SAFETY DATA SHEET



Date of issue/Date of revision16 February 2025Version 4.03

Section 1. Identification of the substance/mixture and of the company/undertaking

Product code	: 00150021
Product name	: SIGMACOVER 456 BASE RAL 1004
Other means of identification	: Not available.
Product type	: Liquid.

Relevant identified uses of the substance or mixture and uses advised against		
Product use	Coating. Professional applications, Used by spraying.	
Uses advised against	: Product is not intended, labelled or packaged for consumer use.	
Supplier's details	: PPG Coatings (Thailand) Co., Ltd. 15 Rama 9 Road, Kwaeng Huamark, Khet Bangkapi, Bangkok 10240 Thailand T: 662-319-4190 #224 F: 662-319-4189	
Emergency telephone number (with hours of operation)	: CHEMTREC 001-800-13-203-9987 (CCN 17704)	

Section 2. Hazards identification

: FLAMMABLE LIQUIDS - Category 3
ACUTE TOXICITY (dermal) - Category 5
ACUTE TOXICITY (inhalation) - Category 4
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1B
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract
irritation) - Category 3
AQUATÍC HAZĂRD (ACUTE) - Category 3
AQUATIC HAZARD (LONG-TERM) - Category 2
Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 60.4%
Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 69.1%

Section 2. Hazards identification

Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 34.1%

Hazard pictograms	
Signal word	: Warning
Hazard statements	 Flammable liquid and vapor. May be harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Harmful if inhaled. May cause respiratory irritation. Harmful to aquatic life. Toxic 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. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.
Response	: Collect spillage. 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. IF ON SKIN: Call a POISON CENTER or doctor if you feel unwell. If skin irritation or rash occurs: Get medical advice or attention. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse. 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.
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.
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
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro- 2,3-epoxypropane, reaction products with fatty acids, C18-unsatd., dimers	25- <50	67989-52-0
xylene	20- <25	1330-20-7
barium sulfate	10- <20	7727-43-7
Talc , not containing asbestiform fibres	3 - <5	14807-96-6
ethylbenzene	3 - <5	100-41-4
2-methylpropan-1-ol	1- <3	78-83-1

There are no 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.

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 : Causes serious eye irritation. Inhalation : Harmful if inhaled. May cause respiratory irritation. · May be harmful in contact with skin. Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction. Skin contact 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

Section 4. First aid measures

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.
Indication of immediate me	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.
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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 toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon oxides nitrogen oxides sulfur oxides halogenated compounds 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.

Section 5. Fire-fighting measures

Special	protective
equipme	ent 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, 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. Collect spillage.	

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 handling
 Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. 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,

Section 7. Handling and storage

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
x ylene		Ministry of Labor (Thailand, 8/2017)
		[xylene (o-, m-, p- isomers)]
		TWA 8 hours: 100 ppm.
barium sulfate		Ministry of Labor (Thailand, 8/2017)
		TWA 8 hours: 5 mg/m ³ . Form: Respirable
		dust.
		TWA 8 hours: 15 mg/m ³ . Form: inhalable
	a	dust.
Talc , not containing asbestifor	rm fibres	Ministry of Labor (Thailand, 8/2017)
		TWA 8 hours: 2 mg/m ³ . Form: Respirable
		dust.
ethylbenzene		Ministry of Labor (Thailand, 8/2017)
		TWA 8 hours: 100 ppm.
2-methylpropan-1-ol		ACGIH TLV (United States, 1/2024)
		TWA 8 hours: 50 ppm.
		TWA 8 hours: 152 mg/m ³ .
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.	
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		

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Section 8. Exposure controls/personal protection

Individual protection measures

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	: 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

Appearance	
Physical state	: Liquid.
Color	: Yellow.
Odor	: Characteristic.
Odor threshold	: Not available.
рН	: insoluble in water.
Melting point	: Not available.
Boiling point	: >37.78°C (>100°F)
Flash point	: Closed cup: 25°C (77°F)
Evaporation rate	: Not available.
Flammability (solid, gas)	: liquid

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Section 9. Physical and chemical properties

Lower and upper explosive (flammable) limits	:	Not available.	
Vapor pressure	:	Not available.	
Vapor density	:	Not available.	
Relative density	:	1.34	
Solubility/icc)		Media	Result
Solubility(ies)	1	cold water	Not soluble
Partition coefficient: n- octanol/water	:	Not applicable.	
Auto-ignition temperature	:	Not available.	
Decomposition temperature	:	Stable under recommend	ded storage and handling conditions (see Section 7).
Viscosity	:	Dynamic (room temperat Kinematic (room tempera Kinematic (40°C): >21 m	ature): Not available.

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

Section 11. Toxicological information

Information on toxicological effects
Acute toxicity

Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
X lene	LD50 Dermal	Rabbit	1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
barium sulfate	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
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	-
2-methylpropan-1-ol	LC50 Inhalation Vapor	Rat	24.6 mg/l	4 hours
	LD50 Dermal	Rabbit	2460 mg/kg	-
	LD50 Oral	Rat	2830 mg/kg	-

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

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
x ylene	Skin - Moderate irritant	Rabbit		24 hours 500 mg	-

Conclusion/Summary				
Skin	1	There are no data available	on the mixture i	tself.
Eyes	1	There are no data available	on the mixture i	tself.
Respiratory	4	There are no data available	on the mixture i	tself.
Sensitization				
Conclusion/Summary				
Skin	1	There are no data available	on the mixture i	tself.
Respiratory	1	There are no data available	on the mixture i	tself.
Mutagenicity				
Conclusion/Summary	1	There are no data available	on the mixture i	tself.
Carcinogenicity				
Conclusion/Summary	1	There are no data available	on the mixture i	tself.
Reproductive toxicity				
Conclusion/Summary	:	There are no data available	on the mixture i	tself.
Teratogenicity				
Conclusion/Summary	1	There are no data available	on the mixture i	tself.
Specific target organ toxi	cit	<u>y (single exposure)</u>		

Name		Route of exposure	Target organs
	Category 3 Category 3	-	Respiratory tract irritation Respiratory tract irritation
2-methylpropan-1-ol	Category 3 Category 3	-	Respiratory tract irritation Narcotic effects

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

Name	•••	Route of exposure	Target organs
ethylbenzene	Category 2	-	hearing organs

Aspiration hazard

Name	Result
xylene	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1
2-methylpropan-1-ol	ASPIRATION HAZARD - Category 2

Information on the likely routes of exposure	:	Not available.
Potential acute health effects		
Eye contact	:	Causes serious eye irritation.
Inhalation	:	Harmful if inhaled. May cause respiratory irritation.
Skin contact	:	May be harmful in contact with skin. Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
Ingestion	1	No known significant effects or critical hazards.
Symptoms related to the physical	sic	cal, 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.
	<u>ts</u>	and also chronic effects from short and long term exposure
Short term exposure Potential immediate effects	:	Not available.
Potential delayed effects	:	Not available.
<u>Long term exposure</u>		
Potential immediate effects	:	Not available.

Section 11. Toxicological information

Potential delayed effects	: Not available.
Potential chronic health ef	<u>fects</u>
General	 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	: No known significant effects or critical hazards.
Reproductive toxicity	: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Øral	8160.81 mg/kg
Dermal	2335.09 mg/kg
Inhalation (vapors)	14.8 mg/l
Inhalation (dusts and mists)	1.9 mg/l

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
ethylbenzene	Acute EC50 1.8 mg/l Fresh water	Daphnia	48 hours
	Chronic NOEC 1 mg/l Fresh water	Daphnia - Ceriodaphnia dubia	-
2-methylpropan-1-ol	Acute EC50 1100 mg/l	Daphnia	48 hours
Conclusion/Summary	: There are no data available on the	mixture itself.	

Persistence/degradability

Product/ingredient name	Test	Result		Dose	Inoculum
ethylbenzene	-	79 % - Readily - 10	days	-	-
Conclusion/Summary	: There are no data available on the mixture itself.				
Product/ingredient name	Aquatic half-life		Photolysis	5	Biodegradability
₩ylene ethylbenzene	-		-		Readily Readily

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Section 12. Ecological information

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
xylene	3.12	7.4 to 18.5	Low
ethylbenzene	3.6	79.43	Low
2-methylpropan-1-ol	1	-	Low

Mobility in soil

Soil/Water partition coefficient	: Not available.
Other adverse effects	: No known significant effects or critical hazards.

Section 13. Disposal considerations

Section 14. Transport information

	UN	IMDG	ΙΑΤΑ
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class(es)	3	3	3
Packing group	II	III	III
Environmental hazards	Yes. The environmentally hazardous substance mark is not required.	Yes.	Yes. The environmentally hazardous substance mark is not required.

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Section 14. Transport information

	•		
Marine pollutant substances	Not applicable.	 (4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro- 2,3-epoxypropane, reaction products with fatty acids, C18-unsatd., dimers) 	Not applicable.

Additional information

UN IMDG	 None identified. The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. 	
ΙΑΤΑ	: The environmentally hazardous substance mark may appear if required by other transportation regulations.	
Special precauti	ions 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

Harmful Chemicals List Safety, health and environmental regulations specific for the product	 Listed No known specific national and/or regional regulations applicable to this product (including its ingredients).
International regulations	
Montreal Protocol	

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Section 16. Other information

<u>History</u>	
Date of issue/Date of revision	: 16 February 2025
Date of previous issue	: 2/9/2025
Version	: 4.03
Prepared by	: EHS

Product code 00150021

Product name SIGMACOVER 456 BASE RAL 1004

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
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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.