# **SAFETY DATA SHEET**



Date of issue/Date of revision 10 July 2024 Version 1

Section 1. Identification	
Product code	: 000001099124
Product name	: SIGMACOVER 456 BASE GREY 5198
Other means of identification 00145439	ion
Product type	: Liquid.
	f the substance or mixture and uses advised against
Product use	Coating. Professional applications, Used by spraying.
Supplier's details	: PPG Industries (Singapore) Pte. Ltd., No. 1 Tuas Basin Close, Singapore 638803. Tel +65 68653737
Emergency telephone number (with hours of operation)	: CHEMTREC +(65)-31581349 (CCN 17704)

# Section 2. Hazards identification

: FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A SKIN SENSITISATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3
uding precautionary statements
: Warning
<ul> <li>Flammable liquid and vapour. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Harmful if inhaled. May cause respiratory irritation.</li> </ul>

# Section 2. Hazards identification

Precautionary statements	
Prevention	Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid breathing vapour. Wash thoroughly after handling.
Response	: IF INHALED: Call a POISON CENTER or doctor if you feel unwell. Take off contaminated clothing and wash it before reuse. 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.
Storage	: Store in a well-ventilated place. Keep container tightly closed.
Disposal	: Not applicable.

Other hazards which do not result in classification

Other hazards which do not : Prolonged or repeated contact may dry skin and cause irritation.

result in classification

### Section 3. Composition/information on ingredients

Mixture

Substance/mixture	1
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### **CAS number/other identifiers**

EC number : Mixture	plicable.
EC number . Mixture	э.

Ingredient name	%	CAS number
Epoxy Resin	20 - <25	SUB110652
xylene	10 - <20	1330-20-7
epoxy resin (MW $\leq$ 700)	5 - <10	25068-38-6
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
Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic acid and 1,3-phenylenedimethanamine	0.3 - <1	911674-82-3
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	0.1 - <0.3	100545-48-0

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	<ul> <li>Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.</li> </ul>
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.

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# Section 4. First aid measures

Skin contact	: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and
	water or use recognised skin cleanser. Do NOT use solvents or thinners.
Ingestion	: If swallowed, seek medical advice immediately and show the container or label.
	Keep person warm and at rest. Do NOT induce vomiting.
Ingestion	

### Most important symptoms/effects, acute and delayed

tion.	
No known significant effects or critical hazards.	
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See toxicological information (Section 11)

# Section 5. Firefighting measures

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

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# Section 5. Firefighting measures

-	-
Specific hazards arising from the chemical	: Flammable liquid and vapour. 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 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.
Special protective equipment for fire-fighters	<ul> <li>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.</li> </ul>

# Section 6. Accidental release measures

Personal precautions, protection	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 spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	: If specialised 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 spilt 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 material for cont	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 the 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 spill product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

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# Section 6. Accidental release measures

		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 oxidising 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 unlabelled 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	Workplace Safety and Health Act (Singapore, 2/2006). [Xylene] PEL (short term): 651 mg/m <sup>3</sup> 15 minutes. PEL (short term): 150 ppm 15 minutes. PEL (long term): 434 mg/m <sup>3</sup> 8 hours. PEL (long term): 100 ppm 8 hours.
Talc , not containing asbestiform fibres	Workplace Safety and Health Act (Singapore, 2/2006).
ethylbenzene	<ul> <li>PEL (long term): 2 mg/m<sup>3</sup> 8 hours.</li> <li>Workplace Safety and Health Act</li> <li>(Singapore, 2/2006).</li> <li>PEL (short term): 543 mg/m<sup>3</sup> 15 minutes.</li> <li>PEL (short term): 125 ppm 15 minutes.</li> <li>PEL (long term): 434 mg/m<sup>3</sup> 8 hours.</li> <li>PEL (long term): 100 ppm 8 hours.</li> </ul>
2-methylpropan-1-ol	Workplace Safety and Health Act (Singapore, 2/2006). PEL (long term): 152 mg/m <sup>3</sup> 8 hours. PEL (long term): 50 ppm 8 hours.
Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic	ACGIH TLV (United States).

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# Section 8. Exposure controls/personal protection

acid and 1,3-phenylenedimethanamine			TWA: 3 mg/m <sup>3</sup> , (Respirable fraction)	
Recommended monitoring procedures	:		iate monitoring standards. Reference to nods for the determination of hazardous	
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, vapour 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	<u>'es</u>			
Hygiene measures	:	eating, smoking and using the lavatory Appropriate techniques should be use Contaminated work clothing should no	d to remove potentially contaminated clothing. of be allowed out of the workplace. Wash Ensure that eyewash stations and safety	
Eye/face protection	:	Chemical splash goggles.		
Skin protection				
Hand protection	:	be worn at all times when handling che this is necessary. Considering the par check during use that the gloves are s should be noted that the time to break	rers. In the case of mixtures, consisting of	
Gloves	:	butyl rubber		
Body protection	:	being performed and the risks involved		
Other skin protection	:	Appropriate footwear and any addition selected based on the task being perfe approved by a specialist before handli	ormed and the risks involved and should be	
Respiratory protection	:	hazards of the product and the safe w workers are exposed to concentration appropriate, certified respirators. Use	n known or anticipated exposure levels, the orking limits of the selected respirator. If s above the exposure limit, they must use a properly fitted, air-purifying or air-fed I standard if a risk assessment indicates this is	

# Section 9. Physical and chemical properties

### **Appearance**

Physical state	Liquid.		
Colour	Grey.		
Odour	omatic.		
рН	t applicable.		
Boiling point	7.78°C (>100°F)		
Flash point	osed cup: 25°C (77°F)		
Evaporation rate	ghest known value: 0.84 (ethylbenzene) Weighted average: 0.77com tyl acetate	pared with	
Flammability (solid, gas)	lid		
Vapour pressure	ghest known value: <1.6 kPa (<12 mm Hg) (at 20°C) (2-methylpropa eighted average: 0.97 kPa (7.28 mm Hg) (at 20°C)	n-1-ol).	
Vapour density	hest known value: 3.7 (Air = 1) (xylene). Weighted average: 3.65	(Air = 1)	
Relative density	2		
	edia Result		
Solubility(ies)	ld water Not soluble		
Auto-ignition temperature	west known value: 415°C (779°F) (2-methylpropan-1-ol).		
Viscosity	nematic (40°C (104°F)): >21 mm²/s (>21 cSt)		

# Section 10. Stability and reactivity

	<i>,</i>
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: oxidising agents, strong alkalis, strong acids.
Hazardous decomposition products	<ul> <li>Depending on conditions, decomposition products may include the following materials: carbon oxides sulfur oxides halogenated compounds metal oxide/ oxides</li> </ul>

# 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	-
epoxy resin (MW ≤ 700)	LD50 Dermal	Rabbit	>2 g/kg	-
	LD50 Oral	Rat	>2 g/kg	-
ethylbenzene	LC50 Inhalation Vapour	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 Vapour	Rat	24.6 mg/l	4 hours
	LD50 Dermal	Rabbit	2460 mg/kg	-
	LD50 Oral	Rat	2830 mg/kg	-
Reaction products of	LC50 Inhalation Dusts and mists	Rat	>5.08 mg/l	4 hours
12-hydroxyoctadecanoic			-	
acid and octadecanoic acid				
and				
1,3-phenylenedimethanamine				
Octadecanoic acid,	LC50 Inhalation Dusts and mists	Rat	5.05 mg/l	4 hours
12-hydroxy-, reaction			-	
products with				
ethylenediamine				
	LD50 Oral	Rat	>2000 mg/kg	-

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

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
xylene	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
epoxy resin (MW  ≤ 700)	Eyes - Mild irritant Skin - Mild irritant	Rabbit Rabbit	-	-	-

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

#### **Sensitisation**

Product/ingredient name	Route of exposure	Species	Result
epoxy resin (MW ≤ 700) Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	skin skin	Mouse Guinea pig	Sensitising Sensitising

### **Conclusion/Summary**

Skin

Respiratory

: There are no data available on the mixture itself.

: There are no data available on the mixture itself.

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# Section 11. Toxicological information

### **Mutagenicity**

<b>Conclusion/Summary</b>	: There are no data available on the mixture itself.
<b>Carcinogenicity</b>	
<b>Conclusion/Summary</b>	: There are no data available on the mixture itself.
Reproductive toxicity	
<b>Conclusion/Summary</b>	: There are no data available on the mixture itself.
<b>Teratogenicity</b>	
<b>Conclusion/Summary</b>	: 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
Talc , not containing asbestiform fibres	Category 3	-	Respiratory tract irritation
2-methylpropan-1-ol	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects

### Specific target organ toxicity (repeated exposure)

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

### Aspiration hazard

Name	Result
<i>s</i>	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1

Information on 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	: Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
Ingestion	: No known significant effects or critical hazards.
Symptoms related to the phy	sical, chemical and toxicological characteristics
Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness

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Section 11. Toxicological information

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 as well as chronic effects from short and long-term exposure			
: Not available.			
: Not available.			
: Not available.			
: Not available.			
<u>ects</u>			
: 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.			
: 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
	6782.62 mg/kg 32.84 mg/l 4.22 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 vapour/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
epoxy resin (MW ≤ 700)	Acute LC50 1.8 mg/l	Daphnia	48 hours
	Chronic NOEC 0.3 mg/l	Daphnia	21 days
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
Reaction products of	Acute LC50 >100 mg/l	Fish	96 hours
12-hydroxyoctadecanoic	, i i i i i i i i i i i i i i i i i i i		
acid and octadecanoic acid			
and			
1,3-phenylenedimethanamine			
Octadecanoic acid,	Acute EC50 >100 mg/l	Algae - Pseudokirchneriella	72 hours
12-hydroxy-, reaction		subcapitata	
products with			
ethylenediamine			
	Acute EC50 >10 mg/l	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 >10 mg/l	Fish - Oncorhynchus mykiss	96 hours

Conclusion/Summary

: There are no data available on the mixture itself.

### Persistence/degradability

Product/ingredient name	Test	Result	Dose	Inoculum
epoxy resin (MW ≤ 700) ethylbenzene Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	OECD 301F - 301D Ready Biodegradability - Closed Bottle Test	5 % - 28 days 79 % - Readily - 10 day 22 % - 28 days	- /S - -	-
Conclusion/Summary : There are no data available on the mixture itself.				
Product/ingradiant name	Aquatic half-life Photolysis Biodogradabilit			

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
xylene	-	-	Readily
epoxy resin (MW ≤ 700)	-	-	Not readily
ethylbenzene	-	-	Readily
Octadecanoic acid,	-	-	Inherent
12-hydroxy-, reaction			
products with			
ethylenediamine			

**Bioaccumulative potential** 

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# Section 12. Ecological information

Product/ingredient name	LogPow	BCF	Potential
xylene epoxy resin (MW ≤ 700) ethylbenzene 2-methylpropan-1-ol Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	3.12 3 3.6 1 >5.86	7.4 to 18.5 31 79.43 - -	Low Low Low 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 minimised 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. Vapour 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 spilt 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	III	
Environmental hazards	No.	No.	No.
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### Section 14. Transport information

Marine pollutant	Not applicable.	Not applicable.	Not applicable.
substances			

#### **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

Singapore - hazardous chemicals under government control

None.

### 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	: 10 July 2024
Date of previous issue	: No previous validation
Version	: 1
Prepared by	: EHS
Key to abbreviations	: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Internediate Bulk Container 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) UN = United Nations

Indicates information that has changed from previously issued version.

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# Section 16. Other information

### 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.