SAFETY DATA SHEET

Safety Data Sheet according to GB/T 16483-2008 and GB/T 17519-2013



Date of issue/Date of revision 1 March 2022

Version 11.02

Section 1. Chemical product and company identification			
Product code	: 00322208		
Product name	: SIGMADUR ONE ORANGE 3149		
Product name	: SIGMADUR ONE ORANGE 3149		
Product type	: Liquid.		
Relevant identified uses of	f the substance or mixture and uses advised against		
Product use	: Professional applications, Used by spraying.		
Use of the substance/ mixture	: Coating.		
Uses advised against	: Not applicable.		
Supplier's details	: PPG Coatings (Kunshan) Co., Ltd 53 Jinyang Road, Lujia Town, 215331 Kunshan City, Jiangsu Province, P.R. China Tel: 86 512 57678859 Fax: 86 512 57678857		
Emergency telephone number (with hours of operation)	: 00 86 532 83889090		

Section 2. Hazards identification

Classification of the substance or mixture according to GB 13690-2009 and GB 30000-2013

Emergency overview Liquid. Orange. Aromatic. Flammable liquid and vapor. May cause an allergic skin reaction. Causes serious eye irritation. May cause respiratory irritation. May cause genetic defects. May cause damage to organs through prolonged or repeated exposure. (central nervous system (CNS)) Harmful to aquatic life. Harmful to aquatic life with long lasting effects. Prolonged or repeated contact may dry skin and cause irritation.

IF exposed or concerned: Get medical advice or attention. IF INHALED: Call a POISON CENTER or doctor if you feel unwell. If skin irritation or rash occurs: Get medical advice or attention. If eye irritation persists: Get medical advice or attention.

See Section 12 for environmental precautions.

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Section 2. Hazard	Is identification
Classification of the substance or mixture	 FLAMMABLE LIQUIDS - Category 3 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 GERM CELL MUTAGENICITY - Category 1B SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 AQUATIC HAZARD (ACUTE) - Category 3 AQUATIC HAZARD (LONG-TERM) - Category 3 Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 44.7%
GHS label elements	
Hazard pictograms	
Signal word	: Danger
Hazard statements	 Flammable liquid and vapor. May cause an allergic skin reaction. Causes serious eye irritation. May cause respiratory irritation. May cause genetic defects. May cause damage to organs through prolonged or repeated exposure. (central nervous system (CNS)) Harmful to aquatic life. Harmful to aquatic life with long lasting effects.
Precautionary statements	
Prevention	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Do not breathe vapor. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.
Response	: IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER of doctor if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.
Suitable extinguishing media	: Use dry chemical, CO ₂ , water spray (fog) or foam.
Storage	: Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.
Disposal	 Dispose of contents and container in accordance with all local, regional, national and international regulations.

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Section 2. Hazards identification

Physical and chemical	: Flammable liquid and vapor.
hazards	

Health hazards

: May cause an allergic skin reaction. Causes serious eye irritation. May cause respiratory irritation. May cause genetic defects. Prolonged or repeated contact may dry skin and cause irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing
Skin contact	: Adverse symptoms may include the following: irritation redness dryness cracking
Ingestion	: No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure Short term exposure **Potential immediate** : Not available. effects Potential delayed effects : Not available. Long term exposure **Potential immediate** : Not available. effects Potential delayed effects : Not available. **Environmental hazards** : Harmful to aquatic life. Harmful to aquatic life with long lasting effects. Other hazards which do not : Prolonged or repeated contact may dry skin and cause irritation. result in classification

Section 3. Composition/information on ingredients

Substance/mixture	:	Mixture

CAS number/other identifiers		
CAS number	:	Not applicable.

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Section 3. Composition/information on ingredients

Ingredient name	%	CAS number
Naphtha (petroleum), hydrotreated heavy	10 - <25	64742-48-9
barium sulfate	1 - <10	7727-43-7
Solvent naphtha (petroleum), medium aliph.	1 - <10	64742-88-7
2-ethylhexanoic acid	1 - <10	149-57-5
Solvent naphtha (petroleum), heavy arom.	1 - <10	64742-94-5
1-methoxy-2-propanol	1 - <10	107-98-2
2-ethylhexanoic acid, zirconium salt	0.1 - <1	22464-99-9
calcium bis(2-ethylhexanoate)	0.1 - <1	136-51-6
cobalt bis(2-ethylhexanoate)	0.1 - <1	136-52-7
nonane and its isomers	0.1 - <1	111-84-2
ligroine	0.1 - <1	8032-32-4

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. SUB codes represent substances without registered CAS Numbers.

Section 4. First aid measures

Description of necess	ary first aid measures
Eye contact	 Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
Inhalation	: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
Skin contact	 Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
Ingestion	 If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health	n effects
Eye contact	: Causes serious eye irritation.
Inhalation	: May cause respiratory irritation.
Skin contact	: Defatting to the skin. May cause skin dryness and irritation. May cause an allergic skin reaction.
Ingestion	: No known significant effects or critical hazards.
Over-exposure signs	/symptoms
Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing

Section 4. First aid measures

Skin contact	: Adverse symptoms may include the following: irritation redness dryness
Ingestion	cracking : No specific data.
Indication of immediate med Notes to physician	 In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	: No specific treatment.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

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Extinguishing media	
Suitable extinguishing media	: Use dry chemical, CO ₂ , water spray (fog) or foam.
Unsuitable extinguishing media	: Do not use water jet.
Specific hazards arising from the chemical	: Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon oxides nitrogen oxides sulfur oxides metal oxide/oxides
Special protective actions for fire-fighters	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures		
For non-emergency personnel	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. 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.
For emergency responders	:	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions	:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

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

Precautions for safe ÷. 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 handling 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. 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.

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Section 7. Handling and storage

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.

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

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
barium sulfate	GBZ 2.1 (China, 8/2019).
	PC-TWA: 10 mg/m³, (as Ba) 8 hours.
Solvent naphtha (petroleum), medium aliph.	ACGIH TLV (United States).
	TWA: 400 ppm
2-ethylhexanoic acid	ACGIH TLV (United States, 1/2021).
	TWA: 5 mg/m ³ 8 hours. Form: Inhalable
	fraction and vapor
1-methoxy-2-propanol	ACGIH TLV (United States, 1/2021).
	STEL: 369 mg/m ³ 15 minutes.
	STEL: 100 ppm 15 minutes.
	TWA: 184 mg/m ³ 8 hours.
	TWA: 50 ppm 8 hours.
2-ethylhexanoic acid, zirconium salt	GBZ 2.1 (China, 8/2019).
	PC-STEL: 10 mg/m ³ , (as Zr) 15 minutes.
	PC-TWA: 5 mg/m ³ , (as Zr) 8 hours.
cobalt bis(2-ethylhexanoate)	ACGIH TLV (United States, 1/2021). Skin
	sensitizer. Inhalation sensitizer.
	TWA: 0.02 mg/m³, (as Co) 8 hours.
nonane and its isomers	GBZ 2.1 (China, 8/2019).
	PC-TWA: 500 mg/m ³ 8 hours.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. 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.

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Section 8. Exposure controls/personal protection

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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.
Individual protection measur	res	
Hygiene measures	:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye protection	1	Chemical splash goggles.
Skin protection		
Hand protection	:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Gloves		butyl rubber
Body protection	:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. 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.
Other skin protection	:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	:	Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Section 9. Physical and chemical properties

<u>Appearance</u>	
Physical state	: Liquid.
Color	: Orange.
Odor	: Aromatic.
Boiling point	: >37.78°C (>100°F)
Flash point	: Closed cup: 41°C (105.8°F)

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Section 9. Physical and chemical properties

Lower and upper explosive (flammable) limits	: Greatest known range: Lower: 1.48% Upper: 13.74% (1-methoxy-2-propanol)
Relative density	: 1.06
Solubility	: Insoluble in the following materials: cold water.
Viscosity	: Kinematic (40°C): >21 mm²/s

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: When exposed to high temperatures may produce hazardous decomposition products.
Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
Hazardous decomposition products	: Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides sulfur oxides metal oxide/oxides

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

heavy arom. and mists LD50 Oral Rat >5 g/kg -	oduct/ingredient name	Result	Species	Dose	Exposure
barium sulfateLD50 Dermal LD50 OralRat>2000 mg/kg-Solvent naphtha (petroleum), medium aliph.LD50 OralRat>5000 mg/kg-2-ethylhexanoic acidLD50 OralRat>5000 mg/kg-2-ethylhexanoic acidLD50 OralRat1.26 g/kg-Solvent naphtha (petroleum), heavy arom.LC50 Inhalation Dusts 		LD50 Dermal	Rabbit	>5000 mg/kg	-
Solvent naphtha (petroleum), medium aliph.LD50 Oral LD50 DermalRat>5000 mg/kg-2-ethylhexanoic acidLD50 Oral LD50 DermalRat>5000 mg/kg-2-ethylhexanoic acidLD50 Oral LD50 OralRat>5000 mg/kg-Solvent naphtha (petroleum), heavy arom.LC50 Inhalation Dusts and mists LD50 OralRat>5.2 mg/l4 hou A hou1-methoxy-2-propanolLC50 Inhalation Vapor LD50 DermalRat>5.2 g/kg-2-ethylhexanoic acid, zirconium saltLD50 OralRat5.2 g/kg-LD50 OralRat5.2 g/kgLD50 OralRat5.2 g/kg-2-ethylhexanoic acid, zirconium saltLD50 OralRat5.2 g/kg-LD50 OralRatSolventLD50 OralR		LD50 Oral	Rat	>6 g/kg	-
Solvent naphtha (petroleum), medium aliph.LD50 DermalRabbit>3000 mg/kg-2-ethylhexanoic acidLD50 OralRat>5000 mg/kg-2-ethylhexanoic acidLD50 DermalRabbit1.26 g/kg-2-ethylhexanoic acidLD50 OralRat1600 mg/kg-Solvent naphtha (petroleum), heavy arom.LC50 Inhalation Dusts and mistsRat>5.2 mg/l4 hou1-methoxy-2-propanolLC50 Inhalation Vapor LD50 DermalRat>5 g/kg-2-ethylhexanoic acid, zirconium saltLD50 OralRat5.2 g/kg-LD50 OralRat5.2 g/kg2-ethylhexanoic acid, zirconium saltLD50 OralRat5.2 g/kg-LD50 OralRatSolvent5.2 g/kg2-ethylhexanoic acid, zirconium saltLD50 OralRat5.2 g/kg-LD50 OralRatSolventLD50 OralRatSolventLD50 OralRatSolventLD50 OralRatSolventLD50 OralRatSolventLD50 OralRatSolventLD50 OralRatSolventLD50 OralRatSolventLD50 OralRatSolventLD50 OralRatSolvent- <td< td=""><td>rium sulfate</td><td>LD50 Dermal</td><td>Rat</td><td>>2000 mg/kg</td><td>-</td></td<>	rium sulfate	LD50 Dermal	Rat	>2000 mg/kg	-
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Solvent naphtha (petroleum), heavy arom.LC50 Inhalation Dusts and mists LD50 OralRat>5.2 mg/l4 hor1-methoxy-2-propanolLC50 Inhalation Vapor LD50 Dermal LD50 OralRat>5 g/kg-2-ethylhexanoic acid, zirconium saltLD50 Oral LD50 OralRat5.2 g/kg-LD50 Oral LD50 Dermal LD50 Dermal LD50 DermalRat5.2 g/kg-2-ethylhexanoic acid, zirconium saltLD50 Oral LD50 OralRat>5 g/kg-	ethylhexanoic acid	LD50 Dermal	Rabbit	1.26 g/kg	-
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2-ethylhexanoic acid, zirconium salt LD50 Oral LD50 Dermal Rat 5.2 g/kg - LD50 Dermal - S g/kg -			Rabbit		-
2-ethylhexanoic acid, zirconium LD50 Dermal Rabbit >5 g/kg - salt LD50 Oral Rat >5 g/kg -	1	LD50 Oral	Rat		-
5 5	3 ·	LD50 Dermal			-
	1	LD50 Oral	Rat	>5 g/kg	-
	balt bis(2-ethylhexanoate)	LD50 Dermal	Rabbit		-
LD50 Oral Rat 3129 mg/kg -	,	LD50 Oral	Rat		-

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Section 11. Toxicological information

nonane and its isomers	LC50 Inhalation Gas.	Rat	3200 ppm	4 hours
	LC50 Inhalation Vapor	Rat	16790 mg/m³	4 hours
ligroine	LC50 Inhalation Gas.	Rat	3400 ppm	4 hours

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Naphtha (petroleum), hydrotreated heavy	Category 3	-	Respiratory tract irritation
Solvent naphtha (petroleum), medium aliph.	Category 3	-	Narcotic effects
Solvent naphtha (petroleum), heavy arom.	Category 3	-	Narcotic effects
1-methoxy-2-propanol	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Name		Route of exposure	Target organs
Solvent naphtha (petroleum), medium aliph.	Category 1		central nervous system (CNS)

Aspiration hazard

Name	Result
Naphtha (petroleum), hydrotreated heavy	ASPIRATION HAZARD - Category 1
Solvent naphtha (petroleum), medium aliph.	ASPIRATION HAZARD - Category 1
Solvent naphtha (petroleum), heavy arom.	ASPIRATION HAZARD - Category 1
ligroine	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

: Not available.

Potential acute health effects Eye contact : Causes serious eye irritation. Inhalation : May cause respiratory irritation. Skin contact : Defatting to the skin. May cause skin dryness and irritation. May cause an allergic skin reaction. Ingestion : No known significant effects or critical hazards.

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Section 11. Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	:	Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	:	Adverse symptoms may include the following: respiratory tract irritation coughing
Skin contact	:	Adverse symptoms may include the following: irritation redness dryness cracking
Ingestion	:	No specific data.
Delayed and immediate effect	<u>cts</u>	and also chronic effects from short and long term exposure
Short term exposure		
Potential immediate effects	:	Not available.
Potential delayed effects	1	Not available.
<u>Long term exposure</u>		
Potential immediate effects	:	Not available.
Potential delayed effects	1	Not available.
Potential chronic health eff	ect	<u>s</u>
General	:	May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	:	No known significant effects or critical hazards.
Mutagenicity	:	May cause genetic defects.

Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
SIGMADUR ONE ORANGE 3149	61378.8	8065	N/A	N/A	N/A
barium sulfate	N/A	2500	N/A	N/A	N/A
Solvent naphtha (petroleum), medium aliph.	N/A	2500	N/A	N/A	N/A
2-ethylhexanoic acid	1600	1260	N/A	N/A	N/A
1-methoxy-2-propanol	5200	13000	N/A	N/A	N/A
cobalt bis(2-ethylhexanoate)	3129	N/A	N/A	N/A	N/A
nonane and its isomers	N/A	N/A	3200	16.79	N/A
ligroine	N/A	N/A	3400	N/A	N/A

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Section 11. Toxicological information

Other 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.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Solvent naphtha (petroleum), heavy arom.	NOEL 0.48 mg/l Fresh water	Daphnia	21 days
1-methoxy-2-propanol	Acute LC50 23300 mg/l Acute LC50 >4500 mg/l Fresh water	Daphnia Fish	48 hours 96 hours
2-ethylhexanoic acid, zirconium salt	Acute LC50 >100 mg/l	Fish	96 hours

Persistence/degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
2-ethylhexanoic acid Solvent naphtha (petroleum), heavy arom.	2.7 2.8 to 6.5	-	low high
1-methoxy-2-propanol nonane and its isomers	<1 5.65	-	low high

Mobility in soil

Soil/water partition	: Not available.
coefficient (Koc)	

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

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty

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Castion 42 Dispacel consideratio

Section 13. Disposal considerations

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

	China	UN	IMDG	ΙΑΤΑ
UN number	UN1263	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT	PAINT
Transport hazard class(es)	3	3	3	3
Packing group	Ш	Ш	111	111
Environmental hazards	No.	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.	Not applicable.

Additional information

CN	: None identified.
UN	: None identified.
IMDG	: None identified.
ΙΑΤΑ	: None identified.

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

Transport in bulk according : Not applicable. to IMO instruments

Section 15. Regulatory information

China inventory (IECSC)	: All components are listed or exempted.
References	 Production Safety Law of the People's Republic of China Code of Occupational Disease Prevention of the People's Republic of China Environmental Protection Law of the People's Republic of China Fire Control Law of the People's Republic of China Regulations on the Control over Safety of Dangerous Chemicals Occupational exposure limits for hazardous agents in the workplace chemical hazardous agents (GBZ2.1) General rule for classification and hazard communication of chemicals (GB13690) Safety data sheet for chemical products - Content and order of sections (GB/ T16483) Guidance on the compilation of safety data sheet for chemical products (GB/

Section 15. Regulatory information

T17519)

General rule for preparation of precautionary label for chemicals (GB15258) Safety rules for classification, precautionary labeling and precautionary statements of chemicals (GB30000.2-29)

Section 16. Other information

<u>History</u>	
Date of issue/Date of revision	: 1 March 2022
Date of previous issue	: 11/8/2021
Version	: 11.02
	EHS
Key to abbreviations	 ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail UN = United Nations

V Indicates information that has changed from previously issued version.

Notice to reader

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.