SAFETY DATA SHEET

Date of issue/Date of revision

: 18 September 2023 Version



pPG

: 5

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

1.1 Product identifier	
Product name	: SIGMATHERM 230 HARDENER
Product code	: 00273019
Other means of identificati	on

Not available.

number

1.2 Relevant identified uses of the substance or mixture and uses advised against

Product use	: Professional applications, Used by spraying.
Use of the substance/ mixture	: Coating.
Uses advised against	: Product is not intended, labelled or packaged for consumer use.

1.3 Details of the supplier of the safety data sheet

Varossieau Suriname NV, Mastanaweg 4, Paramaribo, SURINAME Tel: 00597 484447 Fax: 00597 483785	
e-mail address of person responsible for this SDS	: Product.Stewardship.EMEA@ppg.com
1.4 Emergency telephone	: 0031 (0)20 4075210

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS] Flam. Liq. 3, H226 Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Repr. 1B, H360F STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Code : 00273019	Date of issue/Date of revision: 18 September2023
SIGMATHERM 230 HARDEN	IER
SECTION 2: Hazards	s identification
Hazard pictograms	
Signal word	: Danger
Hazard statements	 Flammable liquid and vapour. May be fatal if swallowed and enters airways. Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause respiratory irritation. May damage fertility. 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. Avoid release to the environment.
Response	: Collect spillage.
Storage	: Store in a well-ventilated place. Keep container tightly closed.
Disposal	 Dispose of contents and container in accordance with all local, regional, national and international regulations. P280, P210, P273, P391, P403 + P233, P501
Hazardous ingredients	 Kylene 2-methylpropan-1-ol 2,4,6-tris(dimethylaminomethyl)phenol N-(3-(trimethoxysilyl)propyl)ethylenediamine m-phenylenebis(methylamine) bisphenol A 3-aminopropyldimethylamine
Supplemental label elements	: Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Restricted to professional users.
Special packaging require	ments
Containers to be fitted with child-resistant fastenings	: Not applicable.
Tactile warning of danger	: Not applicable.
2.3 Other hazards	
Product meets the criteria for PBT or vPvB	: This mixture does not contain any substances that are assessed to be a PBT or a vPvl
Other hazards which do not result in classification	: Prolonged or repeated contact may dry skin and cause irritation.
	May cause endocrine disruption.

Code

: 00273019

Date of issue/Date of revision

: 18 September 2023

SIGMATHERM 230 HARDENER

SECTION 3: Composition/information on ingredients

3.2 Mixtures

: Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Туре
▶enzyl alcohol	REACH #: 01-2119492630-38 EC: 202-859-9 CAS: 100-51-6 Index: 603-057-00-5	≥10 - ≤25	Acute Tox. 4, H302 Acute Tox. 4, H332 Eye Irrit. 2, H319	ATE [Oral] = 1230 mg/ kg ATE [Inhalation (dusts and mists)] = 1.5 mg/l	[1] [2]
xylene	REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9	≥10 - ≤25	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Asp. Tox. 1, H304	ATE [Dermal] = 1700 mg/kg ATE [Inhalation (vapours)] = 11 mg/l	[1] [2]
Formaldehyde, polymer with N,N-dimethyl- 1,3-propanediamine and phenol	CAS: 445498-00-0	≥5.0 - ≤8.8	Acute Tox. 4, H302 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 500 mg/ kg M [Acute] = 1 M [Chronic] = 1	[1]
2-methylpropan-1-ol	REACH #: 01-2119484609-23 EC: 201-148-0 CAS: 78-83-1 Index: 603-108-00-1	≥5.0 - ≤10	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336	-	[1] [2]
2,4,6-tris (dimethylaminomethyl) phenol	REACH #: 01-2119560597-27 EC: 202-013-9 CAS: 90-72-2 Index: 603-069-00-0	≥1.0 - ≤6.4	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1C, H314 Eye Dam. 1, H318	ATE [Oral] = 1200 mg/ kg ATE [Dermal] = 1280 mg/kg	[1]
N-(3-(trimethoxysilyl)propyl) ethylenediamine	EC: 217-164-6 CAS: 1760-24-3	≥1.0 - ≤5.0	Eye Dam. 1, H318 Skin Sens. 1B, H317 STOT SE 3, H335	-	[1]
ethylbenzene	REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4	≥1.0 - ≤5.0	Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304 Aquatic Chronic 3, H412	ATE [Inhalation (vapours)] = 17.8 mg/l	[1] [2]
m-phenylenebis (methylamine)	REACH #: 01-2119480150-50 EC: 216-032-5 CAS: 1477-55-0	≥1.0 - ≤3.3	Acute Tox. 4, H302 Acute Tox. 4, H332 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1B, H317 Aquatic Chronic 3, H412 EUH071	ATE [Oral] = 930 mg/ kg ATE [Inhalation (gases)] = 4500 ppm	[1] [2]
bisphenol A	REACH #: 01-2119457856-23 EC: 201-245-8	≤1.6	Eye Dam. 1, H318 Skin Sens. 1, H317 Repr. 1B, H360F	M [Acute] = 1 M [Chronic] = 10	[1] [2] [3]
		English	(GB) Su	riname	3/21

Code :	00273019	Date of issue/Date of revision	: 18 September 2023
SIGMATHERM	1 230 HARDENER		2020

SECTION 3: Composition/information on ingredients

•			•		
	CAS: 80-05-7 Index: 604-030-00-0		STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410		
salicylic acid	REACH #: 01-2119486984-17 EC: 200-712-3 CAS: 69-72-7 Index: 607-732-00-5	≤1.2	Acute Tox. 4, H302 Eye Dam. 1, H318 Repr. 2, H361d	ATE [Oral] = 891 mg/ kg	[1]
3-aminopropyldimethylamine	REACH #: 01-2119486842-27 EC: 203-680-9 CAS: 109-55-7 Index: 612-061-00-6	≤0.30	Flam. Liq. 3, H226 Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 See Section 16 for the full text of the H statements declared above.	ATE [Oral] = 410 mg/ kg ATE [Dermal] = 1100 mg/kg	[1]

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, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Xylene: Several REACH registrations cover the REACH registered substance with xylene isomers, ethylbenzene (and toluene). The other REACH Registrations include: 01-2119555267-33 reaction mass of ethylbenzene and m-xylene and p-xylene, 01-2119486136-34 Aromatic hydrocarbons, C8, 01-2119539452-40 reaction mass of ethylbenzene and xylene. <u>Type</u>

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance of equivalent concern

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

SUB codes represent substances without registered CAS Numbers.

SECTION 4: First aid measures

4.1 Description of first alu fi	leasures
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.
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.
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.

4.2 Most important sy	mptoms and effects, both acute and delayed
Potential acute healt	h effects
Eye contact	: Causes serious eye damage.
Inhalation	: May cause respiratory irritation.

English (GB)

Code	: 00273019	Date of issue/Date of revision	: 18 September 2023
			_0_0

SIGMATHERM 230 HARDENER

SECTION 4: First aid measures

Skin contact	: Causes severe burns. Defatting to the skin. May cause an allergic skin reaction.
Ingestion	: May be fatal if swallowed and enters airways.
Over-exposure signs/	/symptoms
Eye contact	: Adverse symptoms may include the following: pain watering redness
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing reduced foetal weight increase in foetal deaths skeletal malformations
Skin contact	: Adverse symptoms may include the following: pain or irritation redness dryness cracking blistering may occur reduced foetal weight increase in foetal deaths skeletal malformations
Ingestion	: Adverse symptoms may include the following: stomach pains nausea or vomiting reduced foetal weight increase in foetal deaths skeletal malformations

4.3 Indication of any immediate medical attention and special treatment needed

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.

SECTION 5: Firefighting measures

5.1 Extinguishing media	
Suitable extinguishing media	: Use dry chemical, CO ₂ , water spray (fog) or foam.
Unsuitable extinguishing media	: Do not use water jet.
5.2 Special hazards arising fr	om the substance or mixture
Hazards from the substance or mixture	: 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. 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 combustion products	: Decomposition products may include the following materials: carbon oxides nitrogen oxides metal oxide/oxides Formaldehyde.

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878					
Code : 00273019		Date of issue/Date of revision	: 18 September 2023		
SIGMATHERM 230 HARDENE	ER				
SECTION 5: Firefight	ting measur	es			
5.3 Advice for firefighters					
Special precautions for fire-fighters	there is a fire. training. Move	ate the scene by removing all persons from the vi . No action shall be taken involving any personal re containers from fire area if this can be done with fire-exposed containers cool.	risk or without suitable		
Special protective equipment for fire-fighters	apparatus (SC	should wear appropriate protective equipment and CBA) with a full face-piece operated in positive pr is (including helmets, protective boots and gloves	essure mode. Clothing		

5.3 Advice for firefighters	
Special precautions 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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, pro	ote	ctive 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. Do not breathe 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".
6.2 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

the environment if released in large quantities. Collect spillage.

pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to

6.3 Methods and material 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 contrainer. 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.
6.4 Reference to other sections	 See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Code	: 00273019	Date of issue/Date of revision	: 18 September 2023
SIGMATH	ERM 230 HARDEN	IER	
SECTIO	ON 7: Handlir	ng and storage	
Protectiv	ve measures	: Put on appropriate personal protective equipment (see Section & history of skin sensitization problems should not be employed in this product is used. Avoid exposure - obtain special instruction exposure during pregnancy. Do not handle until all safety preca and understood. Do not get in eyes or on skin or clothing. Do n mist. Do not swallow. Avoid release to the environment. Use o ventilation. Wear appropriate respirator when ventilation is inad storage areas and confined spaces unless adequately ventilated container or an approved alternative made from a compatible m closed when not in use. Store and use away from heat, sparks, ignition source. Use explosion-proof electrical (ventilating, lighti handling) equipment. Use only non-sparking tools. Take preca	any process in which s before use. Avoid utions have been read ot breathe vapour or nly with adequate equate. Do not enter d. Keep in the original aterial, kept tightly open flame or any othe ng and material utionary measures
	on general ional hygiene	: Eating, drinking and smoking should be prohibited in areas when handled, stored and processed. Workers should wash hands an drinking and smoking. Remove contaminated clothing and prote entering eating areas. See also Section 8 for additional informa measures.	nd face before eating, ective equipment before
	tions for safe ncluding any ibilities	: Store between the following temperatures: 0 to 35°C (32 to 95°F with local regulations. Store in a segregated and approved area container protected from direct sunlight in a dry, cool and well-ve from incompatible materials (see Section 10) and food and drink Eliminate all ignition sources. Separate from oxidising materials closed and sealed until ready for use. Containers that have bee carefully resealed and kept upright to prevent leakage. Do not s containers. Use appropriate containment to avoid environmenta Section 10 for incompatible materials before handling or use.	 Store in original entilated area, away Store locked up. Keep container tightly n opened must be store in unlabelled

7.3 Specific end use(s)

See Section 1.2 for Identified uses.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values		
benzyl alcohol	IPEL (-).		
	TWA: 5 ppm		
	STEL: 10 ppm		
xylene	EU OEL (Europe, 1/202	2). [xylene, mixed isomers p	ure]
	Absorbed through skin	I.	
	STEL: 442 mg/m ³ 15 m	inutes.	
	STEL: 100 ppm 15 min		
	TWA: 221 mg/m³ 8 hou	Irs.	
	TWA: 50 ppm 8 hours.		
2-methylpropan-1-ol	ACGIH TLV (United Sta	tes, 1/2022).	
	TWA: 152 mg/m ³ 8 hou	Irs.	
	TWA: 50 ppm 8 hours.		
ethylbenzene	EU OEL (Europe, 1/202	2). Absorbed through skin.	
1	English (GB)	Suriname	7/21

Code : 00273019	Date of issue/Date of revision	: 18 September 2023
SIGMATHERM 230 HARDENER		
	STEL: 884 mg/m ³ 15 minutes.	
	STEL: 200 ppm 15 minutes.	
	TWA: 442 mg/m ³ 8 hours.	
	TWA: 100 ppm 8 hours.	
m-phenylenebis(methylamine)	ACGIH TLV (United States, 1/2022). Absorbe	d through skin.
	C: 0.018 ppm	•
bisphenol A	EU OEL (Europe, 1/2022).	
	TWA: 2 mg/m³ 8 hours. Form: Inhalable fraction	on

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs

Product/ingredient name	Туре	Exposure	Value	Population	Effects
enzyl alcohol	DNEL	Long term Oral	4 mg/kg bw/day	General	Systemic
				population	
	DNEL	Long term Dermal	4 mg/kg bw/day	General	Systemic
				population	
	DNEL	Long term Inhalation	5.4 mg/m³	General	Systemic
	DUE			population	а. н. н.
	DNEL	Long term Dermal Short term Oral	8 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Orai	20 mg/kg bw/day	General	Systemic
	DNEL	Short term Dermal	20 mg/kg bu/dov	population General	Sustamia
	DNEL	Short term Dermai	20 mg/kg bw/day	population	Systemic
	DNEL	Long term Inhalation	22 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	27 mg/m ³	General	Systemic
			27 mg/m	population	Oysternic
	DNEL	Short term Dermal	40 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	110 mg/m ³	Workers	Systemic
vlene	DNEL	Short term Inhalation	260 mg/m ³	General	Systemic
,				population	,
	DNEL	Short term Inhalation	260 mg/m ³	General	Local
				population	
	DNEL	Long term Dermal	125 mg/kg bw/day	General	Systemic
				population	
	DNEL	Long term Inhalation	65.3 mg/m³	General	Systemic
				population	
	DNEL	Long term Oral	12.5 mg/kg bw/day	General	Systemic
	DNE		004	population	0
	DNEL	Long term Inhalation	221 mg/m ³	Workers	Systemic
	DNEL DNEL	Short term Inhalation Long term Inhalation	442 mg/m ³ 221 mg/m ³	Workers Workers	Systemic Local
	DNEL	Short term Inhalation	442 mg/m ³	Workers	Local
	DNEL	Long term Dermal	212 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	65.3 mg/m ³	General	Local
	DITLE	Long term initialation	00.0 mg/m	population	Loodi
	DNEL	Short term Inhalation	260 mg/m ³	General	Local
				population	
	DNEL	Short term Inhalation	260 mg/m ³	General	Systemic
			0	population	
	DNEL	Long term Inhalation	221 mg/m³	Workers	Local
	DNEL	Long term Oral	12.5 mg/kg bw/day	General	Systemic
				population	
		English (GB)	Surinamo	•	8/21

Code : 00273019		Date of issue	e/Date of revision	: 18 Se 2023	ptember
IGMATHERM 230 HARDENER					
	DNEL	Long term Inhalation	65.3 mg/m ³	General	Systemic
		_	-	population	-
	DNEL	Long term Dermal	125 mg/kg bw/day	General	Systemic
				population	
	DNEL	Long term Dermal	212 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	221 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	442 mg/m³	Workers	Local
	DNEL	Short term Inhalation	442 mg/m ³	Workers	Systemic
2-methylpropan-1-ol	DNEL	Long term Inhalation	55 mg/m³	General	Local
				population	
	DNEL	Long term Inhalation	310 mg/m ³	Workers	Local
2,4,6-tris(dimethylaminomethyl)phenol	DNEL	Long term Oral	0.075 mg/kg bw/	General	Systemic
			day	population	
	DNEL	Short term Dermal	0.075 mg/kg bw/	General	Systemic
			day	population	0
	DNEL	Long term Dermal	0.075 mg/kg bw/	General	Systemic
	DNIEL		day	population	0
	DNEL	Short term Inhalation	0.13 mg/m ³	General	Systemic
		Long town inholotion	0.12 mag/ma3	population	Curatamia
	DNEL	Long term Inhalation	0.13 mg/m ³	General	Systemic
		Long town Downed		population	Curatamia
	DNEL	Long term Dermal	0.15 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0.53 mg/m ³	Workers	Systemic
	DNEL DNEL	Short term Dermal Short term Inhalation	0.6 mg/kg bw/day 2.1 mg/m³	Workers Workers	Systemic
N (2 (trimethewwaily))	DNEL			General	Systemic Local
N-(3-(trimethoxysilyl)propyl) ethylenediamine	DINEL	Long term Inhalation	0.1 mg/m³		LUCAI
euryieneulamine	DNEL	Long term Inhalation	0.6 mg/m ³	population Workers	Local
	DNEL	Short term Inhalation	4 mg/m ³	General	Local
	DINEL		4 mg/m	population	LUCAI
	DNEL	Short term Inhalation	5.36 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	50 mg/m ³	General	Systemic
	DINCL		50 mg/m	population	Systemic
	DNEL	Short term Inhalation	260 mg/m³	Workers	Systemic
	DNEL	Long term Oral	8 mg/kg bw/day	General	Systemic
	DITLE		o mg/ng om/day	population	e yotonno
	DNEL	Long term Inhalation	50 mg/m³	General	Systemic
	0.122		oo mg/m	population	
	DNEL	Long term Inhalation	260 mg/m ³	Workers	Systemic
ethylbenzene	DNEL	Long term Oral	1.6 mg/kg bw/day	General	Systemic
, ,		5		population	,
	DNEL	Long term Inhalation	15 mg/m ³	General	Systemic
		5	l i	population	,
	DNEL	Long term Inhalation	77 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	180 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	293 mg/m ³	Workers	Local
	DMEL	Long term Inhalation	442 mg/m ³	Workers	Local
	DMEL	Short term Inhalation	884 mg/m ³	Workers	Systemic
m-phenylenebis(methylamine)	DNEL	Long term Inhalation	0.2 mg/m ³	Workers	Local
	DNEL	Long term Dermal	0.33 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	1.2 mg/m ³	Workers	Systemic
bisphenol A	DNEL	Long term Inhalation	2 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	2 mg/m ³	Workers	Systemic
1	DNEL	I ong term Inhalation	2 mg/m ³	Workers	Local

English (GB)

Long term Inhalation

Long term Inhalation

Short term Inhalation

Long term Dermal

Short term Dermal

2 mg/m³

2 mg/m³

1 mg/m³

day

day

0.031 mg/kg bw/

0.031 mg/kg bw/

Suriname

DNEL

DNEL

DNEL

DNEL

DNEL

Local

Local

Systemic

Systemic

Systemic

Workers

Workers

Workers

Workers

General population

ode : 002	73019		Date of issue	/Date of revision	: 18 Se 2023	ptember
IGMATHERM 230	HARDENER					
	DNE	EL	Short term Inhalation	1 mg/m ³	General	Systemic
					population	
	DNE	ΞL	Long term Inhalation	1 mg/m³	General	Local
	DNE	=1	Short term Inhalation	1 mg/m³	population General	Local
	DNE			r mg/m	population	LUCAI
	DNE	EL	Long term Dermal	0.002 mg/kg bw/	General	Systemic
			g	day	population	-)
	DNE	ΕL	Short term Dermal	0.002 mg/kg bw/	General	Systemic
				day	population	-
	DNE	EL	Long term Oral	0.004 mg/kg bw/	General	Systemic
		-1	Oh aut tauna On al	day	population	0
	DNE	ΞL	Short term Oral	0.004 mg/kg bw/ day	General population	Systemic
	DNE	=1	Short term Dermal	0.0019 mg/kg bw/	General	Systemic
	BII			day	population	Oysternie
	DNE	EL	Long term Dermal	0.0019 mg/kg bw/	General	Systemic
				day	population	,
	DNE	EL	Short term Oral	0.004 mg/kg bw/	General	Systemic
				day	population	
	DNE	ΞL	Long term Oral	0.004 mg/kg bw/	General	Systemic
	DNE	=1	Short term Dermal	day 0.031 mg/kg bw/	population Workers	Svotomic
	DINE	ΞL	Short territ Dermai	day	WOIKEIS	Systemic
	DNE	ΞL	Long term Dermal	0.031 mg/kg bw/	Workers	Systemic
			g	day		-)
	DNE	EL	Short term Inhalation	1 mg/m ³	General	Local
					population	
	DNE	EL	Long term Inhalation	1 mg/m³	General	Local
				4	population	0
	DNE	ΞL	Short term Inhalation	1 mg/m ³	General	Systemic
	DNE	=1	Short term Inhalation	2 mg/m³	population Workers	Local
	DNE		Long term Inhalation	2 mg/m^3	Workers	Local
	DNE		Short term Inhalation	2 mg/m ³	Workers	Systemic
	DNE		Long term Inhalation	2 mg/m ³	Workers	Systemic
	DNE	EL	Long term Inhalation	1 mg/m ³	General	Systemic
			-		population	-
salicylic acid	DNE	EL	Long term Oral	1 mg/kg bw/day	General	Systemic
				4	population	0
	DNE	ΞL	Long term Dermal	1 mg/kg bw/day	General	Systemic
	DNE	=1	Long term Dermal	2.3 mg/kg bw/day	population Workers	Systemic
	DNE		Short term Oral	4 mg/kg bw/day	General	Systemic
				·	population	
	DNE	EL	Long term Inhalation	4 mg/m ³	General	Systemic
			-		population	
	DNE		Long term Inhalation	5 mg/m ³	Workers	Local
	DNE		Long term Inhalation	5 mg/m ³	Workers	Systemic
3-aminopropyldin	ethylamine DNE	ΞL	Long term Inhalation	1.2 mg/m ³	Workers	Systemic

PNECs

Code	: 00273019	Date of issue/Date of revision	: 18 September
			2023

SIG

Product/ingredient name	Туре	Compartment Detail	Value	Method Detail
x ylene	-	Fresh water	0.327 mg/l	-
	-	Marine water	0.327 mg/l	-
	-	Sewage Treatment Plant	6.58 mg/l	-
	-	Fresh water sediment	12.46 mg/kg dwt	-
	-	Marine water sediment	12.46 mg/kg dwt	-
	-	Soil	2.31 mg/kg	-
2-methylpropan-1-ol	-	Fresh water	0.4 mg/l	Assessment Factors
	-	Marine water	0.04 mg/l	Assessment Factors
	-	Sewage Treatment Plant	10 mg/l	Assessment Factors
	-	Fresh water sediment	1.56 mg/kg dwt	Equilibrium Partitioning
	-	Marine water sediment	0.156 mg/kg dwt	-
	-	Soil	0.076 mg/kg dwt	Equilibrium Partitioning
ethylbenzene	-	Fresh water	0.1 mg/l	Assessment Factors
	-	Marine water	0.01 mg/l	Assessment Factors
	-	Sewage Treatment Plant	9.6 mg/l	Assessment Factors
	-	Fresh water sediment	13.7 mg/kg dwt	Equilibrium Partitioning
	-	Marine water sediment	1.37 mg/kg dwt	Equilibrium Partitioning
	-	Soil	2.68 mg/kg dwt	Equilibrium Partitioning
	-	Secondary Poisoning	20 mg/kg	-
bisphenol A	-	Fresh water	0.018 mg/l	Sensitivity Distribution
	-	Marine water	0.018 mg/l	Sensitivity Distribution
	-	Sewage Treatment Plant		Assessment Factors
	-	Fresh water sediment	1.2 mg/kg dwt	Assessment Factors
	-	Marine water sediment	0.24 mg/kg dwt	Assessment Factors
	-	Soil	3.7 mg/kg dwt	Assessment Factors
3-aminopropyldimethylamine	-	Fresh water	0.034 mg/l	Assessment Factors
	-	Marine water	0.003 mg/l	Assessment Factors
	-	Sewage Treatment Plant		Assessment Factors
	-	Fresh water sediment	0.221 mg/kg dwt	Equilibrium Partitioning
	-	Marine water sediment	0.022 mg/kg dwt	Equilibrium Partitioning
	-	Soil	0.024 mg/kg dwt	Equilibrium Partitioning

Eye/face protection	:	showers are close to the workstation location Chemical splash goggles and face shield.		
Skin protection	1			
Hand protection	:	Chemical-resistant, impervious gloves compl worn at all times when handling chemical pro necessary. Considering the parameters spec during use that the gloves are still retaining the noted that the time to breakthrough for any gl glove manufacturers. In the case of mixtures protection time of the gloves cannot be accur frequently repeated contact may occur, a glove (breakthrough time greater than 480 minutes When only brief contact is expected, a glove	ducts if a risk assessment indica cified by the glove manufacturer, neir protective properties. It shou love material may be different for s, consisting of several substance rately estimated. When prolonge ve with a protection class of 6 according to EN 374) is recomm	tes this is check Id be different es, the d or nended.
		English (GB)	Suriname	11/21

Code	: 00273019		Date of issue/Date of revision	: 18 September 2023
SIGMATHE	RM 230 HARDEN	ER		
			(breakthrough time greater than 30 minutes according to EN The user must check that the final choice of type of glove sel- product is the most appropriate and takes into account the pa as included in the user's risk assessment.	ected for handling this
Gloves		:	nitrile neoprene	
Body pro	otection	:	Personal protective equipment for the body should be selected performed and the risks involved and should be approved by handling this product. When there is a risk of ignition from sta static protective clothing. For the greatest protection from sta should include anti-static overalls, boots and gloves. Refer to 1149 for further information on material and design requirement	a specialist before atic electricity, wear anti- atic discharges, clothing b European Standard EN
Other sk	in protection	:	Appropriate footwear and any additional skin protection meas based on the task being performed and the risks involved and specialist before handling this product.	
Respirato	ory protection	:	Respirator selection must be based on known or anticipated on hazards of the product and the safe working limits of the sele are exposed to concentrations above the exposure limit, they certified respirators. Use a properly fitted, air-purifying or air- with an approved standard if a risk assessment indicates this respirator conforming to EN140. Filter type: organic vapour filter P3	cted respirator. If workers must use appropriate, fed respirator complying is necessary. Wear a
Environm controls	ental exposure	:	Emissions from ventilation or work process equipment should they comply with the requirements of environmental protection	

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

will be necessary to reduce emissions to acceptable levels.

cases, fume scrubbers, filters or engineering modifications to the process equipment

9.1 Information on basic physical and chemical properties

		English (GB)		Surina	me	12/21
cold water		Not soluble				
Media		Result				
Solubility(ies)	:					
Viscosity	:	Kinematic (40°C): <14 mm²/s				
рН	:	Not applicable. insoluble in wate	r.	-	·	
Decomposition temperature	:	Stable under recommended stor	rage and	handling condi	tions (see Section	า 7).
		2,4,6-tris(dimethylaminomethyl)phenol	382	719.6	EU A.15	
Auto-ignition temperature	:	Ingredient name	°C	°F	Method	
Flash point	:	Closed cup: 28°C				
Upper/lower flammability or explosive limits	-	Greatest known range: Lower: 1	.3% Upp	er: 13% (benz	yl alcohol)	
Flammability		Not available.				
nitial boiling point and boiling range						
nitial bailing point and		-52.61°C (-62.7°F) >37.78°C	1 7		, 3	5
Melting point/freezing point	:	May start to solidify at the follow data for the following ingredient:	• •	· · · · · · · · · · · · · · · · · · ·	,	
Odour threshold	1	Not available.				
Odour	1	Amine-like. [Strong]				
Colour	1	Clear.				
Physical state	:	Liquid.				
<u>Appearance</u>						

Code	: 00273019	Date of issue/Date of revision	: 18 September
			0000

SIGMATHERM 230 HARDENER

2023

SECTION 9: Physical and chemical properties

Partition coefficient: n-octand water	ol/ :	Not applicable.						
Vapour pressure	:		Vapou	ur Press	sure at 20°C	Vapour pressure at 50°C		
		Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
		2-methylpropan-1-ol	<12	<1.6	DIN EN 13016-2			
Evaporation rate	:	Highest known value butyl acetate	: 0.84 (etl	nylbenze	ene) Weighteo	d average	e: 0.42co	mpared with
Relative density	:	1						
Vapour density	:	Highest known value 1)	: 3.7 (Air	= 1) (b	enzyl alcohol).	Weighte	ed avera	ge: 3.55 (Air =
Explosive properties	:	The product itself is a vapour or dust with a	•		the formation	of an exp	olosible n	nixture of
Oxidising properties	:	Product does not pre	esent an o	xidizing	hazard.			
Particle characteristics								
Median particle size	:	Not applicable.						
9.2 Other information								

No additional information.

SECTION 10: Stability	y and reactivity
10.1 Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: The product is stable.
10.3 Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.
10.5 Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.
10.6 Hazardous decomposition products	: Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides Formaldehyde. metal oxide/oxides

SECTION 11: Toxicological information

11.1 Information on toxicological effects Acute toxicity

Code

: 00273019

Date of issue/Date of revision

: 18 September 2023

SIGMATHERM 230 HARDENER

SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
penzyl alcohol	LC50 Inhalation Dusts and	Rat	>4178 mg/m ³	4 hours
	mists			
	LD50 Dermal	Rabbit	2000 mg/kg	-
	LD50 Oral	Rat	1.23 g/kg	-
xylene	LD50 Dermal	Rabbit	1.7 g/kg	-
	LD50 Oral	Rat	4.3 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	-
2,4,6-tris(dimethylaminomethyl)phenol	LD50 Dermal	Rabbit	1.28 g/kg	-
	LD50 Dermal	Rat	1280 mg/kg	-
	LD50 Oral	Rat	1200 mg/kg	-
N-(3-(trimethoxysilyl)propyl)	LD50 Dermal	Rabbit	>2000 mg/kg	-
ethylenediamine				
	LD50 Oral	Rat	2413 mg/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	-
m-phenylenebis(methylamine)	LC50 Inhalation Gas.	Rat	700 ppm	1 hours
	LD50 Dermal	Rat - Male,	>3100 mg/kg	-
		Female		
	LD50 Oral	Rat	930 mg/kg	-
bisphenol A	LD50 Dermal	Rabbit	3600 mg/kg	-
•	LD50 Oral	Rat	3.25 g/kg	-
salicylic acid	LD50 Oral	Rat	0.891 g/kg	-
3-aminopropyldimethylamine	LD50 Dermal	Rabbit	>1000 mg/kg	-
	LD50 Oral	Rat	410 mg/kg	-

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

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
xylene 2,4,6-tris(dimethylaminomethyl)phenol m-phenylenebis(methylamine)	Skin - Moderate irritant Skin - Visible necrosis Skin - Severe irritant	Rabbit Rabbit Rat	- -	24 hours 500 mg 4 hours 4 hours	- 7 days 4 hours

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 nameRoute of
exposureSpeciesResultm-phenylenebis(methylamine)skinMouseSensitising

Conclusion/Summary	
Skin	: There are no data available on the mixture itself.
Respiratory	: There are no data available on the mixture itself.
<u>Mutagenicity</u>	
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	

English	(GB)
---------	------

Code	: 00273019	Date of issue/Date of revision	: 18 September
			2023

SIGMATHERM 230 HARDENER

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)

Product/ingredient name	Category	Route of exposure	Target organs
xylene 2-methylpropan-1-ol	Category 3 Category 3 Category 3	-	Respiratory tract irritation Respiratory tract irritation Narcotic effects
N-(3-(trimethoxysilyl)propyl)ethylenediamine bisphenol A	Category 3 Category 3	-	Respiratory tract irritation Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
ethylbenzene	Category 2	-	hearing organs

Aspiration hazard

Product/ingredient name	Result
xylene ethylbenzene	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1
Information on likely : Not available.	

routes of exposure

Potential acute health effects

Inhalation	May cause respiratory irritation.
Ingestion	: May be fatal if swallowed and enters airways.
Skin contact	: Causes severe burns. Defatting to the skin. May cause an allergic skin reaction.
Eye contact	: Causes serious eye damage.
Symptoms related to the phy	vsical, chemical and toxicological characteristics
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing reduced foetal weight increase in foetal deaths skeletal malformations
Ingestion	: Adverse symptoms may include the following: stomach pains nausea or vomiting reduced foetal weight increase in foetal deaths skeletal malformations
Skin contact	: Adverse symptoms may include the following: pain or irritation redness dryness cracking blistering may occur reduced foetal weight increase in foetal deaths skeletal malformations

Code : 00273019		Date of issue/Date of revision: 18 September2023			
SIGMATHERM 230 HARDENER					
SECTION 11: Toxico	lo	gical information			
Eye contact	:	Adverse symptoms may include the following: pain watering redness			
Delayed and immediate effe	ecte	<u>s as well as chronic effects from short and long-term exposure</u>			
Short term exposure					
Potential immediate effects	:	Not available.			
Potential delayed effects	1	Not available.			
Long term exposure					
Potential immediate effects	:	Not available.			
Potential delayed effects	:	Not available.			
Potential chronic health eff	ect	<u>s</u>			
Not available.					
Conclusion/Summary	:	Not available.			
General	:	Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/o 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	1	No known significant effects or critical hazards.			
Reproductive toxicity	1	May damage fertility.			

Other information : Not available.

Prolonged or repeated contact may dry skin and cause irritation. 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. Trimethoxysilanes are capable of forming methanol if hydrolyzed or ingested. If swallowed, methanol may be harmful or fatal or cause blindness. Contains a substance that may emit formaldehyde if stored beyond its shelf life and/or during cure at curing temperatures greater than 60C/140F. Avoid contact with skin and clothing. Exposure to amine vapor has been reported to cause transient corneal edema described as blue haze, halo effect, foggy or blurred vision for several hours. This condition is typically temporary and does not cause permanent visual effects. When the proper eye protection specified in Section 8 is worn, exposure is significantly reduced and the condition has not been observed.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

May cause endocrine disruption.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
₽-methylpropan-1-ol	Acute EC50 1100 mg/l	Daphnia	48 hours
2,4,6-tris(dimethylaminomethyl)phenol	Acute LC50 175 mg/l	Fish	96 hours
N-(3-(trimethoxysilyl)propyl)ethylenediamine	EC50 597 mg/l	Fish	96 hours
ethylbenzene	Acute EC50 1.8 mg/l Fresh water	Daphnia	48 hours
	Chronic NOEC 1 mg/l Fresh water	Daphnia - Ceriodaphnia dubia	-
bisphenol A	Acute LC50 0.885 mg/l Fresh	Crustaceans	48 hours
	English (GB)	Suriname	16/21

Code	: 00273019	Date of issue/Date of revision	: 18 September
			2023

SIGMATHERM 230 HARDENER

SECTION 12: Ecological information

	water		
	Acute LC50 8.11 mg/l Fresh	Daphnia - <i>Daphnia</i>	48 hours
	water	<i>magna</i> - Neonate	
	Acute LC50 4.6 mg/l Fresh	Fish	96 hours
	water		
	Chronic NOEC 0.000174 mg/	Fish	5 months
	I Fresh water		
salicylic acid	Acute EC50 1147.57 mg/l	Daphnia - <i>Daphnia</i>	48 hours
	Fresh water	<i>longispina</i> - Neonate	
	Chronic NOEC 5.6 mg/l	Daphnia - <i>Daphnia</i>	21 days
	Fresh water	<i>magna</i> - Neonate	
3-aminopropyldimethylamine	Acute LC50 122 mg/l	Fish	96 hours

Conclusion/Summary

: There are no data available on the mixture itself.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
ethylbenzene		79 % - Readily - 10 days	-	-
3-aminopropyldimethylamine	OECD 301D	69 % - Readily - 20 days	-	-

Conclusion/Summary : There are no data available on the mixture itself. **Product/ingredient name** Aquatic half-life **Photolysis Biodegradability** penzyl alcohol Readily xylene Readily _ _ ethylbenzene Readily _ -_ Readily bisphenol A _ 3-aminopropyldimethylamine Readily _

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
penzyl alcohol	0.87	-	Low
xylene	3.12	7.4 to 18.5	Low
2-methylpropan-1-ol	1	-	Low
2,4,6-tris(dimethylaminomethyl)phenol	0.219	-	Low
ethylbenzene	3.6	79.43	Low
m-phenylenebis(methylamine)	0.18	2.69	Low
bisphenol A	3.4	43.65	Low
salicylic acid	2.21 to 2.26	-	Low
3-aminopropyldimethylamine	-0.352	-	Low

12.4 Mobility in soil	
Soil/water partition	: Not available.
coefficient (Koc)	
Mobility	: Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

May cause endocrine disruption.

English (GB)

Code	: 00273019	Date of issue/Date of revision	: 18 September
			2023

SIGMATHERM 230 HARDENER

SECTION 12: Ecological information

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal	: 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.
---------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Hazardous waste

European waste catalogue (EWC)

: Yes.

Waste code	Waste designation
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances
Packaging	
Methods of disposal	: The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
Type of packaging	European waste catalogue (EWC)
Container	15 01 06 mixed packaging
Special precautions	: 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

	ADR/RID	IMDG	ΙΑΤΑ
14.1 UN number or ID number	UN3469	UN3469	UN3469
14.2 UN proper shipping name	PAINT, FLAMMABLE, CORROSIVE	PAINT, FLAMMABLE, CORROSIVE	PAINT, FLAMMABLE, CORROSIVE
14.3 Transport hazard class(es)	3 (8)	3 (8)	3 (8)
14.4 Packing group	Ш		111
14.5 Environmental hazards	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.
	1	English (GB)	Suriname 18/21

Conforms to Reg 2020/878	gulation (EC) No. 1907/2006 (REAC	H), Annex II, as amended by Com	mission Regulation (EU)
Code : C	0273019	Date of issue/Date of revis	ion : 18 September 2023
SIGMATHERM 2	30 HARDENER		
SECTION 1	4: Transport information		
Marine pollutant substances	Not applicable.	(Formaldehyde, polymer with N,N-dimethyl- 1,3-propanediamine and phenol, bisphenol A)	Not applicable.
Additional infor	notion		
ADR/RID		substance mark is not required wher	n transported in sizes of ≤5 L or
Tunnel code	: (D/Ĕ)		
IMDG	-	required when transported in sizes	-
ΙΑΤΑ	: The environmentally hazardous s regulations.	substance mark may appear if requi	red by other transportation
14.6 Special pre user		ser's premises: always transport in Ensure that persons transporting th t or spillage.	
14.7 Transport i according to IM instruments			

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

Intrinsic property	Ingredient name	Status	Reference number	Date of revision
Toxic to reproduction	4,4'-isopropylidenediphenol	Recommended	ED/01/2018	10/1/2019
Endocrine disrupting properties for human health	4,4'-isopropylidenediphenol	Recommended	ED/01/2018	10/1/2019
Endocrine disrupting properties for environment	4,4'-isopropylidenediphenol	Recommended	ED/01/2018	10/1/2019

Annex XVII - Restrictions : Restricted to professional users. on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Other national and international regulations.

Ozone depleting substances (1005/2009/EU) Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

English (GB)

Code	: 00273019	Date of issue/Date of revision	: 18 September 2023

SIGMATHERM 230 HARDENER

SECTION 15: Regulatory information

Category	
P5c E2	
2 Chamical asfaty	No Chamical Safety Assessment has been carried out

15.2 Chemical safety

: No Chemical Safety Assessment has been carried out.

assessment

SECTION 16: Other information

Indicates	information that	has changed fro	om previously issued	l version.
-----------	------------------	-----------------	----------------------	------------

Abbreviations and acronyms	 ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement PNEC = Predicted No Effect Concentration RRN = REACH Registration Number
----------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classi	fication		Justification	
Flam. Liq. 3, H226 Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Repr. 1B, H360F STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411		On basis of te Calculation m Calculation m Calculation m Calculation m Calculation m Calculation m Calculation m	nethod nethod nethod nethod nethod nethod	
Full text of abbreviated H statements	H226FlammaH302HarmfulH304May be fH312HarmfulH314CausesH315CausesH317May cauH318CausesH319CausesH322HarmfulH335May cauH360FMay darH361dSuspectH373May cauH400Very toxH410Very toxH411Toxic toH412Harmful	ammable liquid and vapour. ble liquid and vapour. if swallowed. fatal if swallowed and en in contact with skin. severe skin burns and e skin irritation. use an allergic skin react serious eye damage. serious eye damage. serious eye irritation. if inhaled. use respiratory irritation. ise drowsiness or dizzine nage fertility. ed of damaging the unber use damage to organs th ic to aquatic life. ic to aquatic life with long aquatic life with long last to aquatic life with long to aquatic life with long	ters airways. ye damage. ion. ess. orn child. rough prolonged or repeated exp g lasting effects. ting effects. asting effects.	oosure.
Full text of classifications [CLP/GHS]	: Acute Tox. 4 Aquatic Acute 1 Aquatic Chronic 1 Aquatic Chronic 2 Aquatic Chronic 3 Asp. Tox. 1 Eye Dam. 1	SHORT-TERM LONG-TERM LONG-TERM LONG-TERM ASPIRATION	CITY - Category 4 1 (ACUTE) AQUATIC HAZARD - (CHRONIC) AQUATIC HAZARD (CHRONIC) AQUATIC HAZARD (CHRONIC) AQUATIC HAZARD HAZARD - Category 1 E DAMAGE/EYE IRRITATION - (Category 1 Category 2 Category 3
		English (GB)	Suriname	20/21

Code : 00273019		Date of issue/Date of revision: 18 Septen2023	nber
SIGMATHERM 230 HARDE	ENER		
SECTION 16: Othe	r information		
	Eye Irrit. 2 Flam. Liq. 2 Flam. Liq. 3 Repr. 1B Repr. 2 Skin Corr. 1B Skin Corr. 1C Skin Irrit. 2 Skin Sens. 1 Skin Sens. 1B STOT RE 2 STOT SE 3	SERIOUS EYE DAMAGE/EYE IRRITATION - Cate FLAMMABLE LIQUIDS - Category 2 FLAMMABLE LIQUIDS - Category 3 REPRODUCTIVE TOXICITY - Category 1B REPRODUCTIVE TOXICITY - Category 2 SKIN CORROSION/IRRITATION - Category 1B SKIN CORROSION/IRRITATION - Category 1C SKIN CORROSION/IRRITATION - Category 2 SKIN SENSITISATION - Category 1 SKIN SENSITISATION - CATEGORY 1 SPECIFIC TARGET ORGAN TOXICITY - REPEAT EXPOSURE - Category 2 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3	
<u>History</u> Date of issue/ Date of revision	: 18 September 2023		
Date of previous issue Prepared by Version	: 8 December 2022 : EHS : 5		

Disclaimer

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 us, 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.