



**Multiboard Spezial LF**

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**Hazardous components**

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
	polyether modified trisiloxane	2.5 - < 5 %
134180-76-0	Xn - Harmful, Xi - Irritant, N - Dangerous for the environment R20/21-36-51-53	
	Acute Tox. 4, Acute Tox. 4, Eye Irrit. 2, Aquatic Chronic 2; H312 H332 H319 H411	
203-961-6	2-(2-butoxyethoxy)ethanol	2.5 - < 5 %
112-34-5	Xi - Irritant R36	
603-096-00-8	Eye Irrit. 2; H319	
01-2119475104-44		

Full text of R-, H- and EUH-phrases: see section 16.

**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

When in doubt or if symptoms are observed, get medical advice. If unconscious place in recovery position and seek medical advice. Remove contaminated, saturated clothing immediately.

**After inhalation**

Remove casualty to fresh air and keep warm and at rest.

**After contact with skin**

After contact with skin, wash immediately with plenty of water and soap.

**After contact with eyes**

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

**After ingestion**

If swallowed, rinse mouth with water (only if the person is conscious). Let water be drunken in little sips (dilution effect). Call a physician immediately. Do NOT induce vomiting.

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

When in doubt or if symptoms are observed, get medical advice.

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

No information available.

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

alcohol resistant foam, Extinguishing powder, Carbon dioxide (CO<sub>2</sub>).

**Unsuitable extinguishing media**

Full water jet.

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

Hazardous decomposition products: Carbon monoxide. Carbon dioxide (CO<sub>2</sub>). Do not inhale explosion and combustion gases.

**5.3. Advice for firefighters**

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

**Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Do not allow to enter into soil/subsoil.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

See protective measures under point 7 and 8.

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#### 6.2. Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Clean contaminated objects and areas thoroughly observing environmental regulations.

#### 6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

#### 6.4. Reference to other sections

See protective measures under point 7 and 8.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

##### **Advice on safe handling**

Use personal protection equipment. Do not eat, drink or smoke when using this product. Provide fresh air. Handle and open container with care. Conditions to avoid: Generation/formation of aerosols.

##### **Advice on protection against fire and explosion**

No special measures are necessary.

#### 7.2. Conditions for safe storage, including any incompatibilities

##### **Requirements for storage rooms and vessels**

Protect against: Frost. Keep away from heat. Protect against direct sunlight. Keep container tightly closed in a cool, well-ventilated place.

#### 7.3. Specific end use(s)

Observe technical data sheet.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### **Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
112-34-5	2-(2-Butoxyethoxy)ethanol	10	67.5		TWA (8 h)	WEL
		15	101.2		STEL (15 min)	WEL

##### **DNEL/DMEL values**

CAS No	Substance	Exposure route	Effect	Value
112-34-5	2-(2-butoxyethoxy)ethanol			
Worker DNEL, long-term		dermal	systemic	20 mg/kg bw/day
Consumer DNEL, acute		inhalation	local	7,5 mg/m <sup>3</sup>
Consumer DNEL, long-term		dermal	systemic	10 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	5 mg/m <sup>3</sup>
Consumer DNEL, long-term		oral	systemic	1,3 mg/kg bw/day
Consumer DNEL, long-term		inhalation	local	5 mg/m <sup>3</sup>

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**PNEC values**

CAS No	Substance	Value
Environmental compartment		
112-34-5	2-(2-butoxyethoxy)ethanol	
Freshwater		1 mg/l
Marine water		0,1 mg/l
Freshwater sediment		4 mg/l
Marine sediment		0,4 mg/l
Soil		0,4 mg/l

**8.2. Exposure controls**
**Appropriate engineering controls**

See chapter 7. No additional measures necessary.

**Protective and hygiene measures**

When using do not eat, drink, smoke, sniff.

**Eye/face protection**

Eye glasses with side protection.

**Hand protection**

Wear suitable gloves. Recommended glove articles: DIN EN 374. Suitable material: NBR (Nitrile rubber). Breakthrough time (maximum wearing time): > 480 min (Thickness of the glove material: 0.4 mm). Breakthrough times and swelling properties of the material must be taken into consideration. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

**Skin protection**

Protective clothing.

**Respiratory protection**

With correct and proper use, and under normal conditions, breathing protection is not required. When splashes or fine mist form, a permitted breathing apparatus suitable for these purposes must be used. Suitable respiratory protection apparatus: Filtering Half-face mask (DIN EN 149), e.g. FFA P / FFP3.

**Environmental exposure controls**

Do not allow to enter into surface water or drains.

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

Physical state:	liquid
Colour:	yellowish
Odour:	characteristic

	<b>Test method</b>
pH-Value (at 20 °C):	7,3 DIN 51369 (100 g/L)

**Changes in the physical state**

Initial boiling point and boiling range:	> 100 °C
Pour point:	not determined
Flash point:	not applicable
Lower explosion limits:	not applicable
Upper explosion limits:	not applicable
Vapour pressure: (at 20 °C)	ca. 23 (H <sub>2</sub> O) hPa
Density (at 15 °C):	1,03 g/cm <sup>3</sup> DIN 51757
Water solubility:	very soluble

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Viscosity / dynamic: not determined  
Viscosity / kinematic: not determined  
Flow time: not determined

**9.2. Other information**

No information available.

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

No information available.

**10.2. Chemical stability**

No information available.

**10.3. Possibility of hazardous reactions**

No hazardous reaction when handled and stored according to provisions.

**10.4. Conditions to avoid**

Heat.

**10.5. Incompatible materials**

No information available.

**10.6. Hazardous decomposition products**

No information available.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Acute toxicity**

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

CAS No	Chemical name	Exposure routes	Method	Dose	Species	Source
134180-76-0	polyether modified trisiloxane	dermal	ATE	1100 mg/kg		
		inhalative (0 h) vapour	ATE	11 mg/l		
		inhalative (0 h) aerosol	ATE	1,5 mg/l		
112-34-5	2-(2-butoxyethoxy)ethanol	oral	LD50	5660 mg/kg	Rat	
		dermal	LD50	4120 mg/kg	Rabbit	

**Irritation and corrosivity**

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

**Sensitising effects**

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

**STOT-single exposure**

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

**Severe effects after repeated or prolonged exposure**

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

**Carcinogenic/mutagenic/toxic effects for reproduction**

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

**Aspiration hazard**

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

**Practical experience****Other observations**

Keeping to the general worker's protection rules and the industrial hygienics, there is no risk in handling this product through the personnel.

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

No data available

**12.2. Persistence and degradability**

No data available

**12.3. Bioaccumulative potential****Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
112-34-5	2-(2-butoxyethoxy)ethanol	0,56 (25°C)

**12.4. Mobility in soil**

No data available

**12.5. Results of PBT and vPvB assessment**

No data available

**12.6. Other adverse effects**

No data available

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Advice on disposal**

Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Waste disposal according to EC directives 75/442/EEC and 91/689/EEC in the corresponding versions, covering waste and dangerous waste.

**Waste disposal number of waste from residues/unused products**

070608 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics; other still bottoms and reaction residues  
Classified as hazardous waste.

**Contaminated packaging**

Non-contaminated packages may be recycled. Consult the appropriate local waste disposal expert about waste disposal.

**SECTION 14: Transport information****Land transport (ADR/RID)****14.1. UN number:**

No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:**

No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):**

No dangerous good in sense of this transport regulation.

**14.4. Packing group:**

No dangerous good in sense of this transport regulation.

**Marine transport (IMDG)****14.1. UN number:**

No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:**

No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):**

No dangerous good in sense of this transport regulation.

**14.4. Packing group:**

No dangerous good in sense of this transport regulation.

Marine pollutant:

NO

**Air transport (ICAO)****14.1. UN number:**

No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:**

No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):**

No dangerous good in sense of this transport regulation.

**14.4. Packing group:**

No dangerous good in sense of this transport regulation.

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

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**14.6. Special precautions for user**

No data available

**14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

No data available

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

2010/75/EU (VOC): 0 %

2004/42/EC (VOC): 0 %

**National regulatory information**

Water contaminating class (D): 2 - water contaminating

**15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information****Changes**This data sheet contains changes from the previous version in section(s):  
2,3,4,5,6,7,8,9,10,11,12,13,14,15.**Relevant R-phrases (Number and full text)**

- |       |   |
|-------|---|
| 20/21 | Harmful by inhalation and in contact with skin.                 |
| 36    | Irritating to eyes.   |
| 51    | Toxic to aquatic organisms.                                     |
| 53    | May cause long-term adverse effects in the aquatic environment. |

**Relevant H- and EUH-phrases (Number and full text)**

- |      |  |
|------|--|
| H312 | Harmful in contact with skin.                      |
| H319 | Causes serious eye irritation.                     |
| H332 | Harmful if inhaled.                                |
| H411 | Toxic to aquatic life with long lasting effects.   |
| H412 | Harmful to aquatic life with long lasting effects. |

**Further Information**

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.

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