SAFETY DATA SHEET

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



Date of issue/Date of revision 16 October 2023

Version 2.04

Section 1. Chemical product and company identification		
Product code	: 00395640	
Product name	: SIGMADUR 2800 BASE RAL 2002	
Product name	: SIGMADUR 2800 BASE RAL 2002	
Product type	: Liquid.	
Relevant identified uses o	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. Characteristic. Flammable liquid and vapor. May cause drowsiness or dizziness. Harmful to aquatic life. Harmful to aquatic life with long lasting effects. Prolonged or repeated contact may dry skin and cause irritation.

IF INHALED: Call a POISON CENTER or doctor if you feel unwell. **See Section 12 for environmental precautions.**

Classification of the substance or mixture	 FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 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: 62.5%

Section 2. Hazards identification

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GHS label elements	<u>s</u>
Hazard pictogram	S



Signal word	: Warning
Hazard statements	: Flammable liquid and vapor. May cause drowsiness or dizziness. Harmful to aquatic life. Harmful to aquatic life with long lasting effects.
Precautionary statements	
Prevention	: 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. Avoid breathing vapor.
Response	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
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.
Physical and chemical hazards	: Flammable liquid and vapor.
Health hazards	: May cause drowsiness or dizziness. Prolonged or repeated contact may dry skin and cause irritation.
Symptoms related to the ph	sysical, chemical and toxicological characteristics
Eye contact	: No specific data.
Inhalation	: Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
Skin contact	: Adverse symptoms may include the following: irritation dryness cracking
Ingestion	: No specific data.
Delayed and immediate effe	ects and also chronic effects from short and long term exposure

Short term exposure

Product name SIGMADUR 2800 BASE RAL 2002

Section 2. Hazards identification

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

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

CAS number/other identifiers

CAS number : Not applicable.		
Ingredient name	%	CAS number
p -butyl acetate	10 - <25	123-86-4
barium sulfate	10 - <25	7727-43-7
2-methoxy-1-methylethyl acetate	10 - <25	108-65-6
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	0.1 - <1	41556-26-7

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 necessary 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 effects

Eye contact	: No known significant effects or critical hazards.
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Product name SIGMADUR 2800 BASE RAL 2002

Section 4. First aid measures

Inhalation	: Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
Skin contact	: Defatting to the skin. May cause skin dryness and irritation.
Ingestion	: Can cause central nervous system (CNS) depression.
Over-exposure signs/symp	<u>ptoms</u>
Eye contact	: No specific data.
Inhalation	: Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
Skin contact	: Adverse symptoms may include the following: irritation dryness cracking
Ingestion	: No specific data.
Indication of immediate med	dical attention and special treatment needed, if necessary
Notes to physician	: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	: No specific treatment.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

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 halogenated compounds metal oxide/oxides

Product name SIGMADUR 2800 BASE RAL 2002

Section 5. Fire-fighting measures

	The fluoropolymer resins used in this coating begin to decompose, very slowly, at temperatures above 625°F (330°C). Thermal decomposition is more rapid at temperatures above 750°F (400°C). Above 800°F (425°C) fluoropolymer resins give off small amounts of tetrafluoroethylene / hexafluoropropylene / perisofluorobutylene / carbonyl fluoride / hydrogen fluoride. These are toxic and if inhaled, in sufficient quantities, may be harmful. The actual decomposition products depend on temperature and the amount of oxygen.
Special protective actions for fire-fighters	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protect	tiv	e 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".
		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 co	ont	ainment 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.

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Section 7. Handling and storage

Precautions for safe handling	-	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. 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.
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
p -butyl acetate		GBZ 2.1 (China, 8/2019). PC-STEL: 300 mg/m ³ 15 minutes. PC-TWA: 200 mg/m ³ 8 hours.
barium sulfate		GBZ 2.1 (China, 8/2019). PC-TWA: 10 mg/m³, (as Ba) 8 hours.
Recommended monitoring procedures		priate monitoring standards. Reference to ethods for the determination of hazardous
Appropriate engineering controls	ventilation or other engineering cont contaminants below any recommend	Use process enclosures, local exhaust rols to keep worker exposure to airborne ded or statutory limits. The engineering controls t concentrations below any lower explosive on equipment.
Environmental exposure controls	they comply with the requirements o	rocess equipment should be checked to ensure f environmental protection legislation. In some gineering modifications to the process ce emissions to acceptable levels.

Individual protection measures

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Section 8. Exposure controls/personal protection

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.
Eye protection	: Safety glasses with side shields.
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	: For prolonged or repeated handling, use the following type of gloves:
	Recommended: neoprene, natural rubber (latex), butyl rubber May be used: nitrile rubber, Chloroprene
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

Appearance	
Physical state	Liquid.
Odor	Characteristic.
Boiling point	>37.78°C (>100°F)
Flash point	Closed cup: 31°C (87.8°F)
Lower and upper explosive (flammable) limits	Greatest known range: Lower: 1.4% Upper: 7.6% (n-butyl acetate)
Relative density	1.31
Solubility(ies)	Media Result
oolubility(los)	cold water Not soluble
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 halogenated compounds metal oxide/oxides The fluoropolymer resins used in this coating begin to decompose, very slowly, at temperatures above 625°F (330°C). Thermal decomposition is more rapid at temperatures above 750°F (400°C). Above 800°F (425°C) fluoropolymer resins give off small amounts of tetrafluoroethylene / hexafluoropropylene / perisofluorobutylene / carbonyl fluoride / hydrogen fluoride. These are toxic and if inhaled, in sufficient quantities, may be harmful. The actual decomposition products depend on temperatures.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
<mark>p-</mark> butyl acetate	LC50 Inhalation Vapor	Rat	>21.1 mg/l	4 hours
-	LC50 Inhalation Vapor	Rat	2000 ppm	4 hours
	LD50 Dermal	Rabbit	>17600 mg/kg	-
	LD50 Oral	Rat	10.768 g/kg	-
barium sulfate	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
2-methoxy-1-methylethyl acetate	LC50 Inhalation Vapor	Rat	30 mg/l	4 hours
	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	6190 mg/kg	-
bis(1,2,2,6,6-pentamethyl- 4-piperidyl) sebacate	LD50 Oral	Rat	3.125 g/kg	-

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Section 11. Toxicological information

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name		Route of exposure	Target organs
	Category 3 Category 3		Narcotic effects Narcotic effects

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely	: Not available.
routes of exposure	

Potential acute health effects

Eye contact	: No known significant effects or critical hazards.
Inhalation	 Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
Skin contact	: Defatting to the skin. May cause skin dryness and irritation.
Ingestion	: Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: No specific data.
Inhalation	: Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
Skin contact	: Adverse symptoms may include the following: irritation dryness cracking
Ingestion	: No specific data.

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

Short term exposurePotential immediate: Not available.effects

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Section 11. Toxicological information

Potential delayed effects	: Not available.
Long term exposure	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
Potential chronic health eff	ects
General	: Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/ or dermatitis.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
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)
GMADUR 2800 BASE RAL 2002	N/A	6511.5	N/A	N/A	N/A
n-butyl acetate	10768	N/A	N/A	N/A	N/A
barium sulfate	N/A	2500	N/A	N/A	N/A
2-methoxy-1-methylethyl acetate	6190	N/A	N/A	30	N/A
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	3125	N/A	N/A	N/A	N/A

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
	Acute LC50 18 mg/l	Fish	96 hours
	Acute LC50 134 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours

Persistence/degradability

Product/ingredient name	Test	Result	Dose	Inoculum
-butyl acetate	TEPA and OECD 301D	83 % - Readily - 28 days	-	-
2-methoxy-1-methylethyl acetate	-	83 % - Readily - 28 days	-	-

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Section 12. Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
n -butyl acetate 2-methoxy-1-methylethyl acetate	-	-	Readily Readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
 butyl acetate 2-methoxy-1-methylethyl acetate 	2.3 1.2	-	Low Low

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 non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

	China	UN	IMDG	IATA
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	111	III	111
Environmental hazards	No.	No.	No.	No.

Product name S	0395640 SIGMADUR	2800 BASE R		Date of issue 16 Octob	er 2023 Version 2.04
Section 14. Transport information					
Marine polluta substances	nt Not a	pplicable.	Not applicable.	Not applicable.	Not applicable.
Additional info	rmation				
CN	: None	identified.			
UN	: None	identified.			
IMDG	: None	identified.			
ΙΑΤΑ	: None	identified.			
Transport in be to IMO instrum Section 1	ents		plicable. formation		
China inventory					
		: All com	ponents are listed or exe	empted.	

Section 16. Other information

<u>History</u>	
Date of issue/Date of revision	: 16 October 2023
Date of previous issue	: 3/17/2023
Version	: 2.04
	EHS

Product name SIGMADUR 2800 BASE RAL 2002

Section 16. Other information

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

✓ 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.