SAFETY DATA SHEET



Date of issue/Date of revision27 October 2023Version 7.04

Section 1. Identification			
Product code	: 00179898		
Product name	: SIGMAFAST 20 BASE BASE Z		
Product type	: Liquid.		
Relevant identified uses of 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

Classification of the substance or mixture	 FLAMMABLE LIQUIDS - Category 3 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract
	irritation) - Category 3

GHS label elements, including precautionary statements

Hazard pictograms	
Signal word	: Warning
Hazard statements	 Flammable liquid and vapour. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.
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.

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Section 2. Hazards identification

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 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	: Prolonged or repeated contact may dry skin and cause irritation.

result in classification

Section 3. Composition/information on ingredients

Substance/mixture	:	Mixture
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CAS number/other identifiers

CAS number	:	Not applicable.
EC number	5	Mixture

Ingredient name	%	CAS number
xylene	10 - <20	1330-20-7
Talc , not containing asbestiform fibres	5 - <10	14807-96-6
ethylbenzene	3 - <5	100-41-4
trizinc bis(orthophosphate)	1 - <3	7779-90-0
Quaternary ammonium compounds, C12-14 (even-numbered)-	0.3 - <1	1474044-65-9
alkylethyldimethyl, ethyl sulphates		
Octadecanamide, N,N'-1,6-hexanediylbis[12-hydroxy-	0.3 - <1	55349-01-4
2-ethylhexanoic acid, zirconium salt	0.1 - <0.3	22464-99-9
calcium bis(2-ethylhexanoate)	0.1 - <0.3	136-51-6

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

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

SUB codes represent substances without registered CAS Numbers.

Section 4. First aid measures

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

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Section 4. First aid measures

Most important symptoms/	effects, acute and delayed
Potential acute health effe	<u>cts</u>
Eye contact	: Causes serious eye irritation.
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/sym	<u>otoms</u>
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.
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.

See toxicological information (Section 11)

Section 5. Firefighting 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 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.

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Section 5. Firefighting measures

Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon oxides phosphorus 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, 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 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".
Environmental precautions	:	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 con	<u>ita</u>	inment 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 spilt 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 ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. 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.
		Materials such as cleaning rags, paper wipes and protective clothing, which are contaminated with the product may spontaneously self-ignite some hours later. To avoid the risks of fires, all contaminated materials should be stored in purpose-built containers or in metal containers with tight-fitting, self-closing lids. Contaminated materials should be removed from the workplace at the end of each working day and be stored outside.
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 ³ 15 minutes. PEL (short term): 150 ppm 15 minutes. PEL (long term): 434 mg/m ³ 8 hours. PEL (long term): 100 ppm 8 hours.	
Talc , not containing asbestiform fibres	Workplace Safety and Health Act (Singapore, 2/2006). PEL (long term): 2 mg/m ³ 8 hours.	
ethylbenzene	Workplace Safety and Health Act	
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Section 8. Exposure controls/personal protection

2-ethylhexanoic acid, zirconiu	 (Singapore, 2/2006). PEL (short term): 543 mg/m³ 15 m PEL (short term): 125 ppm 15 min PEL (long term): 434 mg/m³ 8 hou PEL (long term): 100 ppm 8 hours t Workplace Safety and Health Act (Singapore, 2/2006). [Zirconium a compounds as Zr] PEL (short term): 10 mg/m³, (Zr) 8 hours PEL (long term): 5 mg/m³, (Zr) 8 hours 	nutes. urs. s. t and 15
Recommended monitoring procedures	eference should be made to appropriate monitoring standards. Referen tional guidance documents for methods for the determination of hazard bstances will also be required.	
Appropriate engineering controls	se only with adequate ventilation. Use process enclosures, local exhaus ntilation or other engineering controls to keep worker exposure to airbor ntaminants below any recommended or statutory limits. The engineerin so need to keep gas, vapour or dust concentrations below any lower exp nits. Use explosion-proof ventilation equipment.	rne ng controls
Environmental exposure controls	nissions from ventilation or work process equipment should be checked ey comply with the requirements of environmental protection legislation. ses, fume scrubbers, filters or engineering modifications to the process upment will be necessary to reduce emissions to acceptable levels.	In some
Individual protection measur		
Hygiene measures	ash hands, forearms and face thoroughly after handling chemical produ- ting, smoking and using the lavatory and at the end of the working perio opropriate techniques should be used to remove potentially contaminate ash contaminated clothing before reusing. Ensure that eyewash station fety showers are close to the workstation location.	od. d clothing.
Eye/face protection	nemical splash goggles.	
Skin protection		
Hand protection	nemical-resistant, impervious gloves complying with an approved standa worn at all times when handling chemical products if a risk assessmen s is necessary. Considering the parameters specified by the glove mar eck during use that the gloves are still retaining their protective properti ould be noted that the time to breakthrough for any glove material may ferent for different glove manufacturers. In the case of mixtures, consist veral substances, the protection time of the gloves cannot be accurately timated.	t indicates nufacturer, es. It be sting of
Gloves	r prolonged or repeated handling, use the following type of gloves: ay be used: nitrile rubber ecommended: polyvinyl alcohol (PVA), Chloroprene, Viton®	

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Section 8. Exposure controls/personal protection

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Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
Other skin protection	 Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Section 9. Physical and chemical properties

<u>Appearance</u>		
Physical state	:	Liquid.
Colour	:	Various
Odour	:	Aromatic.
рН	:	insoluble in water.
Boiling point	:	>37.78°C (>100°F)
Flash point	:	Closed cup: 31°C (87.8°F)
Evaporation rate	:	Highest known value: 0.84 (ethylbenzene) Weighted average: 0.78compared with butyl acetate
Flammability (solid, gas)	:	liquid
Vapour pressure	:	Highest known value: 1.2 kPa (9.3 mm Hg) (at 20°C) (ethylbenzene). Weighted average: 0.95 kPa (7.13 mm Hg) (at 20°C)
Vapour density	:	Highest known value: 3.7 (Air = 1) (xylene). Weighted average: 3.7 (Air = 1)
Relative density	:	1.48
		Media Result
Solubility(ies)		cold water Not soluble
Auto-ignition temperature	:	Lowest known value: 432°C (809.6°F) (xylene).
Viscosity	:	Kinematic (room temperature): >400 mm²/s (>400 cSt) Kinematic (40°C (104°F)): >21 mm²/s (>21 cSt)

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.

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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: oxidising agents, strong alkalis, strong acids.
Hazardous decomposition products	:	Depending on conditions, decomposition products may include the following materials: carbon oxides phosphorus 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	-
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	-
trizinc bis(orthophosphate)	LC50 Inhalation Dusts and mists	Rat	>5.7 mg/l	4 hours
	LD50 Oral	Rat	>5000 mg/kg	-
Quaternary ammonium compounds, C12-14 (even- numbered)- alkylethyldimethyl, ethyl sulphates	LD50 Dermal	Rabbit	528 mg/kg	-
	LD50 Oral	Rat	570 mg/kg	-
2-ethylhexanoic acid, zirconium salt	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	>5 g/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	-

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	
Conclusion/Summary	
Skin	: There are no data available on the mixture itself.
Respiratory	: There are no data available on the mixture itself.
Mutagenicity	
Conclusion/Summary	: There are no data available on the mixture itself.
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Section 11. Toxicological information

Carcinogenicity

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

Reproductive toxicity

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	•••	Route of exposure	Target organs
xylene Talc , not containing asbestiform fibres	Category 3 Category 3	-	Respiratory tract irritation Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

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

Aspiration hazard

Name	Result
	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	: May cause respiratory irritation.
Skin contact	: Causes skin irritation. Defatting to the skin.
Ingestion	: No known significant effects or critical hazards.
Symptoms related to the phys	sical, 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

Section 11. Toxicological information

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Skin contact	: Adverse symptoms may include the following: irritation redness dryness cracking
Ingestion	: No specific data.
Delayed and immediate effe	cts as well as chronic effects from short and long-term exposure
Short term exposure	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
Long term exposure	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
Potential chronic health eff	<u>ects</u>
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

Route	ATE value
	2116.33 mg/kg 41.93 mg/l
	5.36 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
ethylbenzene	Acute EC50 1.8 mg/l Fresh water	Daphnia	48 hours
-	Chronic NOEC 1 mg/l Fresh water	Daphnia - Ceriodaphnia dubia	-
trizinc bis(orthophosphate)	Acute LC50 0.112 mg/l	Fish	96 hours
	Chronic NOEC 0.026 mg/l	Fish	30 days
Quaternary ammonium compounds, C12-14 (even- numbered)-	EC50 0.14 mg/l	Algae	72 hours
alkylethyldimethyl, ethyl			
sulphates		Destado	10 h a
	EC50 0.036 mg/l	Daphnia	48 hours
	LC50 13.8 mg/l	Fish	96 hours
	NOEC 10 mg/m ³	Algae	72 hours
	NOEC 7 mg/m ³	Daphnia	21 days
	NOEC 3.2 mg/m ³	Fish	28 days
2-ethylhexanoic acid, zirconium salt	Acute LC50 >100 mg/l	Fish	96 hours

Conclusion/Summary

: There are no data available on the mixture itself.

Persistence/degradability

Product/ingredient name	Test	Result	Dose	Inoculum
ethylbenzene Quaternary ammonium compounds, C12-14 (even- numbered)- alkylethyldimethyl, ethyl sulphates	-	79 % - Readily - 10 days 67.77 % - Readily - 28 days	-	-
Conclusion/Summary : There are no data available on the mixture itself.				

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
xylene ethylbenzene Quaternary ammonium compounds, C12-14 (even- numbered)- alkylethyldimethyl, ethyl sulphates	-		Readily Readily Readily

Bioaccumulative potential

Section 12. Ecological information

Product/ingredient name	LogPow	BCF	Potential
xylene ethylbenzene Quaternary ammonium compounds, C12-14 (even- numbered)- alkylethyldimethyl, ethyl sulphates	3.12 3.6 3.2	7.4 to 18.5 79.43 -	Low Low 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

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

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Section 14. Transport information

Additional information

UN	This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according to 2.3.2.5.1.
IMDG	 This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according to 2.3.2.5.
ΙΑΤΑ	: None identified.
Special prec	autions 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	: 27 October 2023
Date of previous issue	: 10/27/2023
Version	: 7.04
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 = International Air Transport Association IBC = 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
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✓ Indicates information that has changed from previously issued version.

Notice to reader

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Section 16. Other information

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.