SAFETY DATA SHEET



Date of issue 2/19/2024 (month/day/year)

Version 1.04

Section 1. Chemical product and company identification

A. Product name : SIGMARINE 48 GREY

Product code : 000001191224

Other means of identification

00454277

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

Email Address

: PPG SSC

(680-090)

19, Yeocheon-ro 217beon-gil, Nam-gu,

Ulsan, Korea

Tel: +82-52-210-8222 Korea.MSDS@PPG.COM

Emergency telephone

number:

Section 2. Hazards identification

A. Hazard classification : FLAMMABLE LIQUIDS - Category 3

EYE IRRITATION - Category 2A CARCINOGENICITY - Category 1B

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract

irritation) - Category 3

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

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Section 2. Hazards identification

Hazard statements : H226 - Flammable liquid and vapor.

> H319 - Causes serious eve irritation. H335 - May cause respiratory irritation.

H350 - May cause cancer.

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.

P242 - Use non-sparking tools.

P243 - Take action to prevent static discharges.

P273 - Avoid release to the environment. P261 - Avoid breathing vapor.

P308 + P313 - IF exposed or concerned: Get medical advice or attention. Response

P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell. 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.

P403 + P235 - Keep cool.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional,

national and international regulations.

not result in classification

C. Other hazards which do : Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

CAS number/other identifiers

CAS number : Not applicable.

Chemical name	Common name	Identifiers	%
Naphtha (petroleum), hydrotreated heavy	NAPHTHA (PETROLEUM); HYDROTREATED HEAVY	CAS: 64742-48-9	30 - <40
titanium dioxide	TITANIUM DIOXIDE	CAS: 13463-67-7	1 - <5
Talc , not containing asbestiform fibres carbon black	Talc, non-asbestos form CARBON BLACK	CAS: 14807-96-6 CAS: 1333-86-4	1 - <5 0.1 - <1
nonane	NONANE	CAS: 111-84-2	0.1 - <1
ethanol octane	ETHYL ALCOHOL N-OCTANE		0.1 - <1 0.1 - <1
neodecanoic acid, cobalt salt ethylbenzene		CAS: 27253-31-2	0.1 - <1 0.1 - <1 0.1 - <1

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.

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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.

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

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.

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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. Avoid breathing 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.

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). Avoid exposure obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. 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.

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.

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Section 7. Handling and storage

B. Conditions for safe storage, including any incompatibilities

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: 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
titanium dioxide	Ministry of Employment and Labor
	(Republic of Korea, 1/2020).
	TWA: 10 mg/m ³ 8 hours. Form: total dust
	with less than 1% of free SiO2
Talc , not containing asbestiform fibres	Ministry of Employment and Labor
	(Republic of Korea, 1/2020).
	TWA: 2 mg/m³ 8 hours. Form: fibers
carbon black	Ministry of Employment and Labor
	(Republic of Korea, 1/2020).
	TWA: 3.5 mg/m³ 8 hours. Form: inhalable
	fraction
nonane	Ministry of Employment and Labor
	(Republic of Korea, 1/2020).
	TWA: 200 ppm 8 hours.
ethanol	Ministry of Employment and Labor
	(Republic of Korea, 1/2020).
	TWA: 1000 ppm 8 hours.
octane	Ministry of Employment and Labor
	(Republic of Korea, 1/2020).
	STEL: 375 ppm 15 minutes.
	TWA: 300 ppm 8 hours.
neodecanoic acid, cobalt salt	Ministry of Employment and Labor
	(Republic of Korea, 1/2020). [Cobalt and
	inorganic compounds]
	TWA: 0.02 mg/m³ 8 hours.
ethylbenzene	Ministry of Employment and Labor
	(Republic of Korea, 1/2020).
	STEL: 125 ppm 15 minutes.
	TWA: 100 ppm 8 hours.

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. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

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Section 8. Exposure controls/personal protection

Environmental exposure controls

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: 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 Hand protection

: Chemical splash goggles.

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.

: For prolonged or repeated handling, use the following type of gloves:

Recommended: nitrile rubber

Body protection

Gloves

: 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. 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 : Gray.

B. Odor : Aromatic. [Slight]
C. Odor threshold : Not available.
D. pH : Not applicable.
E. Melting/freezing point : Not available.
F. Boiling point/boiling : >37.78°C (>100°F)

range

G. Flash point : Closed cup: 43°C (109.4°F)

H. Evaporation rate : Not available.

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Section 9. Physical and chemical properties

Flammability (solid, gas) : Not available.

J. Lower and upper explosive (flammable)

limits

: Greatest known range: Lower: 1.4% Upper: 7.6% (Naphtha (petroleum),

Result

hydrotreated heavy)

K. Vapor pressure

	Vapor Pressure at 20°C			Vapor pressure at 50°C		
Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
Naphtha (petroleum), hydrotreated heavy	0.75006 to 2.25018	0.1 to 0.3				

Media L. Solubility(ies)

> cold water Not soluble

: Not available. Solubility in water Vapor density Not available.

0.99 Relative density

Partition coefficient: n-

octanol/water

: Not applicable.

Auto-ignition

temperature

Ingredient name	°C	°F	Method
Naphtha (petroleum), hydrotreated heavy	280 to 470	536 to 878	

Decomposition

temperature

: Not available.

Viscosity R.

S.

: Kinematic (room temperature): >400 mm²/s (>400 cSt)

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

Flow time (ISO 2431) : Not available. **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 metal oxide/oxides

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Section 11. Toxicological information

A. Information on the likely routes of exposure

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: Not available.

Potential acute health effects

Inhalation : May cause respiratory irritation.

Ingestion : No known significant effects or critical hazards.

Skin contact: Defatting to the skin. May cause skin dryness and irritation.

Eye contact : Causes serious eye irritation.

Over-exposure signs/symptoms

Inhalation : Adverse symptoms may include the following:

respiratory tract irritation

coughing

Ingestion : No specific data.

Skin contact: Adverse symptoms may include the following:

irritation dryness cracking

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
Naphtha (petroleum), hydrotreated heavy	LD50 Dermal	Rabbit	>5000 mg/kg	-
•	LD50 Oral	Rat	>6 g/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	-
carbon black	LD50 Oral	Rat	>10 g/kg	-
nonane	LC50 Inhalation Gas.	Rat	3200 ppm	4 hours
	LC50 Inhalation Vapor	Rat	16790 mg/m ³	4 hours
ethanol	LC50 Inhalation Vapor	Rat	124700 mg/m ³	4 hours
	LD50 Dermal	Rat	17100 mg/kg	-
	LD50 Oral	Rat	7 g/kg	-
octane	LC50 Inhalation Gas.	Rat	25260 ppm	4 hours
	LC50 Inhalation Vapor	Rat	118000 mg/m ³	4 hours
neodecanoic acid, cobalt salt	LD50 Oral	Rat -	1098 mg/kg	-
		Female		
ethylbenzene	LC50 Inhalation Vapor	Rat	17.8 mg/l	4 hours
	LD50 Dermal	Rabbit	17.8 g/kg	-
	LD50 Oral	Rat	3.5 g/kg	-

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.

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Section 11. Toxicological information

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

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

Sensitization

Product/ingredient name	Route of exposure	Species	Result
neodecanoic acid, cobalt salt	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)

Name	Classification	Route of exposure	Target organs
Naphtha (petroleum), hydrotreated heavy	Category 3		Respiratory tract irritation
Talc , not containing asbestiform fibres	Category 3		Respiratory tract irritation
nonane octane	Category 3 Category 3		Narcotic effects Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Classification	Route of exposure	Target organs
neodecanoic acid, cobalt salt	Category 1	oral	gastrointestinal tract

Aspiration hazard

Name	Result
Naphtha (petroleum), hydrotreated heavy	ASPIRATION HAZARD - Category 1
nonane	ASPIRATION HAZARD - Category 1
octane	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1

Potential chronic health effects

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Section 11. Toxicological information

General : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or

dermatitis.

Carcinogenicity: May cause 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

Prolonged or repeated contact may dry skin and cause irritation. Sanding and grinding dusts may be harmful if inhaled. 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. Avoid contact with skin and clothing.

titanium dioxide Talc , not containing asbestiform fibres carbon black nonane CAS: 13463-67-7 CARCIN CAS: 14807-96-6 SPECIF EXPOS: Categor CAS: 1333-86-4 CAS: 111-84-2 CAS: 111-84-2 FLAMM. ACUTE SKIN IR SPECIF EXPOS: ASPIRA AQUAT AQUAT AQUAT CAS: 111-65-9 CAS: 111-65-9 CAS: 111-65-9 CAS: 27253-31-2 EYE IRF SPECIF EXPOS: CARCIN CAS: 13463-67-7 CARCIN CAS: 14807-96-6 SPECIF EXPOS: ASPIRA AQUAT AQU	HS Classification
titanium dioxide Talc , not containing asbestiform fibres CAS: 13463-67-7 CAS: 14807-96-6 SPECIF EXPOSI Categor CARCIN Nonane CAS: 1333-86-4 CAS: 111-84-2 CAS: 111-84-2 Ethanol CAS: 64-17-5 CAS: 14807-96-6 CARCIN SPECIF EXPOSI CARCIN ACUTE SKIN IR SPECIF EXPOSI ASPIRA AQUAT AQUAT CARCIN CAS: 111-65-9 CARCIN CAS: 111-65-9 CAS: 111-65-9 CAS: 111-65-9 CARCIN CAS: 111-65-9 CARCIN CAS: 111-65-9 CARCIN CAS: 111-65-9 CAS: 111-65-9 CAS: 111-65-9 CARCIN CAS: 111-65-9 CARCIN CAS: 111-65-9 CARCIN CAS: 111-65-9	AMMABLE LIQUIDS - Category 4 E IRRITATION - Category 2A ECIFIC TARGET ORGAN TOXICITY (SINGLE POSURE) (Respiratory tract irritation) - egory 3 PIRATION HAZARD - Category 1
Talc , not containing asbestiform fibres CAS: 14807-96-6 SPECIF EXPOSI Categor CARCIN CAS: 111-84-2 CAS: 111-84-2 Ethanol CAS: 64-17-5 CAS: 64-17-5 CAS: 111-65-9 CAS: 111-65-9 CAS: 111-65-9 CAS: 111-65-9 CAS: 27253-31-2 Ethylbenzene CAS: 100-41-4 SPECIF EXPOSI ASPIRA AQUAT CAS: 27253-31-2 CAS: 27253-31-2 CAS: 100-41-4 SPECIF EXPOSI ASPIRA AQUAT AQUAT AQUAT CAS: 27253-31-2 CAS: 100-41-4 SPECIF (REPEA AQUAT CAS: 100-41-4 Ethylbenzene CAS: 100-41-4	RCINOGENICITY - Category 2
carbon black nonane CAS: 1333-86-4 CAS: 111-84-2 FLAMM. ACUTE SKIN IR SPECIF EXPOS: ASPIRA AQUAT AQUAT CAS: 64-17-5 CAS: 64-17-5 FLAMM. SKIN IR SPECIF EXPOS: ASPIRA AQUAT CAS: 111-65-9 FLAMM. SKIN IR SPECIF EXPOS: ASPIRA AQUAT AQUAT AQUAT AQUAT AQUAT AQUAT AQUAT AQUAT CAS: 27253-31-2 CAS: 27253-31-2 Ethylbenzene CAS: 100-41-4 ETAMM. ACUTE CARCIN ACUTE CARCIN	ECIFIC TARGET ORGAN TOXICITY (SINGLE POSURE) (Respiratory tract irritation) -
nonane CAS: 111-84-2 FLAMM. ACUTE SKIN IR SPECIF EXPOS. ASPIRA AQUAT AQUAT CAS: 64-17-5 FLAMM. EYE IRF CARCIN CARCIN CARCIN SKIN IR SPECIF EXPOS. ASPIRA AQUAT AQUAT CAS: 27253-31-2 CAS: 27253-31-2 Ethylbenzene CAS: 100-41-4 FLAMM. ACUTE CARCIN CARCIN CARCIN SPECIF FLAMM. ACUTE CARCIN CARC	RCINOGENICITY - Category 2
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ethanol CAS: 64-17-5 FLAMM. EYE IRF. CARCIN CARCIN SKIN IR SPECIF EXPOSI ASPIRA AQUAT AQUAT AQUAT AQUAT ACUTE SKIN SE CARCIN SPECIF (REPEA AQUAT AQUAT CAS: 27253-31-2 Ethylbenzene CAS: 100-41-4 CAS: 100-41-4 CAS: 100-41-4	UTE TOXICITY (inhalation) - Category 4 N IRRITATION - Category 2 ECIFIC TARGET ORGAN TOXICITY (SINGLE POSURE) (Narcotic effects) - Category 3 PIRATION HAZARD - Category 1 UATIC HAZARD (ACUTE) - Category 1 UATIC HAZARD (LONG-TERM) - Category 1
octane CAS: 111-65-9 FLAMM. SKIN IR SPECIF EXPOSI ASPIRA AQUAT AQUAT AQUAT ACUTE SKIN SE CARCIN SPECIF (REPEA AQUAT SPECIF (REPEA AQUAT SPECIF CARCIN SPECIF CARCIN SPECIF (REPEA AQUAT SPECIF CARCIN SPECIF C	AMMABLE LIQUIDS - Category 2 E IRRITATION - Category 2A RCINOGENICITY - Category 2
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ethylbenzene CAS: 100-41-4 FLAMM. ACUTE CARCIN	UTE TOXICITY (oral) - Category 4 N SENSITIZATION - Category 1B RCINOGENICITY - Category 1B ECIFIC TARGET ORGAN TOXICITY EPEATED EXPOSURE) - Category 1 UATIC HAZARD (LONG-TERM) - Category 3
ASPIRA	AMMABLE LIQUIDS - Category 2 UTE TOXICITY (inhalation) - Category 4 RCINOGENICITY - Category 2 PIRATION HAZARD - Category 1

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Section 11. Toxicological information

AQUATIC HAZARD (LONG-TERM) - Category 3

Section 12. Ecological information

A. **Ecotoxicity**

Product/ingredient name	Result	Species	Exposure
titanium dioxide	Acute LC50 >100 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
ethanol	Acute EC50 7640 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
ethylbenzene	Acute EC50 1.8 mg/l Fresh water	Daphnia	48 hours
	Chronic NOEC 1 mg/l Fresh water	Daphnia - Ceriodaphnia dubia	-

B. Persistence and degradability

Product/ingredient name	Test	Result		Dose		Inoculum
ethylbenzene	-	79 % - Readily - 10 days		-		-
Product/ingredient name	Aquatic half-life		Photolysis		Biodeg	radability
ethanol ethylbenzene	-		-		Readily Readily	

C. Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
nonane	5.65	-	High
ethanol	-0.35	-	Low
octane	5.18	-	High
ethylbenzene	3.6	79.43	Low

D. Mobility in soil

Soil/water partition coefficient (Koc)

: 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.

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Section 13. Disposal considerations

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 : This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according to

2.3.2.5.1.

IMDG: This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according to

2.3.2.5.

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 : Not applicable.

to IMO instruments

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.

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Section 15. Regulatory information

Article 2 of Youth Protection

Act on Substances Hazardous

: It is not allowed to sell to persons under the age of 19.

to Youth

Exposure Limits of Chemical Substances and Physical Factors

carbon black

ethanol

ethylbenzene

Annex 19 (Exposure standards established

for harmful factors)

ISHA Enforcement Regs

Annex 21 (Harmful factors subject to Work

Environment Measurement)

Annex 22 (Harmful Factors Subject to Special Health Check-

up)

Standard of Industrial Safety and Health

Annex 12 (Hazardous substances subject to

control)

The following components have an OEL:

titanium dioxide

Talc, not containing asbestiform fibres

nonane

octane

neodecanoic acid, cobalt salt

ISHA Enforcement Regs : The following components are listed: cobalt and its inorganic compounds

: The following components are listed: titanium dioxide, talc / soapstone

ISHA Enforcement Regs: None of the components are listed.

B. Regulation according to Chemicals Control Act

Article 11 (TRI) : The following components are listed: Cobalt and its compounds, Ethylbenzene

: None of the components are listed.

: None of the components are listed.

: None of the components are listed.

: The following components are listed: titanium dioxide

Article 18 Prohibited (K-Reach Article 27)

Article 19 Subject to authorization (K-Reach

Article 25)

Article 20 Restricted (K-

Reach Article 27)

Chemicals (K-Reach

Article 20)

Article 20 Toxic : Not applicable

Korea inventory : At least one component is not listed. **Article 39 (Accident** : None of the components are listed.

Precaution Chemicals)

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Section 15. Regulatory information

C. <u>Dangerous Materials</u> <u>Safety Management Act</u> : 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. <u>Wastes regulation</u>: 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. Date of issue/Date of

revision

2/19/2024

C. Version : 1.04
Prepared by : EHS

D. 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.

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