SAFETY DATA SHEET

PPG

Version3.01

Date of issue/Date of revision 23 January 2024

Section 1. Identification

Product code	: 00318312
Product name	: SIGMATHERM 540 BLACK
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	: PT PPG Coatings Indonesia JI. Rawagelam III No.1 13930 Jakarta Indonesia Tel +62 21 4605710 PMC.Safety@PPG.com
Emergency telephone number	: CHEMTREC 001-803-017-9114 (CCN 17704)

Section 2. Hazards identification

Classification of the	: FLAMMABLE LIQUIDS - Category 3
substance or mixture	SKIN CORROSION/IRRITATION - Category 2
	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract
	irritation) - Category 3
	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the
	aquatic environment: 60.5%

GHS label elements, incluc Hazard pictograms	ing precautionary statements
Signal word	: Danger
Hazard statements	 Flammable liquid and vapor. Causes skin irritation. Causes serious eye damage. May cause respiratory irritation. May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Section 2. Hazards identification

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. Do not breathe vapor. Wash thoroughly after handling.
Response	:	Get medical advice or attention if you feel unwell. 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: Wash with plenty of water. If skin irritation 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. Immediately call a POISON CENTER or doctor.
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

EC number	: Mixture.
CAS number	: Not applicable.

Ingredient name	%	CAS number
xylene	10- <20	1330-20-7
1-methoxy-2-propanol	5- <10	107-98-2
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	5- <10	2530-83-8
ethylbenzene	3- <5	100-41-4
crystalline silica, respirable powder (<10 microns)	1- <3	14808-60-7
1-Butanol, titanium(4+) salt (4:1), homopolymer	1- <3	9022-96-2
toluene	0.3- <1	108-88-3

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.

SUB codes represent substances without registered CAS Numbers.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures Eye contact : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention. 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.

Section 4. First aid measures

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

Most important symptoms/enects, acute and delayed		
Potential acute health effe	<u>cts</u>	
Eye contact	: Causes serious eye damage.	
Inhalation	: May cause respiratory irritation.	
Skin contact	: Causes skin irritation. Defatting to the skin.	
Ingestion	: No known significant effects or critical hazards.	
Over-exposure signs/symp	<u>otoms</u>	
Eye contact	: Adverse symptoms may include the following: pain watering redness	
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing	
Skin contact	: Adverse symptoms may include the following: pain or irritation redness dryness cracking blistering may occur	
Ingestion	: Adverse symptoms may include the following: stomach pains	
Indication of immediate me	dical attention and special treatment needed, if necessary	
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

Extinguishing media	
Suitable extinguishing media	: Use dry chemical, CO ₂ , water spray (fog) or foam.
Unsuitable extinguishing media	: Do not use water jet.

Section 5. Fire-fighting measures

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.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon 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.

Section 6. Accidental release measures

Personal precautions, protecti	ve 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. Do not breathe 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).
Methods and materials for con	tainment 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

Protective measures	:	Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. 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.
Advice on general occupational hygiene	:	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
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			
xylene	Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). [Xylene (o, m,p-isomers)] TWA: 434 mg/m ³ 8 hours. TWA: 100 BDS 8 hours. STEL: 651 mg/m ³ 15 minutes. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 651 mg/m ³ 15 minutes. STEL: 150 BDS 15 minutes.			
1-methoxy-2-propanol	Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 100 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 553 mg/m ³ 15 minutes.			
ethylbenzene	STEL: 150 BDS 15 minutes. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018).			
	Indonesia [/] Page: 5/13			

Section 8. Exposure controls/personal protection

			TWA: 20 BDS 8 hours. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 543 mg/m ³ 15 minutes. STEL: 125 BDS 15 minutes.
crystalline silica, respirable powder (<10 microns)		der (<10 microns)	ACGIH TLV (United States, 1/2023). [Silica, crystalline] TWA: 0.025 mg/m ³ 8 hours. Form:
toluene			Respirable Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 20 BDS 8 hours.
Recommended monitoring procedures	:		riate monitoring standards. Reference to hods for the determination of hazardous
Appropriate engineering controls	:	contaminants below any recommende	ols to keep worker exposure to airborne ed or statutory limits. The engineering controls concentrations below any lower explosive
Environmental exposure controls	:		
Individual protection measur	<u>es</u>		
Hygiene measures	:	eating, smoking and using the lavator Appropriate techniques should be use	bughly after handling chemical products, before y and at the end of the working period. ed to remove potentially contaminated clothing. eusing. Ensure that eyewash stations and station location.
Eye/face protection	:	Chemical splash goggles and face sh	ield.
Skin protection			
Hand protection	:	be worn at all times when handling ch this is necessary. Considering the pa check during use that the gloves are should be noted that the time to break	s complying with an approved standard should nemical products if a risk assessment indicates arameters specified by the glove manufacturer, still retaining their protective properties. It kthrough for any glove material may be arers. In the case of mixtures, consisting of the of the gloves cannot be accurately
Gloves	1	For prolonged or repeated handling, u	use the following type of gloves:
		Not recommended: nitrile rubber Recommended: polyvinyl alcohol (PV	A), butyl rubber, Viton®
Body protection	:	being performed and the risks involve	
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Section 8. Exposure controls/personal protection

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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	1	Black.		
Odor	:	Aromatic.		
Odor threshold	1	Not available.		
рН	:	Not applicable.		
Melting point	:	Not available.		
Boiling point	:	>37.78°C (>100°F)		
Flash point	:	Closed cup: 27°C (80.6°F)		
Evaporation rate	:	Not available.		
Flammability/Combustible properties (solid, gas)	:	Not available.		
Lower and upper explosive (flammable) limits	:	Greatest known range: Lower: 1.48% Upper: 13.74% (1-methoxy-2-propanol)		
Vapor pressure	:	Not available.		
Vapor density	:	Not available.		
Relative density	:	1.34		
Solubility(ies)		Media Result		
••••••••••••••••••••••••••••••••••••••	1	cold water Not soluble		
Partition coefficient: n- octanol/water	:	Not applicable.		
Auto-ignition temperature	:	Not available.		
Decomposition temperature	:	Not available.		
Viscosity	:	Kinematic (40°C): >21 mm²/s		
Section 10. Stabili	ty	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.

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Section 10. Stability and reactivity

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 metal oxide/oxides

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
xylene	LD50 Dermal	Rabbit	1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
1-methoxy-2-propanol	LC50 Inhalation Vapor	Rat	>7000 ppm	6 hours
	LD50 Dermal	Rabbit	13 g/kg	-
	LD50 Oral	Rat	5.2 g/kg	-
[3-(2,3-epoxypropoxy)propyl] trimethoxysilane	LC50 Inhalation Dusts and mists	Rat	>5300 mg/m ³	4 hours
2	LD50 Dermal	Rabbit	4.3 g/kg	-
	LD50 Oral	Rat	7.01 g/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	-
toluene	LC50 Inhalation Vapor	Rat	49 g/m ³	4 hours
	LD50 Dermal	Rabbit	8.39 g/kg	-
	LD50 Oral	Rat	5580 mg/kg	-

Conclusion/Summary

: There are no data available on the mixture itself.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
xylene [3-(2,3-epoxypropoxy)propyl] trimethoxysilane	Skin - Moderate irritant Eyes - Cornea opacity	Rabbit Rabbit	- 11.8	24 hours 500 mg 1 minutes	- 24 hours

Conclusion/Summary Skin : There are no data available on the mixture itself. : There are no data available on the mixture itself. Eyes Respiratory : There are no data available on the mixture itself. **Sensitization Conclusion/Summary** : There are no data available on the mixture itself. Skin : There are no data available on the mixture itself. Respiratory **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

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Section 11. Toxicological information

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	Category	Route of exposure	Target organs
xylene	Category 3	-	Respiratory tract irritation
1-methoxy-2-propanol	Category 3	-	Narcotic effects
1-Butanol, titanium(4+) salt (4:1), homopolymer	Category 3	-	Respiratory tract irritation
toluene	Category 3 Category 3	-	Narcotic effects Narcotic effects

Specific target organ toxicity (repeated exposure)

Name		Route of exposure	Target organs
ethylbenzene	Category 2	-	hearing organs
crystalline silica, respirable powder (<10 microns)	Category 1	inhalation	-
toluene	Category 2	-	-

Aspiration hazard

Name	Result
ethylbenzene	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1

Information on the likely : routes of exposure

N	lot	avai	lab	le

Potential acute health effects

Eye contact	: Causes serious eye damage.
Inhalation	: May cause respiratory irritation.
Skin contact	: Causes skin irritation. Defatting to the skin.
Ingestion	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: Adverse symptoms may include the following: pain watering redness
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing
Skin contact	: Adverse symptoms may include the following: pain or irritation redness dryness cracking blistering may occur

Section 11. Toxicological information

Ingestion

: Adverse symptoms may include the following: stomach pains

ts and also chronic effects from short and long term exposure
: There are no data available on the mixture itself.
: There are no data available on the mixture itself.
: There are no data available on the mixture itself.
: There are no data available on the mixture itself.
ects
: 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.
: No known significant effects or critical hazards.
: No known significant effects or critical hazards.
: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	18441.81 mg/kg
Dermal	5140.4 mg/kg
Inhalation (vapors)	43.11 mg/l
Inhalation (dusts and mists)	5.54 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. Trimethoxysilanes are capable of forming methanol if hydrolyzed or ingested. If swallowed, methanol may be harmful or fatal or cause blindness. Avoid contact with skin and clothing.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
1-methoxy-2-propanol	Acute LC50 23300 mg/l	Daphnia	48 hours
	Acute LC50 >4500 mg/l Fresh water	Fish	96 hours
[3-(2,3-epoxypropoxy)propyl] trimethoxysilane	Acute LC50 324 mg/l	Daphnia	48 hours
ethylbenzene	Acute EC50 1.8 mg/l Fresh water	Daphnia	48 hours
	Chronic NOEC 1 mg/l Fresh water	Daphnia - Ceriodaphnia dubia	-

Persistence/degradability

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Section 12. Ecological information

Product/ingredient name	Test	Result		Dose	Inoculum
ethylbenzene	-	79 % - Readily - 10	days	-	-
Product/ingredient name	Aquatic half-life		Photolysis	S	Biodegradability
xylene ethylbenzene toluene	- - -		- - -		Readily Readily Readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
xylene	3.12	7.4 to 18.5	Low
1-methoxy-2-propanol	<1	-	Low
ethylbenzene	3.6	79.43	Low
toluene	2.73	8.32	Low

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

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.

Section 14. Transport information

	UN	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class(es)	3	3	3
Packing group	III		
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Section 14. Transport information

Environmental	No.	No.	No.
hazards			
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.

Additional information

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

Safety, health and environmental regulations	: No known specific national and/or regional regulations applicable to this product (including its ingredients).	
specific for the product		

Law No. 74/2001 - Banned

None of the components are listed.

Law No. 74/2001 - Restricted

None of the components are listed.

Law No. 74/2001 - : Not determined

Chemicals that may be used

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	: 23 January 2024
Date of previous issue	: 1/18/2024
Version	: 3.01
Prepared by	: EHS

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Section 16. Other information

✓ 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.