Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878

SAFETY DATA SHEET

FOR PROFESSIONAL and/or INDUSTRIAL USE ONLY

EPIKURE™ Curing Agent MGS BPH 1355G

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

1.1 Product identifier

Product name	:	EPIKURE™ Curing Agent MGS BPH 1355G
SDS Number	:	16S-00327
Product type	:	Curing Agent
Other means of identification	:	UFI: 2VD3-70TS-X005-F5V8

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

Product use Epoxy Resin Systems

Identified uses
Not applicable.

Uses advised against
Not applicable.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier/Importer	:	Westlake Epoxy B.V. Seattleweg 17 3195 ND Pernis - Rotterdam The Netherlands
Contact person	:	epoxyservice@westlake.com
Telephone	:	General information +31 (0) 10 295 4011

1.4 Emergency telephone number

Supplier	:	CARECHEM24
Telephone number	:	+44 (0) 1235 239 670

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Acute Tox. 4 H332
Skin Corr./Irrit. 1B H314

Eye Dam./Irrit. 1 H318
Skin Sens. 1 H317
Repr. 1B H360
Aquatic Chronic 2 H411

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

2.2 Label elements

Hazard pictograms :

Signal word : Danger

Hazard statements :
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
Harmful if inhaled.
May damage fertility or the unborn child.
Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention :
Obtain special instructions before use.
Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.
Avoid breathing dust.

Response :
Collect spillage.
IF exposed or concerned:
Get medical advice or attention.
IF INHALED:
Immediately call a POISON CENTER or doctor.
IF SWALLOWED:
Immediately call a POISON CENTER or doctor.
Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair):
Take off immediately all contaminated clothing. Rinse skin with water.
Immediately call a POISON CENTER or doctor.
Wash contaminated clothing 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.
Immediately call a POISON CENTER or doctor.

Storage : Store locked up.

Disposal :
Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients :
Poly(oxypropylene) diamine
3-aminomethyl-3,5,5-trimethylcyclohexylamine
Formaldehyde, oligomeric reaction products with 4,4'-

isopropylidenediphenol and diethylenetriamine
Triethylenetetramine
2,2'-iminodiethylamine
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5
bisphenol A
4-nonylphenol, branched

Supplemental label elements : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification : The product contains a substance that has been identified as having endocrine disrupting properties according to (EU)2017/2100 or (EU)2018/605 or is included in the Candidate List of Substances of Very High Concern according to Article 59(1) in (EU)1907/2006 due to this property (see section 3).

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Fatty Acids, C18-Unsatd., Dimers, Polymers with Tall-Oil Fatty Acids and Triethylenetetramine	RRN : Polymer CAS : 68082-29-1	>= 25 - <= 50	Skin Irrit. 2, H315 Eye Irrit. 2, H319	-	[1]
Poly(oxypropylene) diamine	EC : Polymer CAS : 9046-10-0	>= 10 - <= 23	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Chronic 3, H412	ATE [Oral] = 1,100 mg/kg ATE [Dermal] = 1,550 mg/kg	[1]
3-aminomethyl-3,5,5-trimethylcyclohexylamine	RRN : 01-2119514687-32 EC : 220-666-8 CAS : 2855-13-2 Index : 612-067-00-9	>= 5 - <= 10	Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317	ATE [Oral] = 1,030 mg/kg	[1] [2]
silicon dioxide	RRN : 01-2119379499 EC : 231-545-4 CAS : 7631-86-9	>= 5 - <= 10	Not classified.	-	[2]
Formaldehyde, oligomeric reaction	RRN : 01-	>= 5 - <= 10	Skin Corr. 1B, H314 Eye Dam. 1, H318	-	[1]

products with 4,4'-isopropylidenediphenol and diethylenetriamine	2120769506-44 EC : 500-263-6 CAS : 77138-45-5		Skin Sens. 1, H317 Repr. 2, H361 STOT SE 3, H335 (Respiratory tract irritation)		
benzyl alcohol	RRN : 01-2119492630-38 EC : 202-859-9 CAS : 100-51-6 Index : 603-057-00-5	> 0 - <= 5	Acute Tox. 4, H302 Acute Tox. 4, H332 Eye Irrit. 2, H319	ATE [Oral] = 1,620 mg/kg ATE [Inhalation (dusts and mists)] = 1.5 mg/l	[1] [2]
Triethylenetetramine	RRN : 01-2119487919-13 EC : 292-588-2 CAS : 90640-67-8 Index : 612-059-00-5	> 0 - <= 5	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412	ATE [Oral] = 1,716 mg/kg ATE [Dermal] = 1,465 mg/kg	[1] [2]
2,2'-iminodiethylamine	RRN : 01-2119473793-27 EC : 203-865-4 CAS : 111-40-0 Index : 612-058-00-X	> 0 - <= 3	Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 2, H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1B, H317 STOT SE 3, H335 (Respiratory tract irritation)	ATE [Oral] = 1,080 mg/kg ATE [Dermal] = 1,054 mg/kg ATE [Inhalation (vapours)] = 0.5 mg/l	[1] [2]
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5	RRN : 01-2119965165-33 CAS : 38294-64-3	> 0 - <= 3	Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412	-	[1]
bisphenol A	RRN : 01-2119457856-23 EC : 201-245-8 CAS : 80-05-7 Index : 604-030-00-0	> 0 - < 1	Eye Dam. 1, H318 Skin Sens. 1, H317 Repr. 1B, H360F STOT SE 3, H335 (Respiratory tract irritation) Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 10	[1] [2] [3]
salicylic acid	RRN : 01-2119486984-17 EC : 200-712-3 CAS : 69-72-7	> 0 - < 1	Acute Tox. 4, H302 Eye Dam. 1, H318 Repr. 2, H361d	ATE [Oral] = 891 mg/kg	[1]
4-nonylphenol, branched	RRN : 01-2119510715-45 EC : 284-325-5 CAS : 84852-15-3 Index : 601-053-00-8	> 0 - <= 0.94	Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Repr. 2, H361fd Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 1,300 mg/kg M [Acute] = 10 M [Chronic] = 10	[1] [3]

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

Type

[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.

Particle characteristics

Product/ingredient name	Size distribution	Shape and aspect ratio	Crystallinity	Surface functionalization/treatment	Specific surface area	Additional information
silicon dioxide	Not available	Not available	Not available	Not available	Not available	Not available

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Inhalation : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. 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.

Skin contact : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Protection of first aid personnel : 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 symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact : Causes serious eye damage.
Inhalation : Harmful if inhaled.
Skin contact : Causes severe burns. May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
stomach pains
reduced fetal weight
increase in fetal 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, CO2, alcohol-resistant foam or water spray (fog).
Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and

prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
metal oxide/oxides

5.3 Advice for firefighters

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.

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.

Additional information : Not available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. 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 spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and material for containment and cleaning up

Small spill : Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large spill : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

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

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see section 8 of SDS). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. 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.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10 of SDS) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

Recommendations : Not available

Industrial sector specific solutions : Not available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
3-aminomethyl-3,5,5-trimethylcyclohexylamine	**DFG MAK-Werte Liste (2014-06-23)** Notes: Skin sensitizer
silicon dioxide	**TRGS900 AGW (2008-07-14)** **TWA** 4 mg/m3 Form: Inhalable fraction **DFG MAK-Werte Liste (2002-07-01)** Form: respirable fraction
benzyl alcohol	**TRGS900 AGW (2017-09-01)** **PEAK** 44 mg/m3 10 ppm Notes: Absorbed through skin. **TWA** 22 mg/m3 5 ppm

	Notes: Absorbed through skin. **DFG MAK-Werte Liste (2016-07-08)** **TWA - TLV and PEL** 22 mg/m3 5 ppm Notes: Absorbed through skin. **PEAK** 44 mg/m3 10 ppm Notes: Absorbed through skin.
Triethylenetetramine	**DFG MAK-Werte Liste (2014-06-23)** Notes: Skin sensitizer
2,2'-iminodiethylamine	**DFG MAK-Werte Liste (2008-07-01)** Notes: Skin sensitizer
bisphenol A	**TRGS900 AGW (2006-01-01)** **TWA** 5 mg/m3 Form: Inhalable fraction **PEAK** 5 mg/m3 Form: Inhalable fraction **DFG MAK-Werte Liste (2002-07-01)** **PEAK** 5 mg/m3 Form: Inhalable fraction **TWA - TLV and PEL** 5 mg/m3 Form: Inhalable fraction **EU OEL (2017-02-21)** **TWA - TLV and PEL** 2 mg/m3 Form: Inhalable fraction

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. 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/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
benzyl alcohol	DNEL	Short term Oral	20 mg/kg bw/day	General population	Systemic
benzyl alcohol	DNEL	Long term Inhalation	22 mg/m³	Workers	Systemic
benzyl alcohol	DNEL	Short term Inhalation	110 mg/m³	Workers	Systemic
benzyl alcohol	DNEL	Long term Dermal	8 mg/kg bw/day	Workers	Systemic
benzyl alcohol	DNEL	Short term Dermal	40 mg/kg bw/day	Workers	Systemic
benzyl alcohol	DNEL	Long term Inhalation	5.4 mg/m³	General population	Systemic

benzyl alcohol	DNEL	Short term Inhalation	27 mg/m³	General population	Systemic
benzyl alcohol	DNEL	Long term Dermal	4 mg/kg bw/day	General population	Systemic
benzyl alcohol	DNEL	Short term Dermal	20 mg/kg bw/day	General population	Systemic
benzyl alcohol	DNEL	Long term Oral	4 mg/kg bw/day	General population	Systemic
2,2'-iminodiethylamine	DNEL	Short term Dermal	4.88 mg/kg bw/day	General population	Systemic
2,2'-iminodiethylamine	DNEL	Long term Inhalation	15.4 mg/m³	Workers	Systemic
2,2'-iminodiethylamine	DNEL	Short term Inhalation	92.1 mg/m³	Workers	Systemic
2,2'-iminodiethylamine	DNEL	Long term Inhalation	0.87 mg/m³	Workers	Local
2,2'-iminodiethylamine	DNEL	Short term Inhalation	2.6 mg/m³	Workers	Local
2,2'-iminodiethylamine	DNEL	Long term Dermal	11.4 mg/kg bw/day	Workers	Systemic
2,2'-iminodiethylamine	DNEL	Long term Dermal	1.1 mg/cm²	Workers	Local
2,2'-iminodiethylamine	DNEL	Long term Inhalation	4.6 mg/m³	General population	Systemic
2,2'-iminodiethylamine	DNEL	Short term Inhalation	27.5 mg/m³	General population	Systemic
2,2'-iminodiethylamine	DNEL	Long term Dermal	4.88 mg/kg bw/day	General population	Systemic
bisphenol A	DNEL	Short term Dermal	0.031 mg/kg bw/day	Workers	Systemic
bisphenol A	DNEL	Short term Inhalation	2 mg/m³	Workers	Systemic
bisphenol A	DNEL	Long term Dermal	0.031 mg/kg bw/day	Workers	Systemic
bisphenol A	DNEL	Long term Inhalation	2 mg/m³	Workers	Systemic
bisphenol A	DNEL	Short term Dermal	0.002 mg/kg bw/day	General population	Systemic
bisphenol A	DNEL	Short term Inhalation	1.0 mg/m³	General population	Systemic
bisphenol A	DNEL	Short term Oral	0.004 mg/kg bw/day	General population	Systemic
bisphenol A	DNEL	Long term Dermal	0.002 mg/kg bw/day	General population	Systemic
bisphenol A	DNEL	Long term Inhalation	1.0 mg/m³	General population	Systemic
bisphenol A	DNEL	Long term Oral	0.004 mg/kg bw/day	General population	Systemic
bisphenol A	DNEL	Long term	1 mg/m³	General	Local

		Inhalation		population	
bisphenol A	DNEL	Short term Inhalation	1 mg/m³	General population	Local

DNEL/DMEL Summary : Not available

PNECs

Product/ingredient name	Type	Compartment Detail	Value	Method Detail
benzyl alcohol	PNEC	Fresh water	1 mg/l	
benzyl alcohol	PNEC	Marine	0.1 mg/l	
benzyl alcohol	PNEC	Sewage Treatment Plant	39 mg/l	
benzyl alcohol	PNEC	Sediment (freshwater)	5.27 mg/kg dwt	
benzyl alcohol	PNEC	Marine water sediment	0.527 mg/kg dwt	
benzyl alcohol	PNEC	Soil	0.456 mg/kg dwt	
bisphenol A	PNEC	Fresh water	0.018 mg/l	
bisphenol A	PNEC	Marine	0.018 mg/l	
bisphenol A	PNEC	Sewage Treatment Plant	320 mg/l	
bisphenol A	PNEC	Sediment	1.2 mg/kg dwt	
bisphenol A	PNEC	Soil	3.7 mg/kg dwt	
bisphenol A	PNEC	Marine water sediment	0.24 mg/kg dwt	

PNEC Summary : Not available

Derived No-Effect Levels' (DNEL's) and Predicted No-Effect Concentrations' (PNEC's)

Explanatory note:
REACH requires manufacturers and importers to establish and report 'Derived No-Effect Levels' (DNEL's) for humans by inhalation, ingestion and dermal routes of exposure and 'Predicted No-Effect Concentrations' (PNEC's) for environmental exposure. DNEL's and PNEC's are established by the registrant without an official consultation process, and are not intended to be directly used for setting workplace or general population exposure limits. They are primarily used as input values in running Quantitative Risk Assessment models (like the ECETOC-TRA model).

Due to differences in calculation methodology the DNEL will tend to be lower (sometimes significantly) than any corresponding health-based OEL for that chemical substance. Further although DNEL's (and PNEC's) are an indication for setting risk reduction measures, it should be recognized that these limits do not have the same regulatory application as officially endorsed governmental OEL's.

8.2 Exposure controls

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.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash

goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Material: 730 Camatril
Minimum break through time: 480 min

Material: 898 Butoject
Minimum break through time: 480 min
Producer: This recommendation is valid only for our Product as delivered. If this product will be mixed with other substances you need to contact a supplier of CE approved protective gloves (e.g. KCL GmbH, D-36124 Eichenzell, Tel. 0049 (0) 6659 87300, Fax. 0049 (0) 6659 87155, email: vertrieb@kcl.de).

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.

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 : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

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.

General protective measures : Chemical splash goggles or face shield. Chemical-resistant gloves. Suitable protective footwear. Light protective clothing. Eyewash bottle with clean water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Paste
Color : Blue.

Odor : amine.
Odor threshold : Not available (not measured)
pH : Not available (not measured)
Melting point/freezing point : Not available (not measured)

Initial boiling point and boiling range	:	Greater than 200 °C
Flash point	:	Greater than 100 °C
Evaporation rate	:	Not available (not measured)
Flammability (solid, gas)	:	Not available (not measured)
Burning time	:	Not available (not measured)
Burning rate	:	Not available (not measured)
Upper/lower flammability or explosive limits	:	**Lower:** Not applicable. **Upper:** Not applicable.
Vapor pressure	:	Not available (not measured)
Vapor density	:	Not applicable.
Relative density	:	Not available (not measured)
Density	:	Approx. 1.1 g/cm3
Solubility(ies)	:	Not available (not measured)
Solubility in water	:	Insoluble
Partition coefficient: n-octanol/water	:	Not applicable.
Auto-ignition temperature	:	Not available (not measured)
Decomposition temperature	:	Not available (not measured)
Viscosity	:	**Dynamic:** Not available (not measured) **Kinematic:** Not applicable.
Explosive properties	:	Not available (not measured)
Oxidizing properties	:	Not available (not measured)

Particle characteristics

Median particle size	:	Not applicable.

Refer to section 3 for further detail on nanoform particle characterization.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	:	Stable under normal conditions.
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	:	No specific data.
10.5 Incompatible materials	:	No specific data.
10.6 Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Fatty Acids, C18-Unsatd., Dimers, Polymers with Tall-Oil Fatty Acids and Triethylenetetramine				
	LD50 Oral	Rat	> 2,000 mg/kg	-
Poly(oxypropylene) diamine				
	LD50 Oral	Rat	1,100 mg/kg	-
	LD50 Oral	Rat	1,100 mg/kg	-
	LD50 Dermal	Rabbit	1,550 mg/kg	-
	LD50 Dermal	Rabbit	1,550 mg/kg	-
3-aminomethyl-3,5,5-trimethylcyclohexylamine				
	LD50 Oral	Rat	1,030 mg/kg	-
	LD50 Oral	Rat	1,030 mg/kg	-
silicon dioxide				
	LD50 Oral	Rat	3,160 mg/kg	-
	LD50 Oral	Rat	5,000 mg/kg OECD-Guideline 401 (Acute Oral Toxicity)	-
	LD50 Oral	Rat	3,160 mg/kg	-
benzyl alcohol				
	LD50 Oral	Rat	1,620 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	> 4.178 mg/l	4 h
	LD50 Dermal	Rabbit	2,000 mg/kg	-
Triethylenetetramine				
	LD50 Oral	Rat	1,716 mg/kg	-
	LD50 Oral	Rat	1,716 mg/kg	-
	LD50 Dermal	Rat	1,465 mg/kg	-
	LD50 Dermal	Rat	1,465 mg/kg	-
2,2'-iminodiethylamine				
	LD50 Oral	Rat	1,080 mg/kg	-
	LD50 Oral	Rat	1,080 mg/kg	-
	LD50 Dermal	Rabbit	1,054 mg/kg	-
	LD50 Dermal	Rabbit	1,090 mg/kg	-
	LD50 Dermal	Rabbit	1,054 mg/kg	-
bisphenol A				
Remarks - Oral:	The LD50 was > 2000 mg/kg with lethargy the main clinical sign during day one.			
	LD50 Oral	Rat - female	4,100 mg/kg	-
	LD50 Oral	Rat - Male	5,200 mg/kg	-
	LD50 Oral	Rat	4,100 mg/kg	-
Remarks - Inhalation:	In rats no mortalities at 170 mg/m3, the highest attainable concentration. Limited evidence of nasal irritation.			
Remarks - Dermal:	The estimated dermal LD50 in the rabbit was approximately 3000 mg/kg.			
	LD50 Dermal	Rabbit	3,000 mg/kg	-
salicylic acid				
	LD50 Oral	Rat	891 mg/kg	-
	LD50 Oral	Rat	891 mg/kg	-
	LD50 Dermal	Rabbit	> 10,000 mg/kg	-
	LD50 Dermal	Rabbit	> 10,000 mg/kg	-
4-nonylphenol, branched				
	LD50 Oral	Rat	1,300 mg/kg	-
	LD50 Oral	Rat	1,300 mg/kg	-

Conclusion/Summary : Not available

Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
EPIKURE™ Curing Agent MGS BPH 1355G	3474.9 mg/kg	7186.2 mg/kg	N/A	16.7 mg/l	35 mg/l
Poly(oxypropylene) diamine	1100 mg/kg	1550 mg/kg	N/A	N/A	N/A
3-aminomethyl-3,5,5-trimethylcyclohexylamine	1030 mg/kg	N/A	N/A	N/A	N/A
benzyl alcohol	1620 mg/kg	N/A	N/A	N/A	4.178 mg/l
Triethylenetetramine	1716 mg/kg	1465 mg/kg	N/A	N/A	N/A
2,2'-iminodiethylamine	1080 mg/kg	1054 mg/kg	N/A	0.5 mg/l	N/A
bisphenol A	3250 mg/kg	3000 mg/kg	N/A	N/A	N/A
salicylic acid	891 mg/kg	N/A	N/A	N/A	N/A
4-nonylphenol, branched	1300 mg/kg	N/A	N/A	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Fatty Acids, C18-Unsatd., Dimers, Polymers with Tall-Oil Fatty Acids and Triethylenetetramine			-		-
Remarks:	Causes skin irritation. Causes severe eye irritation.				
Poly(oxypropylene) diamine	eyes - Severe irritant	Rabbit	-		-
silicon dioxide	eyes - Mild irritant	Rabbit	-	24 hrs	-
benzyl alcohol	Skin - Not irritant	Rabbit	-	24 hrs	-
	eyes - Mild irritant	Rabbit	-	24 hrs	-
Triethylenetetramine	eyes - Moderate irritant	Rabbit	-	24 hrs	-
	Skin - Severe irritant	Rabbit	-	24 hrs	-
	eyes - Severe irritant	Rabbit	-		-
2,2'-iminodiethylamine	Skin - Moderate irritant	Rabbit	-		-
bisphenol A	Skin - Erythema/Eschar 404 Acute Dermal Irritation/Corrosion	Rabbit	0	4 hrs	1 - 72 hrs
	Skin - Edema 404 Acute Dermal Irritation/Corrosion	Rabbit	0	4 hrs	1 - 72 hrs
	eyes - Cornea opacity 405 Acute Eye Irritation/Corrosion	Rabbit	1		-
	eyes - Iris lesion 405 Acute Eye Irritation/Corrosion	Rabbit	1		-
	eyes - Redness of	Rabbit	1		-

	the conjunctivae 405 Acute Eye Irritation/Corrosion				
	eyes - Edema of the conjunctivae 405 Acute Eye Irritation/Corrosion	Rabbit	1 - 2		-
4-nonylphenol, branched	Skin - Severe irritant	Rabbit	-	24 hrs	-
	eyes - Severe irritant	Rabbit	-		-

Conclusion/Summary

Skin : Not available
eyes : Not available
Respiratory : Not available

Sensitization

Product/ingredient name	Route of exposure	Species	Result
bisphenol A	Skin	Mouse	Not sensitizing Maximisation Test
Remarks:	Not a skin sensitizer in the Mouse local lymph node assay and the guinea pig Maximization test.		

Conclusion/Summary

Skin : Not available
Respiratory : Not available

Mutagenicity

Product/ingredient name	Test	Experiment	Result
bisphenol A	-	Subject: See Remarks	Negative
Remarks:	Does not cause gene mutation or chromosome damage in bacteria, fungi or mammalian cells in vitro.		
	-	Subject: Mammalian-Animal	Negative
Remarks:	Does not induce evidence of gene mutation or chromosome damage in rodents. Bisphenol A is capable of producing DNA adduct spots in rat liver following oral administration and 32p post-labeling. The significance of these DNA adduct spots is unknown.		

Conclusion/Summary : Not available

Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure
bisphenol A	Negative - Oral - NOEL	See Remarks		
Remarks:	There are no human epidemiological data contributing to the assessment of whether or not BPA is carcinogenic. But a dietary carcinogenicity study conducted by the U. S. National Toxicology Program in rats and mice concluded that BPA was not carcinogenic in either species because the tumor findings were not considered toxicologically significant. No inhalation or dermal carcinogenicity studies are available for BPA.			

Conclusion/Summary : Not available

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Developmen t toxin	Species	Dose	Exposure
bisphenol A	Positive	Positive	-	See Remarks	Oral	-
Remarks:	The effects of BPA on fertility and reproductive performance have been investigated in two-generation and multi-generation oral studies in the rat and an oral continuous breeding study and a two-generation study in mice. Effects were seen in both species at approximately the same dose level and it is considered that the NOAEL is 50 mg/kg/day. Generally, adverse reproductive findings were made a parentarily toxic dose levels in these dose-feed studies. The most consistent finding among these studies was a significant reduction of mean pup body weight at the high dose levels.					

Conclusion/Summary : Not available

Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
bisphenol A	Negative - Oral	See Remarks	-	-
Remarks:	BPA did not demonstrate any evidence of teratogenicity in rats and mice even at maternally toxic dose levels in the feed. Adverse developmental effects manifested primarily as significantly reduced mean pup body weight were limited to maternally toxic dose levels.			

Conclusion/Summary : Not available

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Formaldehyde, oligomeric reaction products with 4,4'-isopropylidenediphenol and diethylenetriamine	Category 3	-	Respiratory tract irritation
2,2'-iminodiethylamine	Category 3	-	Respiratory tract irritation
bisphenol A	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)
Not available

Aspiration hazard
Not available

Information on likely routes of exposure : Not available

Potential acute health effects

Eye contact : Causes serious eye damage.
Inhalation : Harmful if inhaled.
Skin contact : Causes severe burns. May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following: pain, watering, redness
Inhalation : Adverse symptoms may include the following: reduced fetal weight, increase in fetal deaths, skeletal malformations
Skin contact : Adverse symptoms may include the following: pain or irritation, redness, blistering may occur, reduced fetal weight, increase in fetal deaths, skeletal malformations
Ingestion : Adverse symptoms may include the following: stomach pains,

reduced fetal weight, increase in fetal deaths, skeletal malformations

Delayed and immediate effects 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 effects

Fatty Acids, C18-Unsatd., Dimers, Polymers with Tall-Oil Fatty Acids and Triethylenetetramine				-

Conclusion/Summary : Not available

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : May damage fertility or the unborn child.

11.2. Information on other hazards

11.2.1 Endocrine disrupting properties : The product contains a substance that has been identified as having endocrine disrupting properties according to (EU)2017/2100 or (EU)2018/605 or is included in the Candidate List of Substances of Very High Concern according to Article 59(1) in (EU)1907/2006 due to this property (see section 3).

11.2.2 Other information : Not available

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Fatty Acids, C18-Unsatd., Dimers, Polymers with Tall-Oil Fatty Acids and Triethylenetetramine			
Remarks - Acute - Aquatic invertebrates.:	not available		
Remarks - Acute - Aquatic plants:	not available		
Remarks - Acute - Micro-organism:	not available		
3-aminomethyl-3,5,5-trimethylcyclohexylamine			
	Acute EC50 17.4 mg/l Fresh water	Daphnia - Daphnia magna	48 h
	Acute EC50 17.4 mg/l Fresh water	Daphnia - Daphnia magna	48 h
	Acute EC50 55.5 mg/l Fresh water	Green algae	72 h
benzyl alcohol			
	Acute LC50 460,000 µg/l Fresh	Fish - Pimephales promelas	96 h

	water		
	Acute LC50 10 mg/l Fresh water	Fish - Lepomis macrochirus	96 h
Triethylenetetramine			
	Acute LC50 33,900 µg/l Fresh water	Water flea	48 h
	Acute EC50 3,700 µg/l Fresh water	Green algae	96 h
2,2'-iminodiethylamine			
	Acute LC50 16 mg/l	Daphnia	48 h
	Acute LC50 53,500 µg/l Fresh water	Daphnia - Daphnia magna	48 h
	Acute LC50 16 mg/l	Daphnia	48 h
	Acute EC50 1,164 mg/l	Green algae	72 h
	Acute EC50 345,600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 h
	Acute EC50 345.6 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 h
bisphenol A			
	Acute LC50 4.6 mg/l Fresh water	Fathead minnow	96 h
	Acute No-observable-effect-concentration 0.016 mg/l Fresh water Chronic ecotoxicity	Fathead minnow	444 d
	Acute LC50 2.7 mg/l Fresh water	Water flea	48 h
	Acute EC50 2.73 mg/l Fresh water	Microalgae	96 h
	Chronic No-observable-effect-concentration 320 mg/l Fresh water	Pseudomonas putida	-
	Chronic No observable effect concentration 0.016 mg/l Fresh water	Fathead minnow	444 d
	Chronic No-observable-effect-concentration 1.8 mg/l Fresh water	Water flea	-
salicylic acid			
	Acute EC50 870 mg/l Fresh water	Daphnia - Daphnia magna	48 h
	Acute EC50 870 mg/l Fresh water	Daphnia - Daphnia magna	48 h
	Chronic No-observable-effect-concentration 5.6 mg/l Fresh water	Daphnia - Daphnia magna	21 d
	Chronic No-observable-effect-concentration 5.6 mg/l Fresh water	Daphnia - Daphnia magna	21 d
	Acute LC50 138.25 µg/l Fresh water	Fathead minnow	96 h
	Acute LC50 135.1 µg/l Fresh water	Bluegill	96 h
	Acute EC50 0.33 mg/l Fresh water	Green algae	72 h
	Acute EC50 0.41 mg/l Fresh water	Green algae	96 h

Conclusion/Summary **:** Not available

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
bisphenol A	OECD-Guideline 301 F (Manometric Respirometry Test)	74.7 - 81.4 % - Readily biodegradable - 28 d	-	Activated sludge
Remarks:	Bisphenol A was found to be readily biodegradable in an OECD Guideline 301F Manometric Respirometry test. In the test conducted at 22 °C, the extent of biodegradation reached 77.1 to 92.3% at the end of the 10-day window based on O2 consumption and 76 to 81% of theoretical CO2 formation by day 28. Generally, across a number of tests using international test guidelines for measuring aerobic biodegradation under stringent test conditions, Bisphenol A is shown to be readily biodegradable.			

Conclusion/Summary : Not available

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Poly(oxypropylene) diamine	1.34	-	low
3-aminomethyl-3,5,5-trimethylcyclohexylamine	0.99	-	low
benzyl alcohol	1.1	-	low
Triethylenetetramine	-1.66 - -1.4	-	low
2,2'-iminodiethylamine	-5.58	0.65 2.80 - 6.30	low
bisphenol A	3.4	73	low
salicylic acid	2.21 - 2.26	-	low
4-nonylphenol, branched	5.4	2.4	low

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available

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 : The product contains a substance that has been identified as having endocrine disrupting properties according to (EU)2017/2100 or (EU)2018/605 or is included in the Candidate List of Substances of Very High Concern according to Article 59(1) in (EU)1907/2006 due to this property (see section 3).

12.7 Other adverse effects : No known significant effects or critical hazards.
No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimized wherever

possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

Regulatory information	14.1. UN number	14.2. UN proper shipping name	14.3. Transport hazard class(es)	14.4. Packing group
ADR/ADN	3259	POLYAMINES, SOLID, CORROSIVE, N.O.S. (ALKYLETHERAMINE)	8	II
RID	3259	POLYAMINES, SOLID, CORROSIVE, N.O.S. (ALKYLETHERAMINE)	8	II
ICAO/IATA	3259	POLYAMINES, SOLID, CORROSIVE, N.O.S. (ALKYLETHERAMINE)	8	II
IMO/IMDG	3259	POLYAMINES, SOLID, CORROSIVE, N.O.S. (ALKYLETHERAMINE)	8	II

14.5. Environmental hazards

Environmentally hazardous and/or Marine Pollutant : Yes.

14.6 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.

14.7 Maritime transport in bulk according to IMO instruments : Not available

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 authorization

Annex XIV

None required.

Substances of very high concern

The following components are listed:

Ingredient name	Intrinsic property	Status	Reference number	Date of revision
bisphenol A	Toxic to reproduction	Recommended	ED/01/2018	2019-10-01
	Endocrine disrupting properties for human health	Recommended	ED/01/2018	2019-10-01
	Endocrine disrupting properties for environment	Recommended	ED/01/2018	2019-10-01
4-nonylphenol, branched	Endocrine disrupting properties for environment	Candidate	ED/169/2012	2012-12-19

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

Other EU regulations

REACH Status : The substance(s) in this product has (have) been Registered, or are exempted from registration, according to Regulation (EC) No. 1907/2006 (REACH).

Prior Informed Consent (PIC) (649/2012/EU)

Product/ingredient name	Annex	Status
4-nonylphenol, branched	Annex I - Part 1	Listed
4-nonylphenol, branched	Annex I - Part 2	Listed

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category
E2

National regulations

Product name	List name	Name on list	Classification	Notes
silicon dioxide	DFG MAC-values list	Silica, crystalline (respirable fraction)	Carc.Cat.1	-
benzyl alcohol	DFG MAC-values list	Hydroxytoluene Benzyl alcohol	Listed	-

Storage class (TRGS 510) : 8B
6.1D

Hazardous incident ordinance
This product is controlled under the Germany Hazardous Incident Ordinance.

Danger criteria

Category	Reference number
E2	1.3.2

Hazard class for water : WGK 3
Technical instruction on air quality control : TA-Luft Number 5.2.5: 69.9 %
TA-Luft Number 5.2.1: 21.6 %
TA-Luft Number 5.2.5: Class I - 8.4 %
AOX : Not available

International regulations

International lists : Australia inventory (AICS) All components are listed or exempted.
Canada inventory At least one component is not listed in DSL but all such components are listed in NDSL.
Japan inventory Not determined.
China inventory (IECSC) Not determined.
Korea inventory (KECI) Not determined.
New Zealand Inventory (NZIoC) All components are listed or exempted.
Philippines inventory (PICCS) Not determined.
United States inventory (TSCA 8b) All components are active or exempted.
Taiwan inventory (TCSI) Not determined.
Thailand inventory Not determined.
Vietnam inventory Not determined.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number

SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

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

Classification	Justification
Acute Tox. 4, H332	Calculation method
Skin Corr. 1B, H314	Calculation method
Eye Dam. 1, H318	Calculation method
Skin Sens. 1, H317	Calculation method
Repr. 1B, H360	Calculation method
Aquatic Chronic 2, H411	Calculation method

Full text of abbreviated H statements

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H360	May damage fertility or the unborn child.
H360F	May damage fertility.
H361	Suspected of damaging fertility or the unborn child.
H361d	Suspected of damaging the unborn child.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 2	ACUTE TOXICITY - Category 2
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Aquatic Chronic 2	AQUATIC HAZARD (LONG-TERM) - Category 2
Aquatic Chronic 3	AQUATIC HAZARD (LONG-TERM) - Category 3
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Repr. 1B	REPRODUCTIVE TOXICITY - Category 1B
Repr. 2	REPRODUCTIVE TOXICITY - Category 2
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITISATION - Category 1
Skin Sens. 1A	SKIN SENSITISATION - Category 1A
Skin Sens. 1B	SKIN SENSITISATION - Category 1B
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3
Acute Tox. 4	ACUTE TOXICITY - oral
Acute Tox. 4	ACUTE TOXICITY - dermal
Skin Corr. 1B	SKIN CORROSION/IRRITATION

Skin Irrit. 2	SKIN CORROSION/IRRITATION
Skin Sens. 1	SKIN SENSITISATION
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION
Acute Tox. 2	ACUTE TOXICITY - inhalation
Acute Tox. 4	ACUTE TOXICITY - inhalation
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Respiratory tract irritation
Repr. 1B	REPRODUCTIVE TOXICITY
Repr. 2	REPRODUCTIVE TOXICITY
Repr. 2	REPRODUCTIVE TOXICITY
Repr. 2	REPRODUCTIVE TOXICITY
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM)
Aquatic Chronic 2	AQUATIC HAZARD (LONG-TERM)
Aquatic Chronic 3	AQUATIC HAZARD (LONG-TERM)

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