

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II

# SAFETY DATA SHEET

FOR INDUSTRIAL USE ONLY

EPIKURE™ Curing Agent MGS LH 137

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

### 1.1 Product identifier

**Product name** : EPIKURE™ Curing Agent MGS LH 137  
**SDS Number** : 16S-00018  
**Product type** : Curing Agent

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

**Product use** : Epoxy Resin Systems

### 1.3 Details of the supplier of the safety data sheet

**Manufacturer, importer, supplier** : Hexion B.V.  
Seattleweg 17  
3195 ND Pernis - Rotterdam  
The Netherlands  
**Contact person** : 4information@momentive.com  
**Telephone** : General Information:  
+31 6 52 511079

### 1.4 Emergency telephone number

#### Supplier

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

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture


#### Classification according to Directive 1999/45/EC [DPD]

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

**Classification** : C, R34  
R43  
R52/53  
**Physical/chemical hazards** : Not applicable.  
**Human health hazards** : Causes burns. May cause sensitization by skin contact.

**Environmental hazards** : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
 See Section 16 for the full text of the R phrases or H statements declared above.

**2.2 Label elements**

**Hazard symbol or symbols** : 

**Indication of danger** : Corrosive

**Risk phrases** : R34Causes burns.  
 R43May cause sensitization by skin contact.  
 R52/53Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety phrases** : S23Do not breathe gas/fumes/vapor/spray.  
 S26In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
 S36/37/39Wear suitable protective clothing, gloves and eye/face protection.  
 S45In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
 S60This material and its container must be disposed of as hazardous waste.

**Hazardous ingredients** : Poly(oxypropylene) diamine MW 230  
 3-aminomethyl-3,5,5-trimethylcyclohexylamine  
 Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 5-amino-1,3,3-trimethylcyclohexanemethanamine and (chloromethyl)oxirane

**Supplemental label elements** : Not applicable.

**2.3 Other hazards**

**Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII** : Not applicable.

**Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII** : Not applicable.

**SECTION 3: Composition/information on ingredients**

**Substance/mixture** : Mixture

Product/ingredient name	Identifiers	%	Classification		Type
			67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]	

Poly(oxypropylene) diamine MW 230	EC: CAS : 9046-10-0 Index:	75 - <90	C; R34 R41 R65 R52/53		[1]
3-aminomethyl-3,5,5-trimethylcyclohexylamine	EC:220-666-8 CAS : 2855-13-2 Index:612-067-00-9	10 - <20	C; R34 Xn; R21/22 R43 R52/53	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr./Irrit. 1B, H314 Eye Dam./Irrit. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412	[1]
benzyl alcohol	EC:202-859-9 CAS : 100-51-6 Index:603-057-00-5	3 - <7	Xn; R20/22	Acute Tox. 4, H302 Acute Tox. 3, H331	[1]
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 5-amino-1,3,3-trimethylcyclohexanemethan amine and (chloromethyl)oxirane	EC:500-101-4 CAS : 38294-64-3 Index:	1 - <2.5	Xn; R21/22 N; R51/53 R43 C; R34		[1]
4-nonylphenol, branched	EC:284-325-5 CAS : 84852-15-3 Index:601-053-00-8	0.25 - <0.5	Repr.Cat.3; R62 R63 C; R34 Xn; R22 N; R50 R53	Acute Tox. 4, H302 Skin Corr./Irrit. 1B, H314 Eye Dam./Irrit. 1, H318 Repr. 2, H361f Repr. 2, H361d Aquatic Acute 1, H400 Aquatic Chronic 1, H410	[1]

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

See Section 16 for the full text of the R phrases or 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 and hence require reporting in this section.

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

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- Eye contact** : Get medical attention immediately. 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. 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. Flush contaminated skin with plenty of 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. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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** : Corrosive to eyes. Causes burns.
- Inhalation** : May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Skin contact** : Corrosive to the skin. Causes burns. May cause sensitization by skin contact.
- Ingestion** : May cause burns to mouth, throat and stomach.

##### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur
- Ingestion** : Adverse symptoms may include the following:  
stomach pains

#### 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 an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

#### 5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen 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. This material is harmful to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- 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** :

### 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. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also Section 8 for additional information on hygiene measures.

#### 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.

### 6.3 Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled 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

- 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. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. 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. 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

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

No exposure limit value known.

**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: Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**DNEL/DMEL Summary** : Not available

**PNEC Summary** : Not available

### 8.2 Exposure controls

**Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapor or mist, 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 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.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be

- Other skin protection** : approved by a specialist before handling this product.  
: 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** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- 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.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

- Physical state** : Liquid  
**Color** : Blue.
- Odor** : amine.  
**Odor threshold** : Not available  
**pH** : Not available  
**Melting point/freezing point** : Not available  
**Initial boiling point and boiling range** : 200 °C  
**Flash point** : 100 °C (ISO 2719)
- Evaporation rate** : Not available  
**Upper/lower flammability or explosive limits** : **Lower:** Not available  
**Upper:** Not available  
**Vapor pressure** : Not available  
**Vapor density** : Not available  
**Relative density** : Not available  
**Solubility(ies)** : Not available  
**Solubility in water** : Partial
- Partition coefficient: n-octanol/water** : Not available  
**Auto-ignition temperature** : 300 °C (DIN 51794)
- Decomposition temperature** : Not available  
**Viscosity** : **Dynamic-:** 10 - 50 mPa·s @ 25 °C (ISO 9371)  
**Kinematic-:** Not available
- Explosive properties** : Not available  
**Oxidizing properties** : Not available

### 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 toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Poly(oxypropylene) diamine MW 230				
	LD50 Oral	Rat	2,880 mg/kg	-
	LD50 Dermal	Rabbit	2,980 mg/kg	-
3-aminomethyl-3,5,5-trimethylcyclohexylamine				
	LD50 Oral	Rat	1,030 mg/kg	-
benzyl alcohol				
	LD50 Oral	Rat	1,230 mg/kg	-
	LC50 Inhalation	Rat	> 4.178 mg/l	4 h
	LD50 Dermal	Rabbit	2,000 mg/kg	-
4-nonylphenol, branched				
	LD50 Oral	Rat	1,300 mg/kg	-

**Conclusion/Summary** : Not available

#### Acute toxicity estimates

Not available

#### Irritation/Corrosion

##### **Conclusion/Summary**

- Skin** : Not available
- eyes** : Not available
- Respiratory** : Not available

#### Sensitization

##### **Conclusion/Summary**

- Skin** : Not available
- Respiratory** : Not available

#### Mutagenicity

**Conclusion/Summary** : Not available

**Carcinogenicity**

**Conclusion/Summary** : Not available

**Reproductive toxicity**

**Conclusion/Summary** : Not available

**Teratogenicity**

**Conclusion/Summary** : Not available

**Specific target organ toxicity (single exposure)**

Not available

**Specific target organ toxicity (repeated exposure)**

Not available

**Aspiration hazard**

Not available

**Information on the likely routes of exposure** : Not available

**Potential acute health effects**

**Eye contact** : Corrosive to eyes. Causes burns.  
**Inhalation** : May cause burns to mouth, throat and stomach.  
**Skin contact** : Corrosive to the skin. Causes burns. May cause sensitization by skin contact.  
**Ingestion** : May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness  
**Inhalation** : No specific data.  
**Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur  
**Ingestion** : Adverse symptoms may include the following:  
stomach pains

**Delayed and immediate effects and also 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**

- 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.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

**SECTION 12: Ecological information**

**12.1 Toxicity**

Product/ingredient name	Result	Species	Exposure
benzyl alcohol			
	Acute LC50 460,000 µg/l Fresh water	Fish - Fathead minnow	96 h
4-nonylphenol, branched			
	Acute LC50 138.25 µg/l Fresh water	Fish - Fathead minnow	96 h
	Acute LC50 135.1 µg/l Fresh water	Fish - Bluegill	96 h

**Conclusion/Summary** : Not available

**12.2 Persistence and degradability**

**Conclusion/Summary** : Not available

**12.3 Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
benzyl alcohol	1.1	-	Low
4-nonylphenol, branched		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**

**PBT** : P: Not available  
 B: Not available  
 T: Not available

**vPvB** : vP: Not available  
 vB: Not available

**12.6 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 minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. 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	2735	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (ALKYLETHERAMINE)	8	II
RID	2735	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (ALKYLETHERAMINE)	8	II
ICAO/IATA	2735	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (ALKYLETHERAMINE)	8	II
IMO/IMDG	2735	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (ALKYLETHERAMINE)	8	II

**14.5. Environmental hazards**

Environmentally hazardous and/or Marine Pollutant : No.

- 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 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

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**

**Substances of very high concern**

**Carcinogen:** Not listed

**Mutagen:** Not listed

**Toxic to reproduction:** Not listed

**PBT:** Not listed

**vPvB:** Not listed

**Other EU regulations**

- REACH Status** : The substance(s) in this product has (have) been Pre-Registered and/or Registered, or are exempted from registration, according to Regulation (EC) No. 1907/2006 (REACH).
- Integrated pollution prevention and control list (IPPC) - Air** : Not listed
- Integrated pollution prevention and control list (IPPC) - Water** : Not listed
- Aerosol dispensers** : Not applicable.
- Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.
- EU - Prior Informed Consent. List of chemicals subject to the international PIC procedure (Annex I - Part 1)** : Not listed
- EU - Prior Informed Consent. List of chemicals subject to the international PIC procedure (Annex I - Part 2)** : Not listed
- EU - Prior Informed Consent. List of chemicals subject to the international PIC procedure (Annex I - Part 3)** : Not listed
- AOX** : The product does not contain organically bound halogens which could lead to an AOX value in waste water.

Product/ingredient name	Carcinogenic effects	Mutagenic effects	Developmental effects	Fertility effects
4-nonylphenol,			Repr.Cat.3; R62	Repr.Cat.3; R62 R63

branched			R63 Repr. 2,	Repr. 2,
----------	--	--	-----------------	----------

### Seveso II Directive

This product is not controlled under the Seveso II Directive.

#### Danger criteria

<b>Category</b>
E2: Hazardous to the aquatic environment - Chronic 2

### National regulations

- Hazardous incident ordinance** : Not applicable.
- Hazard class for water** : WGK 2, Appendix No. 4
- Technical instruction on air quality control** : Number 5.2.5: 99.2 %  
Number 5.2.5: TA-LuftClass I - 0.3 %

### International regulations

- International lists** : Australia inventory (AICS) Not determined.  
Canada inventory All components are listed or exempted.  
Japan inventory Not determined.  
China inventory (IECSC) All components are listed or exempted.  
Korea inventory All components are listed or exempted.  
New Zealand Inventory (NZIoC) All components are listed or exempted.  
Philippines inventory (PICCS) Not determined.  
United States inventory (TSCA 8b) Not determined.  
Taiwan inventory (CSNN) Not determined.

**Chemical Weapons Convention List Schedule I Chemicals** : Not listed

**Chemical Weapons Convention List Schedule II Chemicals** : Not listed

**Chemical Weapons Convention List Schedule III Chemicals** : Not listed

- 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]  
DNEL = Derived No Effect Level  
DMEL = Derived Minimal Effect Level  
EUH statement = CLP-specific Hazard statement  
PNEC = Predicted No Effect Concentration  
RRN = REACH Registration Number  
PBT = Persistent, Bioaccumulative and Toxic  
vPvB = Very Persistent and Very Bioaccumulative

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

Classification	Justification
Skin Corr./Irrit. 1B, H314	Calculation method
Skin Sens. 1, H317	Calculation method
Aquatic Chronic 2, H411	Calculation method

**Full text of abbreviated H statements** :

H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H332 Harmful if inhaled.  
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.  
H304 May be fatal if swallowed and enters airways.  
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.  
H314 Causes severe skin burns and eye damage.  
H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.

**Full text of classifications [CLP/GHS]** :

**Acute Tox. 4, H302:** ACUTE TOXICITY: ORAL - Category 4  
**Acute Tox. 4, H312:** ACUTE TOXICITY: SKIN - Category 4  
**Acute Tox. 4, H332:** ACUTE TOXICITY: INHALATION - Category 4  
**Aquatic Acute 1, H400:** AQUATIC TOXICITY (ACUTE) - Category 1  
**Aquatic Chronic 1, H410:** AQUATIC TOXICITY (CHRONIC) - Category 1  
**Aquatic Chronic 2, H411:** AQUATIC TOXICITY (CHRONIC) - Category 2  
**Aquatic Chronic 3, H412:** AQUATIC TOXICITY (CHRONIC) - Category 3  
**Asp. Tox. 1, H304:** ASPIRATION HAZARD - Category 1  
**Repr. H361fd:** TOXIC TO REPRODUCTION [Fertility Unborn child]  
**Skin Corr./Irrit. 1B, H314:** SKIN CORROSION/IRRITATION - Category 1B  
**Skin Corr./Irrit. 1C, H314:** SKIN CORROSION/IRRITATION - Category 1C  
**Skin Sens. 1, H317:** SKIN SENSITIZATION - Category 1

**Full text of abbreviated R phrases** :

R62- Possible risk of impaired fertility.  
R63- Possible risk of harm to the unborn child.  
R22- Harmful if swallowed.  
R20/22- Harmful by inhalation and if swallowed.  
R21/22- Harmful in contact with skin and if swallowed.  
R65- Harmful: may cause lung damage if swallowed.  
R34- Causes burns.  
R41- Risk of serious damage to eyes.  
R43- May cause sensitization by skin contact.  
R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Full text of classifications [DSD/DPD]** :

Repr.Cat.3 - Toxic to reproduction category 3  
C - Corrosive  
Xn - Harmful  
Xi - Irritant  
N - Dangerous for the environment.

**Date of printing** : 23.03.2015  
**Date of issue/ Date of revision** : 01.07.2013  
**Date of previous issue** : 10.11.2011  
**Version** : 3.0

**Notice to reader**

**The information provided herein was believed by Momentive Specialty Chemicals ("Momentive") to be accurate at the time of preparation or prepared from sources believed to be reliable, but it is the responsibility of the user to investigate and understand other pertinent sources of information, to comply with all laws and procedures applicable to the safe handling and use of the product and to determine the suitability of the product for its intended use. All products supplied by Momentive are subject to Momentive's terms and conditions of sale. MOMENTIVE MAKES NO WARRANTY, EXPRESSED OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE OR CONCERNING THE ACCURACY OF ANY INFORMATION PROVIDED BY MOMENTIVE, except that the product shall conform to Momentive's specifications. Nothing contained herein constitutes an offer for the sale of any product.**

© and (TM) Licensed trademarks of Momentive Specialty Chemicals Inc.



**This page left intentionally blank.**