



SAFETY DATA SHEET

Biosan ® Ultra Activator

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

1.1 Product identifier

Product name : Biosan ® Ultra Activator
Product description : Paint. Hardener.
Product type : Liquid.

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

Identified uses	
Industrial uses: Uses of substances as such or in preparations* at industrial sites Professional uses: Public domain (administration, education, entertainment, services, craftsmen)	
Uses advised against	Reason
Consumer use	Product is not intended for consumer use.

1.3 Details of the supplier of the safety data sheet

Martin Mathys NV, Kolenbergstraat 23, B-3545 Zelem, Belgium
Telephone no.: +32 (0) 13 460 200
Fax no.: +32 (0) 13 460 201

e-mail address of person responsible for this SDS : rpmeurohas@ro-m.com

1.4 Emergency telephone number

Telephone number : +44 (0) 207 858 1228
Hours of operation : 24 / 7

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]

Skin Irrit. 2, H315
Eye Irrit. 2, H319
Skin Sens. 1, H317
Aquatic Chronic 2, H411

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

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

Classification : Xi; R36/38
R43
N; R51/53

Human health hazards : Irritating to eyes and skin. May cause sensitisation by skin contact.

Environmental hazards : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SECTION 2: Hazards identification

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

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

2.2 Label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : Causes serious eye irritation.
Causes skin irritation.
May cause an allergic skin reaction.
Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention : Wear protective gloves and eye protection: butyl rubber gloves or ethylene vinyl alcohol (EVAL) gloves and Safety glasses with side shields. Avoid breathing spray. Avoid release to the environment.

Response : IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical attention.

Storage : Not applicable.

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

Supplemental label elements : Contains epoxy constituents. May produce an allergic reaction.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

Other hazards which do not result in classification : Not available.

The mixture may be a skin sensitiser. It may also be a skin irritant and repeated contact may increase this effect. The mixture may be a skin sensitiser. It may also be a severe skin irritant.

SECTION 3: Composition/information on ingredients

Substance/mixture : Mixture

SECTION 3: Composition/information on ingredients

Product/ingredient name	Identifiers	%	Classification		Type
			67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]	
bisphenol-A-epoxy resin, avg.mol.wght. ≤ 700	REACH #: 01-2119456619-26 EC: 500-033-5 CAS: 25068-38-6 Index: 603-074-00-8	50 - <75	Xi; R36/38 R43 N; R51/53	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411	[1]
bisphenol-F-epoxy resin avg.mol.wght.	REACH #: 01-2119454392-40 EC: 500-006-8 CAS: 9003-36-5	5 - <25	Xi; R36/38 R43 N; R51/53	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411	[1]
oxirane, mono[(C12-14-alkyloxy) methyl]derivs	REACH #: 01-2119485289-22 EC: 271-846-8 CAS: 68609-97-2 Index: 603-103-00-4	10 - <20	Xi; R38 R43	Skin Irrit. 2, H315 Skin Sens. 1, H317	[1]
			See Section 16 for the full text of the R-phrases declared above.	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 or vPvBs 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 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
- [5] Substance of equivalent concern

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

SECTION 4: First aid measures

4.1 Description of first aid measures

- General** : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.
- 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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Give nothing by mouth. If unconscious, place in recovery position and seek medical advice. Get medical attention if adverse health effects persist or are severe. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- 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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Call physician immediately. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

SECTION 4: First aid measures

- Ingestion** : 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. Get medical attention if adverse health effects persist or are severe. 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-aiders** : No action shall be taken involving any personal risk or without suitable training. 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

There are no data available on the mixture itself. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Based on the properties of the epoxy constituent(s) and considering toxicological data on similar mixtures, this mixture may be a skin sensitizer and an irritant. It contains low molecular weight epoxy constituents which are irritating to eyes, mucous membrane and skin. Repeated skin contact may lead to irritation and to sensitisation, possibly with cross-sensitisation to other epoxies. Skin contact with the mixture and exposure to spray mist and vapour should be avoided.

Based on the properties of epoxy constituent(s) and considering toxicological data on similar mixtures, this mixture may be a skin sensitizer and a severe irritant. It contains epoxy based reactive diluents which are moderate to severely irritating to eyes, mucous membrane and skin and are strong sensitizers. Repeated skin contact may lead to irritation and to hyper-sensitivity, possibly with cross-sensitisation to other epoxies. Single oral exposure to doses of the epoxy based reactive diluents at or close to the lethal dose has been shown to cause transient neurotoxic effects in animals in some cases. However, uptake through skin and by inhalation has not caused such effects in animals. Prolonged exposure to high concentration may cause adverse effects in target organs such as liver and kidney.

Contains bisphenol-A-epoxy resin, avg.mol.wght. ≤ 700, Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol, oxirane, mono[(C12-14-alkyloxy)methyl] derivs.. May produce an allergic reaction.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

See toxicological information (Section 11)

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Recommended: alcohol-resistant foam, CO₂, powders, water spray.

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

Hazardous thermal decomposition products : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

5.3 Advice for firefighters

Special protective actions for fire-fighters : Cool closed containers exposed to fire with water. 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. Do not release runoff from fire to drains or watercourses. This material is toxic 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 : No unusual hazard if involved in a fire.

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 spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also Section 8 for additional information on hygiene measures.

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 pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

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 the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt

SECTION 6: Accidental release measures

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

- 7.1 Precautions for safe handling** : Keep away from heat, sparks and flame. No sparking tools should be used. Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture. Avoid inhalation of dust from sanding.
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
Put on appropriate personal protective equipment (see Section 8).
Never use pressure to empty. Container is not a pressure vessel.
Always keep in containers made from the same material as the original one.
Comply with the health and safety at work laws.
Do not allow to enter drains or watercourses.

When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

- 7.2 Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations.
Notes on joint storage
Keep away from: oxidising agents, strong alkalis, strong acids.
Additional information on storage conditions
Observe label precautions. Store between the following temperatures: 2 to 40°C (35.6 to 104°F). Store in a dry, cool and well-ventilated area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Keep away from sources of ignition. No smoking. Prevent unauthorised access. 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

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: 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

SECTION 8: Exposure controls/personal protection

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
bisphenol-A-epoxy resin, avg.mol. wght. ≤ 700	DNEL	Short term Dermal	8.3 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	12.3 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	8.3 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	12.3 mg/m ³	Workers	Systemic
	DNEL	Short term Dermal	3.6 mg/kg bw/day	Consumers	Systemic
	DNEL	Short term Inhalation	0.75 mg/m ³	Consumers	Systemic
	DNEL	Short term Oral	0.75 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Dermal	3.6 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Inhalation	0.75 mg/m ³	Consumers	Systemic
	DNEL	Long term Oral	0.75 mg/kg bw/day	Consumers	Systemic
oxirane, mono[(C12-14-alkyloxy)methyl]derivs	DNEL	Short term Dermal	17 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	68 mg/cm ²	Workers	Local
	DNEL	Short term Inhalation	29 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	9.8 mg/m ³	Workers	Local
	DNEL	Long term Dermal	3.9 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	13.8 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	1.7 mg/cm ²	Workers	Local
	DNEL	Long term Inhalation	0.98 mg/m ³	Workers	Local
	DNEL	Short term Dermal	10 mg/kg bw/day	Consumers	Systemic
	DNEL	Short term Inhalation	7.6 mg/m ³	Consumers	Systemic
	DNEL	Short term Oral	1219 mg/kg bw/day	Consumers	Systemic
	DNEL	Short term Dermal	40 mg/cm ²	Consumers	Local
	DNEL	Short term Inhalation	2.9 mg/m ³	Consumers	Local
	DNEL	Long term Dermal	2.35 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Inhalation	4.1 mg/m ³	Consumers	Systemic
	DNEL	Long term Oral	1 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Dermal	1 mg/cm ²	Consumers	Local
	DNEL	Long term Inhalation	1.46 mg/m ³	Consumers	Local

PNECs

SECTION 8: Exposure controls/personal protection

Product/ingredient name	Compartment Detail	Value	Method Detail
bisphenol-A-epoxy resin, avg.mol.wght. ≤ 700	Fresh water	3 µg/l	-
	Marine	0.3 µg/l	-
	Sewage Treatment Plant	10 mg/l	-
	Fresh water sediment	0.5 mg/kg dwt	-
	Marine water sediment	0.5 mg/kg dwt	-
	Sediment	0.05 mg/kg dwt	-
	Fresh water	0.0072 mg/l	-
oxirane, mono[(C12-14-alkyloxy)methyl] derivs	Marine	0.00072 mg/l	-
	Sewage Treatment Plant	10 mg/l	-
	Fresh water sediment	66.77 mg/kg dwt	-
	Marine water sediment	6.677 mg/kg dwt	-
	Soil	80.12 mg/kg dwt	-

8.2 Exposure controls

Appropriate engineering controls : Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapours below the OEL, suitable respiratory protection must be worn.

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 glasses with side shields. (EN166)

Skin protection

Hand protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The breakthrough time must be greater than the end use time of the product.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Always ensure that gloves are free from defects and that they are stored and used correctly.

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

Gloves : For prolonged or repeated handling, use the following type of gloves:

Recommended: > 8 hours (breakthrough time): butyl rubber, ethylene vinyl alcohol (EVAL)

The recommendation for the type or types of glove to use when handling this product is based on information from the following source:

EN 374-3 : 2003

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

Body protection : Wear overalls or long sleeved shirt. (EN 467)

SECTION 8: Exposure controls/personal protection

- 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** : If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators.
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.
Recommended: During fumigation/spraying wear suitable respiratory equipment. organic vapour (Type A) and particulate filter
- Environmental exposure controls** : Do not allow to enter drains or watercourses. 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.
- Colour** : Yellowish.
- Odour** : Slight
- pH** : Not available.
- Melting point/freezing point** : Not available.
- Initial boiling point and boiling range** : >200°C
- Flash point** : Closed cup: 130°C
- Evaporation rate** : <1 (butyl acetate = 1)
- Flammability (solid, gas)** : Not available.
- Burning time** : Not applicable.
- Burning rate** : Not applicable.
- Upper/lower flammability or explosive limits** : Not available.
- Vapour pressure** : <0.000001 kPa [20°C]
- Vapour density** : >1 [Air = 1]
- Relative density** : 1.11 to 1.16
- Solubility(ies)** : Not available.
- Solubility in water** : Not available.
- Partition coefficient: n-octanol/ water** : Not available.
- Auto-ignition temperature** : >450°C
- Decomposition temperature** : >200°C
- Viscosity** : Dynamic: 800 to 1100 mPa·s
- Explosive properties** : Not available.
- Oxidising properties** : Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

- 10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- 10.2 Chemical stability** : Stable under recommended storage and handling conditions (see Section 7).
- 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.
- 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** : Under normal conditions of storage and use, hazardous decomposition products should not be produced. If involved in a fire, toxic gases including CO, CO₂ and smoke can be generated.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

There are no data available on the mixture itself. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Based on the properties of the epoxy constituent(s) and considering toxicological data on similar mixtures, this mixture may be a skin sensitiser and an irritant. It contains low molecular weight epoxy constituents which are irritating to eyes, mucous membrane and skin. Repeated skin contact may lead to irritation and to sensitisation, possibly with cross-sensitisation to other epoxies. Skin contact with the mixture and exposure to spray mist and vapour should be avoided.

Based on the properties of epoxy constituent(s) and considering toxicological data on similar mixtures, this mixture may be a skin sensitiser and a severe irritant. It contains epoxy based reactive diluents which are moderate to severely irritating to eyes, mucous membrane and skin and are strong sensitisers. Repeated skin contact may lead to irritation and to hyper-sensitivity, possibly with cross-sensitisation to other epoxies. Single oral exposure to doses of the epoxy based reactive diluents at or close to the lethal dose has been shown to cause transient neurotoxic effects in animals in some cases. However, uptake through skin and by inhalation has not caused such effects in animals. Prolonged exposure to high concentration may cause adverse effects in target organs such as liver and kidney.

Contains bisphenol-A-epoxy resin, avg.mol.wght. ≤ 700, Formaldehyde, oligomeric reaction products with 1-chloro-2, 3-epoxypropane and phenol, oxirane, mono[(C12-14-alkyloxy)methyl] derivs.. May produce an allergic reaction.

Acute toxicity

SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
bisphenol-A-epoxy resin, avg.mol.wght. ≤ 700	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Mouse	20 g/kg	-
bisphenol-F-epoxy resin avg. mol.wght. oxirane, mono[(C12-14-alkyloxy)methyl] derivs	LD50 Oral	Rat	30 g/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	>150 mg/m ³	7 hours
	LD50 Oral	Rat	17100 mg/kg	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

Acute toxicity estimates

Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
bisphenol-A-epoxy resin, avg.mol.wght. ≤ 700	Skin - Mild irritant	Rabbit	-	-	-
	Skin - Oedema	Rabbit	1 to 1.5	-	-
	Skin - Erythema/Eschar	Rabbit	1.5 to 2	-	-
	Eyes - Cornea opacity	Rabbit	<1.7	-	-
	Eyes - Mild irritant	Rabbit	-	100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 microliters	-
	Skin - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
	bisphenol-F-epoxy resin avg. mol.wght. oxirane, mono[(C12-14-alkyloxy)methyl] derivs	Skin - Mild irritant	Rabbit	-	24 hours 500 microliters
Skin - Moderate irritant		Rabbit	-	24 hours 500 microliters	-
Skin - Primary dermal irritation index (PDII)		Rabbit	4.1	24 hours	-
Skin - Primary dermal irritation index (PDII)		Rabbit	5.75	24 hours	-
Eyes - Mild irritant		Rabbit	-	-	-

Conclusion/Summary

Skin : Causes skin irritation.

Eyes : Causes serious eye irritation.

Respiratory : Based on available data, the classification criteria are not met.

Sensitisation

SECTION 11: Toxicological information

Product/ingredient name	Route of exposure	Species	Result
bisphenol-A-epoxy resin, avg.mol.wght. ≤ 700 bisphenol-F-epoxy resin avg. mol.wght. oxirane, mono[(C12-14-alkyloxy)methyl] derivs	skin	Mouse	Sensitising
	skin	Guinea pig	Sensitising
	skin	Guinea pig	Sensitising

Conclusion/Summary

- Skin** : May cause an allergic skin reaction.
Respiratory : Based on available data, the classification criteria are not met.

Mutagenicity

Product/ingredient name	Test	Experiment	Result
bisphenol-A-epoxy resin, avg.mol.wght. ≤ 700	OECD 476	Experiment: In vitro Subject: Mammalian-Animal	Positive
	OECD 471	Subject: Bacteria	Positive
	OECD 478	Experiment: In vivo Subject: Mammalian-Animal	Negative
bisphenol-F-epoxy resin avg. mol.wght.	OECD 476	Experiment: In vitro Subject: Mammalian-Animal	Positive
	OECD 471	Subject: Bacteria	Positive
	OECD 474	Subject: Mammalian-Animal	Negative
oxirane, mono[(C12-14-alkyloxy)methyl] derivs	OECD 471	Subject: Bacteria	Positive
	OECD 476	Metabolic activation: with and without S9 metabolic activation Experiment: In vitro Subject: Mammalian-Animal	Negative
	OECD 474	Experiment: In vivo Subject: Mammalian-Animal	Negative
	OECD 475	Experiment: In vivo Subject: Mammalian-Animal	Negative

Conclusion/Summary : Based on available data, the classification criteria are not met.

Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure
bisphenol-A-epoxy resin, avg.mol.wght. ≤ 700	Negative - Oral - TDLo	Rat	-	2 years; 7 days per week
	Negative - Dermal - TDLo	Rat - Female	1000 mg/kg	2 years; 5 days per week
	Negative - Dermal - TDLo	Mouse - Male	100 mg/kg	2 years; 3 days per week

Conclusion/Summary : Based on available data, the classification criteria are not met.

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Developmental toxin	Species	Dose	Exposure
bisphenol-A-epoxy resin, avg.mol.wght. ≤ 700	Negative	-	-	Rat	Oral: 750 mg/kg	-
bisphenol-F-epoxy resin avg. mol.wght.	Negative	-	-	Rat	Oral: 540 mg/kg	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

Teratogenicity

SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
bisphenol-A-epoxy resin, avg.mol.wght. ≤ 700	Negative - Oral	Rat - Female	>540 mg/kg	-
	Negative - Dermal	Rabbit - Female	>300 mg/kg	-
	Negative - Oral	Rabbit - Female	>180 mg/kg	-
bisphenol-F-epoxy resinavg. mol.wght.	Negative - Unreported	Rabbit - Female	>300 mg/kg	-
	Negative - Unreported	Rat - Female	>200 mg/kg	-
oxirane, mono[(C12-14-alkyloxy)methyl] derivs	Negative - Unreported	Rat - Female	>200 mg/kg	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

There are no data available on the mixture itself.
Do not allow to enter drains or watercourses.

Product/ingredient name	Result	Species	Exposure
bisphenol-A-epoxy resin, avg.mol.wght. ≤ 700	Acute IC50 >11 mg/l	Algae	72 hours
	Acute LC50 2.1 mg/l	Daphnia spec.	48 hours
	Acute LC50 1.5 mg/l	Fish	96 hours
	Chronic NOEC 0.3 mg/l	Daphnia spec. - Daphnia magna	21 days
bisphenol-F-epoxy resinavg. mol.wght.	Acute EC50 1.8 mg/l	Algae	72 hours
	Acute EC50 2 mg/l	Daphnia spec.	24 hours
	Acute EC50 1.6 mg/l	Daphnia spec.	48 hours
	Acute IC50 >100 mg/l	Bacteria	3 hours
	Acute LC50 0.55 mg/l	Fish	96 hours
	Acute LC50 2 mg/l	Fish	96 hours
	Chronic NOEC 0.3 mg/l	Daphnia spec.	21 days
oxirane, mono[(C12-14-alkyloxy)methyl] derivs	Acute EC50 >100 mg/l	Bacteria	3 hours
	Acute EC50 7.2 mg/l	Daphnia spec.	48 hours
	Acute IC50 844 mg/l	Algae	72 hours
	Acute LC50 5000 mg/l	Fish	96 hours
	Acute LC50 1800 mg/l	Fish	96 hours

Conclusion/Summary : Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

SECTION 12: Ecological information

Product/ingredient name	Test	Result	Dose	Inoculum
bisphenol-A-epoxy resin, avg.mol.wght. ≤ 700	OECD 301B	12 % - Not readily - 28 days	-	-
bisphenol-F-epoxy resin avg. mol.wght. oxirane, mono[(C12-14-alkyloxy)methyl] derivs	OECD 301F	5 % - Not readily - 28 days	-	-
	-	0 % - Not readily - 28 days	-	-
	OECD 301F	57 to 65 % - Inherent - 7 days	-	-
	OECD 301D	35 % - Not readily - 28 days	-	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
bisphenol-A-epoxy resin, avg.mol.wght. ≤ 700	Fresh water 4 to 7 days	-	Not readily
bisphenol-F-epoxy resin avg. mol.wght.	-	-	Not readily
oxirane, mono[(C12-14-alkyloxy)methyl] derivs	-	-	Not readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
bisphenol-A-epoxy resin, avg.mol.wght. ≤ 700	3.242	31	low
bisphenol-F-epoxy resin avg. mol.wght.	2.7 to 3.6	-	high
oxirane, mono[(C12-14-alkyloxy)methyl] derivs	3.77	160 to 263	high

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Nonvolatile liquid.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

12.6 Other adverse effects : 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 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 : Yes.

SECTION 13: Disposal considerations

Disposal considerations : Do not allow to enter drains or watercourses.
 Dispose of according to all federal, state and local applicable regulations.
 If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.
 For further information, contact your local waste authority.

European waste catalogue (EWC)

The European Waste Catalogue classification of this product, when disposed of as waste, is:

Waste code	Waste designation
08 01 11*	waste paint and varnish containing organic solvents or other dangerous substances

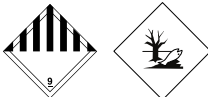

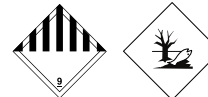
Packaging

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.

Disposal considerations : Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers.
 Empty containers must be scrapped or reconditioned.
 Not emptied containers are hazardous waste.

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 spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number	UN3082	UN3082	UN3082
14.2 UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. Limited quantity (bisphenol-F-epoxy resin avg.mol.wght. < 700)	Environmentally hazardous substance, liquid, n.o.s. Limited quantity Marine pollutant (bisphenol-F-epoxy resin avg.mol.wght. < 700)	Environmentally hazardous substance, liquid, n.o.s. (bisphenol-F-epoxy resin avg. mol.wght. < 700)
14.3 Transport hazard class(es)	9 	9 	9 
14.4 Packing group	III	III	III
14.5 Environmental hazards	Yes.	Yes.	Yes.
Additional information	Limited quantity: LQ7 Remarks: (≤ 5L:) Limited Quantity - ADR/IMDG 3.4 ADR Tunnel code: (E)	Emergency schedules (EmS): F-A + S-F Marine pollutant (P) Remarks: (≤ 5L:) Limited Quantity - ADR/IMDG 3.4.6	Passenger and Cargo Aircraft Quantity limitation: 450 L Packaging instructions: 964 Cargo Aircraft Only Quantity limitation: 450 L Packaging instructions: 964 Limited Quantities - Passenger Aircraft Quantity limitation: 30 Kg Packaging instructions: Y 964

SECTION 14: Transport information

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.

SECTION 15: Regulatory information

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

The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

CN code : 3907 30 00

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

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Other EU regulations

VOC for Ready-for-Use Mixture : 2004/42/EC - IIA/j: 140g/l (2007) 140g/l (2010). <= 10g/l VOC.

Europe inventory : All components are listed or exempted.

National regulations

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

SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

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
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- vPvB = Very Persistent and Very Bioaccumulative

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

Classification	Justification
Skin Irrit. 2, H315	Expert judgment
Eye Irrit. 2, H319	Expert judgment
Skin Sens. 1, H317	Expert judgment
Aquatic Chronic 2, H411	Expert judgment

SECTION 16: Other information

Full text of abbreviated H statements	: H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H411 Toxic to aquatic life with long lasting effects.
Full text of classifications [CLP/GHS]	: Aquatic Chronic 2, H411 AQUATIC TOXICITY (CHRONIC) - Category 2 Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 Skin Irrit. 2, H315 SKIN CORROSION/IRRITATION - Category 2 Skin Sens. 1, H317 SKIN SENSITIZATION - Category 1
Full text of abbreviated R phrases	: R38- Irritating to skin. R36/38- Irritating to eyes and skin. R43- May cause sensitisation by skin contact. R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Full text of classifications [DSD/DPD]	: Xi - Irritant N - Dangerous for the environment
Date of printing	: 1/04/2015.
Date of issue/ Date of revision	: 16/10/2014.
Date of previous issue	: 16/10/2014.
Version	: 1

Notice to reader

The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.