Safety Data Sheet

according to Regulation (EC) No 1907/2006

Jokisch Migma Evio DGG

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

1.1. Product identifier

Jokisch Migma Evio DGG

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

1.3. Details of the supplier of the safety data sheet

Company name:	Jokisch GmbH Germany	
Street:	Industriestraße 5	
Place:	D-33813 Oerlinghausen	
Telephone:	+49(0)5202/9734-0	Telefax: +49(0)5202/9734-49
E-mail:	info@jokisch-fluids.de	
Contact person:	Regulatory affairs	
E-mail:	MSDS@jokisch-fluids.de	
Internet:	www.jokisch-fluids.de	

1.4. Emergency telephone number:

Emergency telephone number (24h) +1 872 5888271 (JRR) (en)

Further Information

Reserved for industrial and professional use.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard statements

H412	Harmful to aquatic life with long lasting effects.
EUH208	Contains 2-aminoethanol; ethanolamine. May produce an allergic reaction.

Precautionary statements

P273	Avoid release to the environment.
P501	Dispose of contents/container to an appropriate recycling or disposal facility.

2.3. Other hazards

Avoid release to the environment.

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
105-59-9	2,2'-(methylimino)diethanol; N-methyldiethanolamine			2.5 - < 5 %
	203-312-7		01-2119488970-24	
	Eye Irrit. 2; H319			
95-14-7	Benzotriazole			1 - < 2.5 %
	202-394-1		01-2119979079-20	
	Acute Tox. 4, Eye Irrit. 2A, Aquatic Chronic 2; H302 H319 H411			
141-43-5	2-aminoethanol; ethanolamine			0.1 - < 1 %
	205-483-3	603-030-00-8		
	Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B, Eye Dam. 1, Skin Sens. 1, STOT SE 3, Aquatic Chronic 3; H332 H312 H302 H314 H318 H317 H335 H412			
31075-24-8	1,2-Ethanediamin, N´,N´,N´,N´,-tetramethyl-,polymer mit 1,1´-oxybis(2-chloroethan)			< 0.1 %
	608-578-1			
	Acute Tox. 4, Acute Tox. 4, Aquatic Acute 1, Aquatic Chronic 1; H332 H302 H400 H410			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
105-59-9	203-312-7	2,2'-(methylimino)diethanol; N-methyldiethanolamine	2.5 - < 5 %
	dermal: LD50 = > 2000 mg/kg; oral: LD50 = 4680 mg/kg		
95-14-7	202-394-1	Benzotriazole	1 - < 2.5 %
	dermal: LD50 = >2001 mg/kg; oral: LD50 = 500 mg/kg		
141-43-5	205-483-3	2-aminoethanol; ethanolamine	0.1 - < 1 %
	inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = 1025 mg/kg; oral: LD50 = 1515 mg/kg STOT SE 3; H335: >= 5 - 100		
31075-24-8	608-578-1	1,2-Ethanediamin, N´,N´,N´,N´,-tetramethyl-,polymer mit 1,1´-oxybis(2-chloroethan)	< 0.1 %
	inhalation: ATE = 11 mg/l (vapours); inhalation: LC50 = 2,9 mg/l (dusts or mists); dermal: LD50 = > 2000 mg/kg; oral: LD50 = 1951 mg/kg Aquatic Acute 1; H400: M=10 Aquatic Chronic 1; H410: M=10		

Further Information

Full text of H- and EUH-statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Seek medical attention if problems persist. No administration in cases of unconsiousness or cramps.

After inhalation

Move victim to fresh air. Put victim at rest and keep warm. Call a doctor if you feel unwell.

After contact with skin

Remove contaminated, saturated clothing immediately.After contact with skin, wash immediately with plenty of water and soap. In case of troubles or persistent symptoms, consult an ophthalmologist.

After contact with eyes

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Consult an ophthalmologist.

After ingestion

Do NOT induce vomiting.

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

No information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water fog. Foam. Dry extinguishing powder. Carbon dioxide (CO2).

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated:
Nitrogen oxides (NOx).
Carbon monoxide
Carbon dioxide (CO2).

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Full protective suit.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

See protective measures under point 7 and 8.
High slip hazard because of leaking or spilled product. Do not breathe mist/vapours/spray. Provide adequate ventilation.

For non-emergency personnel

Take off immediately all contaminated clothing and wash it before reuse.

For emergency responders

The danger areas must be delimited and identified using relevant warning and safety signs. Move victim out of danger zone.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For containment

Prevent spread over a wide area (e.g. by containment or oil barriers).

Other information

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).
Clean contaminated articles and floor according to the environmental legislation. Clean with detergents. Avoid solvent cleaners.

6.4. Reference to other sections

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Use only in well-ventilated areas.
When using do not eat, drink or smoke.

Further information on handling

When using do not eat, drink or smoke.

High slip hazard because of leaking or spilled product.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep the packing dry and well sealed to prevent contamination and absorbtion of humidity.
Recommended storage temperature: 5-40 °C
Maximum period of storage (time): 1 year

Hints on joint storage

Keep away from food, drink and animal feedingstuffs.

7.3. Specific end use(s)

Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

CAS No	Substance	ppm	mg/m³	fib/cm³	Category	Origin
141-43-5	2-Aminoethanol	1	2.5		TWA (8 h)	
		3	7.6		STEL (15 min)	
111-42-2	Diethanolamine (Inhalable Fraction and Vapour)	0.2	1		TWA (8 h)	
102-71-6	Triethanolamine	-	5		TWA (8 h)	

DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
102-71-6	Triethanolamin 99 LFG 85			
Worker DNEL, long-term		inhalation	local	1 mg/m³
Worker DNEL, long-term		dermal	systemic	7,5 mg/kg bw/day
Worker DNEL, long-term		dermal	local	0,14 mg/cm²
Consumer DNEL, long-term		inhalation	local	0,4 mg/m³
Consumer DNEL, long-term		dermal	systemic	2,66 mg/kg bw/day
Consumer DNEL, long-term		dermal	local	0,07 mg/m³
Consumer DNEL, long-term		oral	systemic	3,3 mg/kg bw/day
102-71-6	Triethanolamin			
Worker DNEL, long-term		inhalation	local	1 mg/m³
Worker DNEL, long-term		dermal	systemic	7,5 mg/kg bw/day
Consumer DNEL, long-term		inhalation	local	0,4 mg/m³
Consumer DNEL, long-term		dermal	local	2,66 mg/person/day
Consumer DNEL, long-term		oral	systemic	3,3 mg/kg bw/day
105-59-9	2,2'-(methylimino)diethanol; N-methyldiethanolamine			
Worker DNEL, long-term		inhalation	systemic	7,9 mg/m³
Worker DNEL, long-term		dermal	systemic	5,6 mg/kg bw/day
Worker DNEL, long-term		dermal	local	0,05 mg/cm²
Consumer DNEL, long-term		inhalation	systemic	0,4 mg/m³
Consumer DNEL, long-term		dermal	systemic	0,67 mg/kg bw/day
Consumer DNEL, long-term		dermal	local	0,03 mg/cm²
Consumer DNEL, long-term		oral	systemic	0,13 mg/kg bw/day
95-14-7	Benzotriazole			
Worker DNEL, long-term		inhalation	systemic	4,2 mg/m³
Worker DNEL, long-term		dermal	systemic	0,24 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	2,1 mg/m³
Consumer DNEL, long-term		dermal	systemic	0,12 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	0,12 mg/kg bw/day
111-42-2	2,2'-iminodiethanol; diethanolamine			
Worker DNEL, long-term		inhalation	systemic	0,75 mg/m³
Consumer DNEL, long-term		inhalation	systemic	0,125 mg/m³
Worker DNEL, long-term		inhalation	local	0,5 mg/m³
Consumer DNEL, long-term		inhalation	local	0,125 mg/m³
Worker DNEL, long-term		dermal	systemic	0,130 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	0,07 mg/kg bw/day

Consumer DNEL, long-term	oral	systemic	0,06 mg/kg bw/day

PNEC values

CAS No	Substance	
Environmental compartment		Value
102-71-6	Triethanolamin 99 LFG 85	
Freshwater		0,32 mg/l
Marine water		0,032 mg/l
Freshwater sediment		1,7 mg/kg
Marine sediment		0,17 mg/kg
Micro-organisms in sewage treatment plants (STP)		10 mg/l
Soil		0,151 mg/kg
102-71-6	Triethanolamin	
Freshwater		0,32 mg/l
Marine water		0,32 mg/l
Freshwater sediment		1,7 mg/kg
Marine sediment		0,17 mg/kg
Micro-organisms in sewage treatment plants (STP)		10 mg/l
Soil		0,151 mg/kg
105-59-9	2,2'-(methylimino)diethanol; N-methyldiethanolamine	
Freshwater		0,1 mg/l
Marine water		0,004 mg/l
Freshwater sediment		0,78 mg/kg
Marine sediment		0,035 mg/kg
Micro-organisms in sewage treatment plants (STP)		10 mg/l
Soil		0,097 mg/kg
95-14-7	Benzotriazole	
Freshwater		0,019 mg/l
Marine water		0,019 mg/l
Freshwater sediment		0,22 mg/kg
Marine sediment		0,22 mg/kg
Micro-organisms in sewage treatment plants (STP)		0,1 mg/l
Soil		0,03 mg/kg
111-42-2	2,2'-iminodiethanol; diethanolamine	
Freshwater		0,021 mg/l
Marine water		0,002 mg/l
Freshwater sediment		0,092 mg/kg
Marine sediment		0,0092 mg/kg
Soil		1,63 mg/kg

8.2. Exposure controls




Individual protection measures, such as personal protective equipment

Eye/face protection

EN 166

Hand protection

Protect skin by using skin protective cream.
Wash hands before breaks and after work.

Skin protection

Chemical resistant safety shoes.
Take off immediately all contaminated clothing.
Thorough skin-cleansing after handling the product.
Set out skin protection guidelines.

Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Thermal hazards

Remove all sources of ignition.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Flüssig
Colour: light yellow

		Test method
Boiling point or initial boiling point and boiling range:	not determined	
Lower explosion limits:	not determined	
Upper explosion limits:	not determined	
Flash point:	not applicable	
Auto-ignition temperature:	not determined	
pH-Value (at 20 °C):	9,4	DIN 51369
Viscosity / kinematic: (at 20 °C)	6-8 mm²/s	ASTM D 7042
Vapour pressure:	not determined	
Vapour pressure:	not determined	
Density (at 20 °C):	1,08 g/cm³	EN ISO 12185

9.2. Other information

Other safety characteristics

Pour point:	not determined
Viscosity / dynamic:	not determined

Further Information

Refraktometer 1,7

SECTION 10: Stability and reactivity

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.4. Conditions to avoid

Protect against: heat.

10.5. Incompatible materials

The following must be prevented: Oxidizing agents, strong. acid.

10.6. Hazardous decomposition products

Hazardous decomposition products: none

SECTION 11: Toxicological information

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

Acute toxicity

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

ATEmix calculated

ATE (oral) > 5000 mg/kg; ATE (dermal) > 2000 mg/kg

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
105-59-9	2,2'-(methylimino)diethanol; N-methyldiethanolamine				
	oral	LD50 4680 mg/kg	Rat		OECD 401
	dermal	LD50 > 2000 mg/kg	Rabit		
95-14-7	Benzotriazole				
	oral	LD50 500 mg/kg	Rat	ECHA	
	dermal	LD50 >2001 mg/kg	Rabbit		
141-43-5	2-aminoethanol; ethanolamine				
	oral	LD50 1515 mg/kg	Rat		
	dermal	LD50 1025 mg/kg	Rabbit	IUCLID	
	inhalation vapour	ATE 11 mg/l			
	inhalation dust/mist	ATE 1,5 mg/l			
31075-24-8	1,2-Ethanediamin, N´,N´,N´,N´,-tetramethyl-,polymer mit 1,1´-oxybis(2-chloroethan)				
	oral	LD50 1951 mg/kg	Rat		
	dermal	LD50 > 2000 mg/kg	Rabbit		
	inhalation vapour	ATE 11 mg/l			
	inhalation (4 h) dust/mist	LC50 2,9 mg/l	Rat		

Irritation and corrosivity

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

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

Sensitising effects

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

Contains 2-aminoethanol; ethanolamine. May produce an allergic reaction.

Carcinogenic/mutagenic/toxic effects for reproduction

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.

STOT-single exposure

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

STOT-repeated exposure

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

Aspiration hazard

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

Additional information on tests

No risks worthy of mention. Practical experience.
The statement is derived from the properties of the single components.
The classification was undertaken in accordance with the calculation method governed by the Preparations Directive (1999/45/EC).

11.2. Information on other hazards

Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic life with long lasting effects.

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] | [d]	Species	Source	Method
105-59-9	2,2'-(methylimino)diethanol; N-methyldiethanolamine						
	Acute fish toxicity	LC50 mg/l	1466	96 h	Leuciscus idus		DIN38412
	Acute algae toxicity	ErC50 mg/l	> 100	72 h	Pseudokirchneriella sub.		DIN 38412
	Acute crustacea toxicity	EC50	233 mg/l	48 h	Daphnia magna		EU C.2
	Algae toxicity	NOEC mg/l	6,25	3 d	Desmodesmus subspicatus		DIN 38412
95-14-7	Benzotriazole						
	Acute fish toxicity	LC50	180 mg/l	96 h	Brachydanio rerio	ECHA	OECD 203
	Acute algae toxicity	ErC50	75 mg/l	72 h	Pseudokirchneriella subcapitata)	ECHA	OECD 201 / EU Method C.3
	Acute crustacea toxicity	EC50 mg/l	15,8	48 h	Daphnia magna (Big water flea)	ECHA	
141-43-5	2-aminoethanol; ethanolamine						
	Acute fish toxicity	LC50	150 mg/l	96 h	Oncorhynchus mykiss	IUCLID	
	Acute algae toxicity	ErC50	22 mg/l	72 h	Desmodesmus subspicatus		
	Acute crustacea toxicity	EC50	65 mg/l	48 h	Daphnia magna		
31075-24-8	1,2-Ethanediamin, N´,N´,N´,N´,-tetramethyl-,polymer mit 1,1´-oxybis(2-chloroethan)						
	Acute fish toxicity	LC50 mg/l	0,047	96 h	Oncorhynchus mykiss (Rainbow trout)		
	Acute crustacea toxicity	EC50 mg/l	0,37	48 h	Daphnia magna		
	Fish toxicity	NOEC mg/l	0,037	4 d	Oncorhynchus mykiss (Rainbow trout)		
	Algae toxicity	NOEC mg/l	0,0019	5 d	Selenastrum capricornutum		
	Crustacea toxicity	NOEC mg/l	0,08	2 d	Daphnia magna		

12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
105-59-9	2,2'-(methylimino)diethanol; N-methyldiethanolamine			
	OECD guideline 301 A	96%	18	
	readily biodegradable			
	OECD 302B	95%	14	
	inherently biodegradable			
	OECD 306	15%	63	
	not readily biodegradable			

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
105-59-9	2,2'-(methylimino)diethanol; N-methyldiethanolamine	-1,16
95-14-7	Benzotriazole	1,34
141-43-5	2-aminoethanol; ethanolamine	-1,91 (25°C)

BCF

CAS No	Chemical name	BCF	Species	Source
105-59-9	2,2'-(methylimino)diethanol; N-methyldiethanolamine	0,7-3,2		

12.4. Mobility in soil

in delivery condition: liquid

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.
none according to Regulation (EC) No. 1907/2006 (REACH)

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Completely emptied packings can be re-cycled. Dispose of waste according to applicable legislation.
Dispose of contents/container to an appropriate recycling or disposal facility. Consult the local waste disposal expert about waste disposal.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

List of Wastes Code - residues/unused products

120107 WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS; wastes from shaping and physical and mechanical surface treatment of metals and plastics; mineral-based machining oils free of halogens (except emulsions and solutions); hazardous waste

List of Wastes Code - used product

120109 WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS; wastes from shaping and physical and mechanical surface treatment of metals and plastics; machining emulsions and solutions free of halogens; hazardous waste

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number:	No dangerous good in sense of these transport regulations.
14.2. UN proper shipping name:	No dangerous good in sense of these transport regulations.
14.3. Transport hazard class(es):	No dangerous good in sense of these transport regulations.
14.4. Packing group:	No dangerous good in sense of these transport regulations.

Inland waterways transport (ADN)

14.1. UN number or ID number:	No dangerous good in sense of these transport regulations.
14.2. UN proper shipping name:	No dangerous good in sense of these transport regulations.
14.3. Transport hazard class(es):	No dangerous good in sense of these transport regulations.
14.4. Packing group:	No dangerous good in sense of these transport regulations.

Marine transport (IMDG)

14.1. UN number or ID number:	No dangerous good in sense of these transport regulations.
14.2. UN proper shipping name:	No dangerous good in sense of these transport regulations.
14.3. Transport hazard class(es):	No dangerous good in sense of these transport regulations.
14.4. Packing group:	-

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	No dangerous good in sense of these transport regulations.
14.2. UN proper shipping name:	No dangerous good in sense of these transport regulations.
14.3. Transport hazard class(es):	No dangerous good in sense of these transport regulations.
14.4. Packing group:	-

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Personal protection equipment: see section 8

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

Information according to Directive 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D): 2 - obviously hazardous to water

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:
2-aminoethanol; ethanolamine

1,2-Ethanediamin, N´,N´,N´,N´,-tetramethyl-,polymer mit 1,1´-oxybis(2-chloroethan)

SECTION 16: Other information

Changes

AICS (Australien), DSL (Kanada), IECSC (China), REACH (Europäische Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (Neuseeland), PICCS (Philippinen), TSCA (USA)

Abbreviations and acronyms

Acute Tox. 4: Acute toxicity, hazard category 4
Skin Corr. 1B: Skin corrosion, sub-category 1B
Eye Dam. 1: Serious eye damage, hazard category 1
Eye Irrit. 2: Eye irritation, hazard category 2
Eye Irrit. 2A: Eye irritation, hazard category 2A
Skin Sens. 1: Skin sensitisation, hazard category 1
STOT SE 3: Specific target organ toxicity - single exposure, hazard category 3
Aquatic Acute 1: Hazardous to the aquatic environment, hazard category: Acute 1
Aquatic Chronic 1: Hazardous to the aquatic environment, long-term hazard category: Chronic 1
Aquatic Chronic 2: Hazardous to the aquatic environment, long-term hazard category: Chronic 2
Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard category: Chronic 3
CLP: Classification, labelling and Packaging
REACH: Registration, Evaluation and Authorization of Chemicals
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
UN: United Nations
CAS: Chemical Abstracts Service
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration
ATE: Acute toxicity estimate
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%
LL50: Lethal loading, 50%
EL50: Effect loading, 50%
EC50: Effective Concentration 50%
ErC50: Effective Concentration 50%, growth rate
NOEC: No Observed Effect Concentration
BCF: Bio-concentration factor
PBT: persistent, bioaccumulative, toxic
vPvB: very persistent, very bioaccumulative
ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Regulations concerning the international carriage of dangerous goods by rail
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)
IMDG: International Maritime Code for Dangerous Goods
EmS: Emergency Schedules
MFAG: Medical First Aid Guide
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
IBC: Intermediate Bulk Container
VOC: Volatile Organic Compounds
SVHC: Substance of Very High Concern
Repr. - Reproduktionstoxizität
Asp. Tox. - Aspirationstoxizität
Acute Tox. - Akute Toxizität
Aquatic Acute - Akute aquatische Toxizität
Aquatic Chronic - Chronische aquatische Toxizität
Eye Dam. - Augenschaden/-reizung
Eye Irrit. - Augenreizung
Skin Corr. - Ätzwirkung auf die Haut
Skin Irrit. - Hautreizung
Skin Sens. - Hautallergen

Resp. Sens. - Inhalationsallergen
STOT SE - Spezifische Zielorgan-Toxizität - einmalige Exposition
STOT RE - Spezifische Zielorgan-Toxizität - wiederholte Exposition
VOC - Flüchtige organische Verbindungen

Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Aquatic Chronic 3; H412	Calculation method

Relevant H and EUH statements (number and full text)

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
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.
EUH208	Contains 2-aminoethanol; ethanolamine. May produce an allergic reaction.

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)