

**BETOFIX SW component A**

Date of creation	23. May 2015	Revision no.	3
Date of revision	02. May 2017	Version	4

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

- 1.1 Product identifier  
Substance / mixture  
Number
- BETOFIX SW component A  
mixture  
2-38
- 1.2 Relevant identified uses of the substance or mixture and uses advised against  
Intended use of the mixture
- Two-component moisture tolerant protective coating on the basis of epoxy resins
- Not recommended use of the mixture
- The product should not be used in ways other than those referred in Section 1.
- 1.3 Details of the supplier of the safety data sheet  
Manufacturer
- Name or trade name  
Address  
Phone  
Fax  
E-mail  
Web address
- BETOSAN s.r.o.  
Na Dolinách 28, Praha 4, 147 00  
Czech Republic  
241 431 212  
241 431 212  
praha@betosan.cz  
www.betosan.cz
- Competent person responsible for the safety data sheet  
Name  
E-mail
- BETOSAN s.r.o.  
praha@betosan.cz
- 1.4 Emergency telephone number  
Toxicological Information Centre, Na Bojišti 1, Praha, Tel.: non-stop 224 919 293 or 224 915 402, Information on health risks only - acute poisoning of humans and animals

**SECTION 2: Hazards identification**

- 2.1 Classification of the substance or mixture  
Classification of the mixture in accordance with Regulation (EC) No 1272/2008  
The mixture is classified as dangerous.

Flam. Liq. 3, H226  
Skin Irrit. 2, H315  
Skin Sens. 1, H317  
Eye Dam. 1, H318  
Muta. 1B, H340  
Carc. 1B, H350  
Aquatic Chronic 3, H412

Full text of all classifications and H-phrases is given in the section 16.

The most serious adverse physico-chemical effects

Flammable liquid and vapour.

The most serious adverse effects on human health and the environment

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. May cause genetic defects. May cause cancer. Toxic to aquatic life with long lasting effects.

- 2.2 Label elements  
Hazard pictogram



Signal word  
Danger

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**Hazardous substances**

reaction product: bisphenol-A-(epichlorhydrin)

2-methylpropan-1-ol

Solvent naphtha (petroleum), light arom.

**Standard hazardous statements**

- H226 Flammable liquid and vapour.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H340 May cause genetic defects.
- H350 May cause cancer.
- H412 Harmful to aquatic life with long lasting effects.

**Instructions for safe handling**

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P233 Keep container tightly closed.
- P243 Take precautionary measures against static discharge.
- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P308+P313 IF exposed or concerned: Get medical advice/attention.
- P405 Store locked up.
- P501 Dispose of contents/container to in accordance with local regulations.

**Additional information**

EUH 205 Contains epoxy constituents. May produce an allergic reaction.

2.3 Other hazards  
not available

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

3.2 Mixtures

**Chemical characterization**

Mixture of substances specified below and additives.

Mixture contains these hazardous substances and substances with the highest permissible concentration in the working environment

Identification numbers	Name of the substance	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note.
Index: 603-074-00-8 CAS: 25068-38-6 EC: 500-033-5	reaction product: bisphenol-A-(epichlorhydrin)	<25	Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	4
Index: 601-022-00-9 CAS: 1330-20-7 EC: 215-535-7	xylene	<10	Flam. Liq. 3, H226 Acute Tox. 4, H312, H332 Skin Irrit. 2, H315	1, 3
Index: 603-108-00-1 CAS: 78-83-1 EC: 201-148-0	2-methylpropan-1-ol	<9	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335, H336	
Index: 649-356-00-4 CAS: 64742-95-6 EC: 265-199-0	Solvent naphtha (petroleum), light arom.	<9	Asp. Tox. 1, H304 Muta. 1B, H340 Carc. 1B, H350	2
Index: 601-023-00-4 CAS: 100-41-4 EC: 202-849-4	ethylbenzene	<2.5	Flam. Liq. 2, H225 Acute Tox. 4, H332	3
Index: 603-064-00-3 CAS: 107-98-2 EC: 203-539-1	1-methoxy-2-propanol	<2.5	Flam. Liq. 3, H226 STOT SE 3, H336	3

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## Notes

- 1 Note C: Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.
- 2 Note P: The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0,1 % w/w benzene (EINECS No 200-753-7). When the substance is not classified as a carcinogen at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 (Table 3.1) or the S-phrases (2-)23-24-62 (Table 3.2) shall apply. This note applies only to certain complex oil-derived substances in Part 3.
- 3 Substance for which exposure limits of Community for working environment exist.
- 4 The substance with a specific concentration limit

Full text of all classifications and H-phrases is given in the section 16.

## SECTION 4: First aid measures

## 4.1 Description of first aid measures

If any health problems are manifested or if in doubt, inform a doctor and show him information from this Safety Data Sheet. If unconscious, put the person in the stabilized (recovery) position on his side with his head slightly bent backwards and make sure that respiratory pathways are free; never induce vomiting. If the person vomits by himself, make sure that the vomit is not inhaled. In life threatening conditions first of all provide resuscitation of the affected person and ensure medical assistance. Respiratory arrest - provide artificial respiration immediately. Cardiac arrest - provide indirect cardiac massage immediately.

## Inhalation

Terminate the exposure immediately; move the affected person to fresh air. Protect the person against growing cold. Provide medical treatment, especially if cough, dyspnoea or other symptoms persist.

## Skin contact

Remove contaminated clothes. Wash the affected area with plenty of water, lukewarm if possible. Soap, soap solution or shampoo should be used if there is no skin injury. Provide medical treatment, especially if skin irritation persists.

## Eye contact

Immediately flush eyes with running water, open eyelids (even violently); if a victim has contact lenses, remove them immediately. Rinse for at least 10 minutes. Ensure medical, preferably professional treatment.

## Ingestion

DO NOT INDUCE VOMITING - even the inducing of vomiting by itself may cause complications (inhalation of the substance in respiratory pathways and lungs; mechanical damage to the mucous membrane of the pharynx; may pose a higher threat than the ingested substance in this case). If possible, give activated carbon in the amount of 5 crushed tablets. Provide medical treatment.

## 4.2 Most important symptoms and effects, both acute and delayed

## Inhalation

Possible irritation of respiratory pathways, cough, headache.

## Skin contact

Painful reddening, irritation.

## Eye contact

not available

## Ingestion

Irritation, nausea.

## 4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

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**SECTION 5: Firefighting measures**

- 5.1 Extinguishing media  
Suitable extinguishing media  
alcohol-resistant foam, carbon dioxide, powder, water spray jet, water mist  
Unsuitable extinguishing media  
water - full jet
- 5.2 Special hazards arising from the substance or mixture  
Heavy, black smoke is produced in a fire, with potential development of carbon monoxide and dioxide and other toxic gases. Inhalation of hazardous degradation (pyrolysis) products may cause serious health damage.
- 5.3 Advice for firefighters  
Use a self-contained breathing apparatus and full-body protective clothing. Closed containers with the mixture near the fire should be cooled with water. Do not allow run-off of contaminated fire extinguishing material to enter drains or surface and ground water.

**SECTION 6: Accidental release measures**

- 6.1 Personal precautions, protective equipment and emergency procedures  
Remove all ignition sources; provide sufficient ventilation. Use personal protective equipment for work. Follow the instructions in Sections 7 and 8.
- 6.2 Environmental precautions  
Prevent contamination of the soil and entering surface or ground water. Do not allow to enter drains.
- 6.3 Methods and material for containment and cleaning up  
Spilled mixture should be covered with suitable (nonflammable) absorbing material (sand, kieselguhr, earth and other suitable absorption materials); to be contained in well closed containers and removed as per Section 13. Collected material should be disposed of in accordance with locally valid regulations. Upon an escape of large quantities of the mixture, inform the Fire Department and the Environmental Department of the Municipal Authority with extended scope of competencies. After removal of the mixture, wash the contaminated site with plenty of water or another suitable cleaning material. Do not use solvents.
- 6.4 Reference to other sections  
7, 8 and 13.

**SECTION 7: Handling and storage**

- 7.1 Precautions for safe handling  
Prevent formation of gases and vapours in flammable or explosive concentrations and concentrations exceeding the highest permissible concentration in the occupational environment. The mixture should be used only in areas where it is not in contact with open fire and other ignition sources. No smoking. Protect against direct sunlight. Electrostatic charge may form during use; use only earthed piping (tubing) when repumping. Use of antistatic clothes and footwear is recommended. Use non-sparking tools. Do not inhale gases and vapours. Prevent contact with skin and eyes. Use personal protective equipment as per Section 8. Observe valid legal regulations laying down safety and health protection.
- 7.2 Conditions for safe storage, including any incompatibilities  
Store in tightly closed containers in cold, dry and well ventilated areas designated for this purpose. Do not expose to sunlight.
- |                     |  |
|---------------------|--|
| Storage class       | 3A - Flammable liquids (flash point below 55 °C) |
| Content             | 10 kg  |
| Type of packaging   | plechovka  |
| Material of package | FE (40), Steel (Metals)                          |
- 

FE
- The specific requirements or rules relating to the substance/mixture  
Solvent vapours are heavier than air and accumulate especially near the floor where they may form an explosive mixture with the air.
- 7.3 Specific end use(s)  
not available

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**SECTION 8: Exposure controls/personal protection****8.1 Control parameters**

The mixture contains substances for which the following concentration limits in the workplace are determined.

## European Union

Name of the substance (component)	Type	Time of exposure	Value	Note	Source
xylene (CAS: 1330-20-7)	OEL	8 hours	221 mg/m <sup>3</sup>	skin	sm rnice EU
	OEL	8 hours	50 ppm	skin	
	OEL	Short-term	442 mg/m <sup>3</sup>	skin	
	OEL	Short-term	100 ppm	skin	
ethylbenzene (CAS: 100-41-4)	OEL	8 hours	442 mg/m <sup>3</sup>	skin	sm rnice EU
	OEL	8 hours	100 ppm	skin	
	OEL	Short-term	884 mg/m <sup>3</sup>	skin	
	OEL	Short-term	200 ppm	skin	
1-methoxy-2-propanol (CAS: 107-98-2)	OEL	8 hours	375 mg/m <sup>3</sup>	skin	sm rnice EU
	OEL	8 hours	100 ppm	skin	
	OEL	Short-term	568 mg/m <sup>3</sup>	skin	
	OEL	Short-term	150 ppm	skin	

**8.2 Exposure controls**

Follow usual measures for health protection at work and especially for good ventilation. This can be achieved only by local suction or efficient general ventilation. If exposure limits cannot be observed in this mode, suitable protection of respiratory pathways must be used. Do not eat, drink and smoke during work. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest.

## Eye/face protection

Protective goggles or face shield (based on the nature of the work performed).

## Skin protection

Hand protection: Protective gloves resistant against the product. Observe recommendations of the particular manufacturer of the gloves in the choice of their appropriate thickness, material and permeability. Use barrier creams for skin protection, they should however not be applied once exposure has occurred. Observe other recommendations of the manufacturer. Other protection: Protective antistatic clothing made of natural fibres (cotton) or synthetic fibres resistant against elevated temperatures. Contaminated skin should be washed thoroughly.

## Respiratory protection

Mask with a filter against organic vapours or a self-contained breathing apparatus as appropriate if exposure limit values of toxic substances are exceeded or in a poorly ventilated environment.

## Thermal hazard

not available

## Environmental exposure controls

Observe usual measures for protection of the environment, see Section 6.2.

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**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

Appearance	viscous liquid
Physical state	liquid at 20°C
color	different colors
Odour	of xylene, butanol
Odour threshold	data not available
pH	data not available
Melting point/freezing point	data not available
Initial boiling point and boiling range	100 -190 °C
Flash point	25 °C
Evaporation rate	0,7
Flammability (solid, gas)	data not available
Upper/lower flammability or explosive limits	
flammability limits	data not available
explosive limits	
bottom	1 %
upper	12 %
Vapour pressure	0,8 kPa at 20 °C
Vapour density	> 1
Relative density	data not available
Solubility(ies)	
solubility in water	insoluble
solubility in fats	data not available
Partition coefficient: n-octanol/water	data not available
Auto-ignition temperature	data not available
Decomposition temperature	data not available
Viscosity	> 30
Explosive properties	data not available
Oxidising properties	data not available

**9.2 Other information**

Density	1,5 g/cm <sup>3</sup>
auto-ignition temperature	data not available

**SECTION 10: Stability and reactivity****10.1 Reactivity**

The mixture is flammable.

**10.2 Chemical stability**

Under normal conditions, the mixture is stable.

**10.3 Possibility of hazardous reactions**

Under normal conditions, the mixture is stable.

**10.4 Conditions to avoid**

The mixture is stable and no degradation occurs under normal use. Protect against flames, sparks, overheating and against frost.

**10.5 Incompatible materials**

Protect against strong acids, bases and oxidizing agents. Thereby a dangerous exothermic reaction will be prevented.

**10.6 Hazardous decomposition products**

Not developed under normal uses. Dangerous products are formed at high temperature and in fire, such as carbon monoxide and carbon dioxide, heavy smoke and nitrogen oxides.

**SECTION 11: Toxicological information****11.1 Information on toxicological effects**

No toxicological data is available for the mixture.

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**Acute toxicity**

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

**1-methoxy-2-propanol**

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral	LD 50	6600 mg/kg		Rat	
Dermal	LD 50	13000 mg/kg		Rat	

**ethylbenzene**

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral	LD 50	3500 mg/kg		Rat	
Dermal	LD 50	17800 mg/kg		Rat	
Inhalation (vapor)	LC 50	17400 mg/kg	4 hour	Rat	

**reaction product: bisphenol-A-(epichlorhydrin)**

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral	LD 50	30000 mg/kg		Rat	
Skin	LD 50	>2000 mg/kg		Rabbit	

**xylene**

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral	LD 50	4300 mg/kg		Rat	
Dermal	LD 50	3200 mg/kg		Rabbit	

**Skin corrosion/irritation**

Causes skin irritation.

**Serious eye damage/irritation**

Causes serious eye damage.

**Respiratory or skin sensitisation**

May cause an allergic skin reaction.

**Germ cell mutagenicity**

May cause genetic defects.

**Carcinogenicity**

May cause cancer.

**Reproductive toxicity**

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

**Toxicity for specific target organ - single exposure**

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

**Toxicity for specific target organ - repeated exposure**

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

**Aspiration hazard**

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

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Concentrations that exceed prescribed occupational exposure limit may result in adverse health effects such. Mucous membrane and respiratory organs, kidney impairment, liver, and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin, and as a result, non-allergic contact dermatitis and absorption through the skin. Repeated or prolonged contact with the skin can cause dermatitis. When injected into the eyes, the liquid may cause irritation and reversible damage.

**SECTION 12: Ecological information****12.1 Toxicity****Acute toxicity**

Toxic to aquatic life with long lasting effects.

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Parameter	Value	Time of exposure	Species	Environment
LC 50	1-10 mg/kg	96 hour	Fishes (Oncorhynchus mykiss)	
EC 50	< 10 mg/kg	48 hour	Invertebrates	
IC 50	< 10 mg/kg	72 hour	Algae (Selenastrum capricornutum)	

**xylene**

Parameter	Value	Time of exposure	Species	Environment
LC 50	26.7 mg/l		Fishes (Pimephales promelas)	

**12.2 Persistence and degradability**

The mixture is biodegradable.

**12.3 Bioaccumulative potential**

Solvent naphtha - high

**12.4 Mobility in soil**

The product is soluble and mobile in water and soil. Contamination of water courses may occur in case of rain.

**12.5 Results of PBT and vPvB assessment**

The mixture is not classified as PBT or vPvB.

**12.6 Other adverse effects**

not available

**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to an authorised person for waste removal (specialized company) authorised for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste. Empty containers may be used at waste incinerators to produce energy or deposited in a dump with appropriate classification. Perfectly cleaned containers can be submitted for recycling. Hazard of environmental contamination; remove waste in accordance with local and/or national regulations.

**Legislation of waste**

Council Directive 75/442/EEC on waste, at last amended. Council Directive 91/689/EEC on hazardous waste, as last amended. Decision 94/3/EC establishing a list of wastes, as last amended.

**Code of type of waste**

08 01 11 waste paint and varnish containing organic solvents or other dangerous substances

**Code of type of waste packaging**

15 01 10 packaging containing residues of or contaminated by dangerous substances



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## SECTION 14: Transport information

- 14.1 UN number  
UN 1263
- 14.2 UN proper shipping name  
PAINT
- 14.3 Transport hazard class(es)  
3 Flammable liquids
- 14.4 Packing group  
III - substances presenting low danger
- 14.5 Environmental hazards  
not available
- 14.6 Special precautions for user  
Reference in Sections 4 to 8.
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code  
not available

## Additional information

The hazard identification number	30	(Kemler Code)
UN number	1263	
Classification code	F1	
Safety signs	3	



## Air transport - ICAO/IATA

Packaging instructions passenger	355
Cargo packaging instructions	366

## Marine transport - IMDG

EMS (emergency plan)	F-E, S-E
MFAG	310
Marine pollution	No

## SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture  
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006, as amended. Directives 67/548/EEC, as amended, and 1999/45/EC, as amended.
- 15.2 Chemical safety assessment  
not available

## SECTION 16: Other information

A list of standard risk phrases used in the safety data sheet

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

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H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H340	May cause genetic defects.
H350	May cause cancer.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Guidelines for safe handling used in the safety data sheet	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container to in accordance with local regulations.

A list of additional standard phrases used in the safety data sheet

EUH 205 Contains epoxy constituents. May produce an allergic reaction.

Other important information about human health protection

The product must not be - unless specifically approved by the manufacturer/importer - used for purposes other than as per Section 1. The user is responsible for adherence to all related health protection regulations.

Key to abbreviations and acronyms used in the safety data sheet

ADR	European agreement concerning the international carriage of dangerous goods by road
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
DNEL	Derived no-effect level
EC50	Concentration of a substance when it is affected 50% of the population
EINECS	European Inventory of Existing Commercial Chemical Substances
Ems	Emergency plan
ES	Identification code for each substance listed in EINECS
EU	European Union
IATA	International Air Transport Association
IBC	International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
IC50	Concentration causing 50 % blockade
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Transport
INCI	International Nomenclature of Cosmetic Ingredients
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry
LC50	Lethal concentration of a substance in which it can be expected death of 50% of the population
LD50	Lethal dose of a substance in which it can be expected death of 50% of the population
LOAEC	Lowest observed adverse effect concentration
LOAEL	Lowest observed adverse effect level
Log Kow	Octanol-water partition coefficient
MARPOL	International Convention for the Prevention of Pollution From Ships
MFAG	First Aid Manual

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NOAEC	No observed adverse effect concentration
NOAEL	No observed adverse effect level
NOEC	No observed effect concentration
NOEL	No observed effect level
OEL	Occupational Exposure Limits
PBT	Persistent, Bioaccumulative and Toxic
PEL	Permissible Exposure Limit
PNEC	Predicted no-effect concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of chemicals (EP and Council Regulation (EC) No 1907/2006)
RID	Agreement on the transport of dangerous goods by rail
UN	Four-figure identification number of the substance or article taken from the UN Model Regulations
UVCB	Substances of unknown or variable composition, complex reaction products or biological materials
VOC	Volatile organic compounds
vPvB	Very Persistent and very Bioaccumulative
w/w	Weight by weight

Acute Tox.	Acute toxicity
Aquatic Chronic	Hazardous to the aquatic environment
Asp. Tox.	Aspiration hazard
Carc.	Carcinogenicity
Eye Dam.	Serious eye damage
Eye Irrit.	Eye irritation
Flam. Liq.	Flammable liquid
Muta.	Germ cell mutagenicity
Skin Irrit.	Skin irritation
Skin Sens.	Skin sensitization
STOT SE	Specific target organ toxicity - single exposure

## Training guidelines

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the mixture.

Recommended restrictions of use  
not available

Information about data sources used to compile the Safety Data Sheet

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended, REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended, COMMISSION REGULATION (EU) No 453/2010, COUNCIL DIRECTIVE 67/548/EEC as amended and 1999/45/EC, COMMISSION REGULATION (EU) No 286/2011 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures.

The changes (which information has been added, deleted or modified)

Modification of data on the composition of the mixture and the resulting changes.

## Statement

The Safety Data Sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.

**BETOFIX SW component B**

Date of creation	24. March 2015	Revision no.	2
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**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

- 1.1 Product identifier  
Substance / mixture  
Number
- BETOFIX SW component B  
mixture  
2-38
- 1.2 Relevant identified uses of the substance or mixture and uses advised against  
Intended use of the mixture
- Two-component moisture tolerant protective coating on the basis of epoxy resins
- Not recommended use of the mixture
- The product should not be used in ways other than those referred in Section 1.
- 1.3 Details of the supplier of the safety data sheet  
Manufacturer
- Name or trade name  
Address  
Phone  
Fax  
E-mail  
Web address
- BETOSAN s.r.o.  
Na Dolinách 28, Praha 4, 147 00  
Czech Republic  
241 431 212  
241 431 212  
praha@betosan.cz  
www.betosan.cz
- Competent person responsible for the safety data sheet  
Name  
E-mail
- BETOSAN s.r.o.  
praha@betosan.cz
- 1.4 Emergency telephone number  
Toxicological Information Centre, Na Bojišti 1, Praha, Tel.: non-stop 224 919 293 or 224 915 402, Information on health risks only - acute poisoning of humans and animals

**SECTION 2: Hazards identification**

- 2.1 Classification of the substance or mixture  
Classification of the mixture in accordance with Regulation (EC) No 1272/2008  
The mixture is classified as dangerous.
- Flam. Liq. 3, H226  
Acute Tox. 4, H312, H332  
Skin Corr. 1B, H314  
Skin Sens. 1, H317  
Aquatic Chronic 2, H411
- Full text of all classifications and H-phrases is given in the section 16.
- The most serious adverse physico-chemical effects  
Flammable liquid and vapour.
- The most serious adverse effects on human health and the environment  
Harmful in contact with skin. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Harmful if inhaled. Toxic to aquatic life with long lasting effects.

- 2.2 Label elements  
Hazard pictogram



Signal word  
Danger

## BETOFI X SW component B

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**Hazardous substances**

xylene  
ethylbenzene  
Fenol, methylstyrenovaný  
3,6-diazaoctanethylenediamin

**Standard hazardous statements**

H226 Flammable liquid and vapour.  
H312 Harmful in contact with skin.  
H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H332 Harmful if inhaled.  
H411 Toxic to aquatic life with long lasting effects.

**Instructions for safe handling**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233 Keep container tightly closed.  
P243 Take precautionary measures against static discharge.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P405 Store locked up.  
P501 Dispose of contents/container to local regulations.

**Requirements for child-resistant fastenings and tactile warning of danger**

Container must carry a tactile warning of danger. Container must be fitted with child-resistant fastening.

2.3 Other hazards  
not available

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

3.2 Mixtures

**Chemical characterization**

Mixture of substances specified below and additives.

Mixture contains these hazardous substances and substances with the highest permissible concentration in the working environment

Identification numbers	Name of the substance	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note.
Index: 601-022-00-9 CAS: 1330-20-7 EC: 215-535-7	xylene	25-50	Flam. Liq. 3, H226 Acute Tox. 4, H312, H332 Skin Irrit. 2, H315	1, 2
Index: 601-023-00-4 CAS: 100-41-4 EC: 202-849-4	ethylbenzene	2,5-10	Flam. Liq. 2, H225 Acute Tox. 4, H332	2
CAS: 68512-30-1	Fenol, methylstyrenovaný	2,5-10	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 3, H412	
Index: 612-059-00-5 CAS: 112-24-3 EC: 203-950-6	3,6-diazaoctanethylenediamin	1-2,5	Acute Tox. 4, H312 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Chronic 3, H412	
CAS: 111-40-1 EC: 203-865-4	Diethylenetriamine	1-2,5	Acute Tox. 4, H312, H302 Skin Corr. 1B, H314 Skin Sens. 1, H317	
CAS: 225795-35-7	2,4,6-tris[[3-(dimethylamino)propylamino]methyl]fenol	1-2,5	Acute Tox. 4, H302 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	

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## Notes

- Note C: Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.
- Substance for which exposure limits of Community for working environment exist.

Full text of all classifications and H-phrases is given in the section 16.

**SECTION 4: First aid measures****4.1 Description of first aid measures**

If any health problems are manifested or if in doubt, inform a doctor and show him information from this Safety Data Sheet. If unconscious, put the person in the stabilized (recovery) position on his side with his head slightly bent backwards and make sure that respiratory pathways are free; never induce vomiting. If the person vomits by himself, make sure that the vomit is not inhaled. In life threatening conditions first of all provide resuscitation of the affected person and ensure medical assistance. Respiratory arrest - provide artificial respiration immediately. Cardiac arrest - provide indirect cardiac massage immediately.

**Inhalation**

Terminate the exposure immediately; move the affected person to fresh air. Protect the person against growing cold. Provide medical treatment, especially if cough, dyspnoea or other symptoms persist.

**Skin contact**

Remove contaminated clothes. Wash the affected area with plenty of water, lukewarm if possible. Soap, soap solution or shampoo should be used if there is no skin injury. Provide medical treatment, especially if skin irritation persists.

**Eye contact**

Immediately flush eyes with running water, open eyelids (even violently); if a victim has contact lenses, remove them immediately. Rinse for at least 10 minutes. Ensure medical, preferably professional treatment.

**Ingestion**

DO NOT INDUCE VOMITING - even the inducing of vomiting by itself may cause complications (inhalation of the substance in respiratory pathways and lungs; mechanical damage to the mucous membrane of the pharynx; may pose a higher threat than the ingested substance in this case). If possible, give activated carbon in the amount of 5 crushed tablets. Provide medical treatment.

**4.2 Most important symptoms and effects, both acute and delayed****Inhalation**

Possible irritation of respiratory pathways, cough, headache.

**Skin contact**

Painful reddening, irritation.

**Eye contact**

not available

**Ingestion**

Irritation, nausea.

**4.3 Indication of any immediate medical attention and special treatment needed**

Symptomatic treatment.

**SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing media**

alcohol-resistant foam, carbon dioxide, powder, water spray jet, water mist

**Unsuitable extinguishing media**

water - full jet

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

Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. It is recommended to use a suitable breathing apparatus. Closed containers exposed to fire with water. Do not release runoff from fire to sewers or waterways.

**5.3 Advice for firefighters**

When the fire alarm action necessary to protect persons independent breathing apparatus.


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**SECTION 6: Accidental release measures**

- 6.1 Personal precautions, protective equipment and emergency procedures  
Remove all ignition sources; provide sufficient ventilation. Use personal protective equipment for work. Follow the instructions in Sections 7 and 8.
- 6.2 Environmental precautions  
Prevent contamination of the soil and entering surface or ground water. Do not allow to enter drains.
- 6.3 Methods and material for containment and cleaning up  
Spilled mixture should be covered with suitable (nonflammable) absorbing material (sand, kieselguhr, earth and other suitable absorption materials); to be contained in well closed containers and removed as per Section 13. Collected material should be disposed of in accordance with locally valid regulations. Upon an escape of large quantities of the mixture, inform the Fire Department and the Environmental Department of the Municipal Authority with extended scope of competencies. After removal of the mixture, wash the contaminated site with plenty of water or another suitable cleaning material. Do not use solvents.
- 6.4 Reference to other sections  
7, 8 and 13.

**SECTION 7: Handling and storage**

- 7.1 Precautions for safe handling  
The vapors are heavier than air and may concentrate near the floor. Vapors may form explosive mixture with air. Prevent the creation of flammable or explosive concentrations of vapor in air and avoid vapor concentrations higher than the occupational exposure limits.  
The product may only be used in areas from open flames or other sources of ignition. Electrical equipment should be protected to appropriate standards.  
In preparation can induce an electrostatic charge, when transferring from one container to another always use a ground via the conductive tape. Operators should be equipped with an anti-static footwear and clothing. Floors should be conductive.  
Keep container tightly closed. Keep away from heat, sparks and flame. No sparking tools. Avoid contact with eyes and skin. Avoid breathing vapor and spray mist arising from the application of this product. Smoking, consumption of food and drink in areas where this material is handled and where it is stored, is prohibited. Wear appropriate personal protective equipment (see Section 8).  
Never use pressure to empty: container is not a pressure vessel. Always keep the material in its original packaging. Comply with the health and safety at work.  
If the operator has to work inside the spray booth, whether spraying or not, ventilation is unlikely to be sufficient in all cases to remove particulates and solvent vapor. In such circumstances they should wear a respirator during the spraying compressed air until the concentration of particles and vapors has fallen below the exposure limits.
- 7.2 Conditions for safe storage, including any incompatibilities  
Store in accordance with regulations. Observe the safety precautions on the label. Keep in a cool, well-ventilated place away from incompatible materials and ignition sources. Keep away from heat and direct sunlight. Keep away from oxidizing agents, strongly alkaline and strongly acidic materials, amines, alcohols and water. Do not smoke. Prevent unauthorized access. Opened containers must be carefully resealed and kept upright to prevent leakage.  
Do not pour into drains.  
Storage class  
Content  
Type of packaging  
Material of package
- 8A - Combustible corrosive substances  
1,8 kg  
plechovka  
FE (40), Steel (Metals)
- 
- FE
- 7.3 Specific end use(s)  
not available

**SECTION 8: Exposure controls/personal protection**

- 8.1 Control parameters  
The mixture contains substances for which the following concentration limits in the workplace are determined.

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European Union

Name of the substance (component)	Type	Time of exposure	Value	Note	Source
xylene (CAS: 1330-20-7)	OEL	8 hours	221 mg/m <sup>3</sup>	skin	sm rnice EU
	OEL	8 hours	50 ppm	skin	
	OEL	Short-term	442 mg/m <sup>3</sup>	skin	
	OEL	Short-term	100 ppm	skin	
ethylbenzene (CAS: 100-41-4)	OEL	8 hours	442 mg/m <sup>3</sup>	skin	sm rnice EU
	OEL	8 hours	100 ppm	skin	
	OEL	Short-term	884 mg/m <sup>3</sup>	skin	
	OEL	Short-term	200 ppm	skin	

### 8.2 Exposure controls

Follow usual measures for health protection at work and especially for good ventilation. This can be achieved only by local suction or efficient general ventilation. If exposure limits cannot be observed in this mode, suitable protection of respiratory pathways must be used. Do not eat, drink and smoke during work. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest.

**Eye/face protection**

Protective goggles or face shield (based on the nature of the work performed).

**Skin protection**

Hand protection: Protective gloves resistant against the product. Observe recommendations of the particular manufacturer of the gloves in the choice of their appropriate thickness, material and permeability. Use barrier creams for skin protection, they should however not be applied once exposure has occurred. Observe other recommendations of the manufacturer. Other protection: Protective antistatic clothing made of natural fibres (cotton) or synthetic fibres resistant against elevated temperatures. Contaminated skin should be washed thoroughly.

**Respiratory protection**

Mask with a filter against organic vapours or a self-contained breathing apparatus as appropriate if exposure limit values of toxic substances are exceeded or in a poorly ventilated environment.

**Thermal hazard**

not available

**Environmental exposure controls**

Observe usual measures for protection of the environment, see Section 6.2.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance	liquid, dispersion
Physical state	liquid at 20°C
color	different color shades
Odour	charakteristic (xylen)
Odour threshold	data not available
pH	data not available
Melting point/freezing point	data not available
Initial boiling point and boiling range	136 °C
Flash point	27 °C
Evaporation rate	data not available
Flammability (solid, gas)	data not available
Upper/lower flammability or explosive limits	
flammability limits	data not available



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explosive limits	
bottom	1 %
upper	7 %
Vapour pressure	data not available
Vapour density	6,5 hPa
Relative density	data not available
Solubility(ies)	
solubility in water	insoluble
solubility in fats	data not available
Partition coefficient: n-octanol/water	data not available
Auto-ignition temperature	data not available
Decomposition temperature	400 °C
Viscosity	data not available
Explosive properties	data not available
Oxidising properties	data not available
9.2 Other information	
Density	0,95 g/cm <sup>3</sup>
auto-ignition temperature	data not available

### SECTION 10: Stability and reactivity

- 10.1 Reactivity  
Mixture is flammable.
- 10.2 Chemical stability  
Under normal conditions, the mixture is stable.
- 10.3 Possibility of hazardous reactions  
Under normal conditions, the mixture is stable.
- 10.4 Conditions to avoid  
The mixture is stable and no degradation occurs under normal use. Protect against flames, sparks, overheating and against frost.
- 10.5 Incompatible materials  
Protect against strong acids, bases and oxidizing agents. Thereby a dangerous exothermic reaction will be prevented.
- 10.6 Hazardous decomposition products  
Not developed under normal uses. Dangerous products are formed at high temperature and in fire, such as carbon monoxide and carbon dioxide, heavy smoke and nitrogen oxides.

### SECTION 11: Toxicological information

- 11.1 Information on toxicological effects  
No toxicological data is available for the mixture.

#### Acute toxicity

Harmful in contact with skin. Harmful if inhaled.

#### ethylbenzene

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral	LD 50	3500 mg/kg		Rat	
Dermal	LD 50	17800 mg/kg		Rat	
Inhalation (vapor)	LC 50	17400 mg/kg	4 hour	Rat	

#### xylene

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral	LD 50	4300 mg/kg		Rat	
Dermal	LD 50	3200 mg/kg		Rabbit	

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Skin corrosion/irritation  
Causes severe skin burns and eye damage.

Serious eye damage/irritation  
Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation  
May cause an allergic skin reaction.

Germ cell mutagenicity  
Based on available data, the classification criteria are not met.

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

Reproductive toxicity  
Based on available data, the classification criteria are not met.

Toxicity for specific target organ - single exposure  
Based on available data, the classification criteria are not met.

Toxicity for specific target organ - repeated exposure  
Based on available data, the classification criteria are not met.

Aspiration hazard  
Based on available data, the classification criteria are not met.

**SECTION 12: Ecological information****12.1 Toxicity**

Acute toxicity  
Toxic to aquatic life with long lasting effects.

**2,4,6-tris[[3-(dimethylamino)propylamino]methyl]fenol**

Parameter	Value	Time of exposure	Species	Environment	Source
LC 50	718 mg/l	96 hour	Daphnia (Daphnia magna)		
LC 50	175 mg/l	96 hour	Fishes (Oncorhynchus mykiss)		

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Parameter	Value	Time of exposure	Species	Environment	Source
LC 50	8500 mg/kg	48 hour	Other aquatic organisms		xylene
LC 50	>100.0 mg/kg	96 hour	Fishes (Oncorhynchus mykiss)		xylene
EC 50	>100.0 mg/kg	48 hour	Invertebrates		xylene
IC 50	>100.0 mg/kg	72 hour	Algae (Selenastrum capricornutum)		xylene

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xylene

Parameter	Value	Time of exposure	Species	Environment	Source
LC 50	26.7 mg/l		Fishes (Pimephales promelas)		

- 12.2 Persistence and degradability  
not available
- 12.3 Bioaccumulative potential  
not available
- 12.4 Mobility in soil  
not available
- 12.5 Results of PBT and vPvB assessment  
The mixture is not classified as PBT or vPvB.
- 12.6 Other adverse effects  
not available

**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to an authorised person for waste removal (specialized company) authorised for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste. Empty containers may be used at waste incinerators to produce energy or deposited in a dump with appropriate classification. Perfectly cleaned containers can be submitted for recycling. Hazard of environmental contamination; remove waste in accordance with local and/or national regulations.

**Legislation of waste**

Council Directive 75/442/EEC on waste, at last amended. Council Directive 91/689/EEC on hazardous waste, as last amended. Decision 94/3/EC establishing a list of wastes, as last amended.

**Code of type of waste**

08 01 11 waste paint and varnish containing organic solvents or other dangerous substances

**Code of type of waste packaging**

15 01 10 packaging containing residues of or contaminated by dangerous substances

**SECTION 14: Transport information**

- 14.1 UN number  
UN 1263
- 14.2 UN proper shipping name  
PAINT
- 14.3 Transport hazard class(es)  
3 Flammable liquids
- 14.4 Packing group  
III - substances presenting low danger
- 14.5 Environmental hazards  
not available
- 14.6 Special precautions for user  
Reference in Sections 4 to 8.
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code  
not available

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## Additional information

The hazard identification number	30	(Kemler Code)
UN number	1263	
Classification code	F1	
Safety signs	3	



## Air transport - ICAO/IATA

Packaging instructions passenger	355
Cargo packaging instructions	366

## Marine transport - IMDG

EMS (emergency plan)	F-E, S-E
MFAG	310
Marine pollution	No

## SECTION 15: Regulatory information

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

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006, as amended. Directives 67/548/EEC, as amended, and 1999/45/EC, as amended.

15.2 Chemical safety assessment  
not available

## SECTION 16: Other information

A list of standard risk phrases used in the safety data sheet

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
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.
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.

Guidelines for safe handling used in the safety data sheet

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P243	Take precautionary measures against static discharge.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

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P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P405 Store locked up.

P501 Dispose of contents/container to local regulations.

**Other important information about human health protection**

The product must not be - unless specifically approved by the manufacturer/importer - used for purposes other than as per Section 1. The user is responsible for adherence to all related health protection regulations.

**Key to abbreviations and acronyms used in the safety data sheet**

ADR European agreement concerning the international carriage of dangerous goods by road

BCF Bioconcentration Factor

CAS Chemical Abstracts Service

CLP Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures

DNEL Derived no-effect level

EC50 Concentration of a substance when it is affected 50% of the population

EINECS European Inventory of Existing Commercial Chemical Substances

Ems Emergency plan

ES Identification code for each substance listed in EINECS

EU European Union

IATA International Air Transport Association

IBC International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals

IC50 Concentration causing 50 % blockade

ICAO International Civil Aviation Organization

IMDG International Maritime Dangerous Goods Transport

INCI International Nomenclature of Cosmetic Ingredients

ISO International Organization for Standardization

IUPAC International Union of Pure and Applied Chemistry

LC50 Lethal concentration of a substance in which it can be expected death of 50% of the population

LD50 Lethal dose of a substance in which it can be expected death of 50% of the population

LOAEC Lowest observed adverse effect concentration

LOAEL Lowest observed adverse effect level

Log Kow Octanol-water partition coefficient

MARPOL International Convention for the Prevention of Pollution From Ships

MFAG First Aid Manual

NOAEC No observed adverse effect concentration

NOAEL No observed adverse effect level

NOEC No observed effect concentration

NOEL No observed effect level

OEL Occupational Exposure Limits

PBT Persistent, Bioaccumulative and Toxic

PEL Permissible Exposure Limit

PNEC Predicted no-effect concentration

ppm Parts per million

REACH Registration, Evaluation, Authorisation and Restriction of chemicals (EP and Council Regulation (EC) No 1907/2006)

RID Agreement on the transport of dangerous goods by rail

UN Four-figure identification number of the substance or article taken from the UN Model Regulations

UVCB Substances of unknown or variable composition, complex reaction products or biological materials

VOC Volatile organic compounds

vPvB Very Persistent and very Bioaccumulative

w/w Weight by weight



# SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

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Acute Tox.	Acute toxicity
Aquatic Acute	Hazardous to the aquatic environment
Aquatic Chronic	Hazardous to the aquatic environment
Flam. Liq.	Flammable liquid
Skin Corr.	Skin corrosion
Skin Irrit.	Skin irritation
Skin Sens.	Skin sensitization

### Training guidelines

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the mixture.

Recommended restrictions of use  
not available

Information about data sources used to compile the Safety Data Sheet

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended, REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended, COMMISSION REGULATION (EU) No 453/2010, COUNCIL DIRECTIVE 67/548/EEC as amended and 1999/45/EC, COMMISSION REGULATION (EU) No 286/2011 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures.

The changes (which information has been added, deleted or modified)

Revised according to changes in raw material safety data sheets.

### Statement

The Safety Data Sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.