section 10. Stability and reactivity

- D. Hazardous decomposition products** : Depending on conditions, decomposition products may include the following materials: carbon oxides sulfur oxides halogenated compounds metal oxide/oxides

Section 11. Toxicological information

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

Potential acute health effects

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

Over-exposure signs/symptoms

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

B. Health hazards

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
4,4'-(1-methylethylidene)bisphenol polymer with (chloromethyl)oxirane	LD50 Dermal	Rabbit	>2 g/kg	-
[3-(2,3-epoxypropoxy)propyl] trimethoxysilane	LD50 Oral	Rat	>2 g/kg	-
	LC50 Inhalation Dusts and mists	Rat	>5.3 mg/l	4 hours
1,6-Hexanediol, reaction products with epichlorohydrin	LD50 Oral	Rat	7.01 g/kg	-
	LD50 Dermal	Rat - Male, Female	>2000 mg/kg	-
	LD50 Oral	Rat - Male, Female	2189 mg/kg	-
Iron oxide	LC50 Inhalation Dusts and mists	Rat	>5 mg/l	4 hours
	LD50 Oral	Rat	10 g/kg	-

Section 11. Toxicological information

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	-
Ethanol	LC50 Inhalation Vapor	Rat	124700 mg/m ³	4 hours
	LD50 Dermal	Rat	17100 mg/kg	-
	LD50 Oral	Rat	7 g/kg	-

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

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
4,4'-(1-methylethylidene) bisphenol polymer with (chloromethyl)oxirane	Eyes - Mild irritant	Rabbit	-	100 mg	-
	Eyes - Moderate irritant	Rabbit	-	-	-
	Skin - Moderate irritant	Rabbit	-	-	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 UI	-
	Skin - Severe irritant	Rabbit	-	24 hours 2 mg	-

Conclusion/Summary

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

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

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

Sensitization

Product/ingredient name	Route of exposure	Species	Result
4,4'-(1-methylethylidene) bisphenol polymer with (chloromethyl)oxirane	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.

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)

Section 11. Toxicological information

Name	Classification	Route of exposure	Target organs
Iron oxide	Category 3	-	Respiratory tract irritation
Ethanol	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Classification	Route of exposure	Target organs
Iron oxide	Category 1	-	-
Ethanol	Category 2	-	-

Aspiration hazard

Not available.

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** : No known significant effects or critical hazards.
- Reproductive toxicity** : May damage fertility or the unborn child.

Additional information

Sanding and grinding dusts may be harmful if inhaled. Trimethoxysilanes are capable of forming methanol if hydrolyzed or ingested. If swallowed, methanol may be harmful or fatal or cause blindness.

Chemical name	Identifiers	GHS Classification
4,4'-Isopropylidenedicyclohexanol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	CAS: 30583-72-3	SKIN SENSITIZATION - Category 1B
4,4'-(1-methylethylidene)bisphenol polymer with (chloromethyl)oxirane	EC: 500-070-7 CAS: 25068-38-6	AQUATIC HAZARD (LONG-TERM) - Category 3 SKIN IRRITATION - Category 2
[3-(2,3-epoxypropoxy)propyl] trimethoxysilane	EC: 500-033-5	EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 2 SERIOUS EYE DAMAGE - Category 1
1,6-Hexanediol, reaction products with epichlorohydrin	CAS: 2530-83-8 EC: 219-784-2 CAS: 933999-84-9	AQUATIC HAZARD (LONG-TERM) - Category 3 SKIN IRRITATION - Category 2
Iron oxide	EC: 618-939-5 CAS: 1309-37-1 EC: 215-168-2	EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1B TOXIC TO REPRODUCTION - Category 1B AQUATIC HAZARD (LONG-TERM) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY

Section 11. Toxicological information

Benzyl alcohol	CAS: 100-51-6 EC: 202-859-9	(REPEATED EXPOSURE) - Category 1 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 3 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 TOXIC TO REPRODUCTION - Category 2 FLAMMABLE LIQUIDS - Category 2 EYE IRRITATION - Category 2A CARCINOGENICITY - Category 1A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Ethanol	CAS: 64-17-5 EC: 200-578-6	

Section 12. Ecological information

A. Ecotoxicity

Product/ingredient name	Result	Species	Exposure
4,4'-Isopropylidenedicyclohexanol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	LC50 11.5 mg/l	Fish	96 hours
4,4'-(1-methylethylidene) bisphenol polymer with (chloromethyl)oxirane	Chronic NOEC 0.3 mg/l	Daphnia	21 days
[3-(2,3-epoxypropoxy) propyl]trimethoxysilane	Acute EC50 255 mg/l Fresh water	Algae	72 hours
1,6-Hexanediol, reaction products with epichlorohydrin	Acute EC50 473 mg/l Acute LC50 55 mg/l NOEC 15 mg/l	Daphnia Fish Daphnia	48 hours 96 hours 21 days
Iron oxide	Acute EC50 47 mg/l Fresh water Acute LC50 30 mg/l Fresh water	Daphnia Fish	48 hours 96 hours
Ethanol	Acute EC50 >100 mg/l Acute EC50 7640 mg/l Fresh water	Daphnia Daphnia - <i>Daphnia magna</i>	48 hours 48 hours

B. Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
4,4'-(1-methylethylidene) bisphenol polymer with (chloromethyl)oxirane	OECD 301F	5 % - 28 days	-	-
[3-(2,3-epoxypropoxy) propyl]trimethoxysilane	-	37 % - Not readily - 28 days	-	-
1,6-Hexanediol, reaction products with epichlorohydrin	OECD Ready Biodegradability - Closed Bottle Test	47 % - Not readily - 28 days	-	-

Section 12. Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
4,4'-(1-methylethylidene) bisphenol polymer with (chloromethyl)oxirane	-	-	Not readily
[3-(2,3-epoxypropoxy) propyl]trimethoxysilane	-	-	Not readily
1,6-Hexanediol, reaction products with epichlorohydrin	-	-	Not readily
Benzyl alcohol	-	-	Readily
Ethanol	-	-	Readily

C. Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
4,4'-(1-methylethylidene) bisphenol polymer with (chloromethyl)oxirane	2.64 to 3.78	31	Low
1,6-Hexanediol, reaction products with epichlorohydrin	0.822	-	Low
Benzyl alcohol	0.87	-	Low
Ethanol	-0.35	-	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. 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
A. UN number	UN1263	UN1263	UN1263
B. UN proper shipping name	PAINT	PAINT	PAINT
C. Transport hazard class(es)	3	3	3
D. Packing group	III	III	III
Environmental hazards	No.	No.	No.
E. Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.

Additional information

UN : None identified.

IMDG : None identified.

IATA : None identified.

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.

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:

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

Section 15. Regulatory information

ISHA Enforcement Regs Annex 11-5 (Harmful factors subject to Work Environment Measurement) : The following components are listed: mica, iron oxide

ISHA Enforcement Regs Annex 22 (Harmful Factors Subject to Special Health Check-up) : The following components are listed: mica, Iron oxide (dust, fume)

Standard of Industrial Safety and Health Annex 12 (Hazardous substances subject to control) : The following components are listed: mica, iron and its compounds

B. Regulation according to Chemicals Control Act

Article 11 (TRI) : The following components are listed: Barium and its compounds, 4,4'-(1-Methylethylidene) bisphenol polymer with (chloromethyl)oxirane, Ethylbenzene

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.

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 : **Class:** Class 4 - Flammable Liquid
Item: 4. Class 2 petroleums - Water-insoluble liquid
Threshold: 1000 L
Danger category: III
Signal word: Contact with sources of ignition prohibited

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** : 2/5/2024
- C. Date of issue/Date of revision** : 4/28/2025
- D. Version** : 3
- 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.