



## 2.2 Label elements

### Symbol(s) of Product



### Signal Word

Danger

### Named Chemicals on Label

2-butoxyethanol, 2-aminoethanol

#### HAZARD STATEMENTS

Acute Toxicity, Inhalation, category 4	H 332	Harmful if inhaled.
Skin Corrosion, category 1	H 314-1	Causes severe skin burns and eye damage.

#### PRECAUTION PHRASES

P 260	Do not breathe the dust/fume/gas/mist/vapours/spray.
P 264	Wash hands thoroughly after handling.
P 280	Wear protective gloves/protective clothing/eye protection/face protection.
P 303+361+353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/Shower.
P 304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

## 2.3 Other hazards

Not applicable

### Results of PBT and vPvB assessment

No information

## 3. Composition/Information On Ingredients

### 3.2 Mixtures

#### Hazardous Ingredients

<u>CAS-No.</u>	<u>EINEC No.</u>	<u>Name According to EEC</u>	<u>%</u>
111-76-2	203-905-0	2-butoxyethanol	25-50
141-43-5	205-483-3	2-aminoethanol	10-25
1310-73-2	215-185-5	sodium hydroxide	1.0-2.5

<u>CAS-No.</u>	<u>REACH Reg No.</u>	<u>CLP Symbols</u>	<u>CLP Hazard Statements</u>	<u>M-Factors</u>
111-76-2		GHS07	H302-312-315-319-332	
141-43-5		GHS05-GHS07	H302-312-314-332	
1310-73-2		GHS05	H314	

**Additional Information:** The text for CLP Hazard Statements shown above (if any) is given in Section 16.

## 4. First-aid Measures

### 4.1 Description of First Aid Measures

**GENERAL NOTES:** When symptoms persist or in all cases of doubt seek medical advice.

**AFTER INHALATION:** Move to fresh air. Call a physician or poison control centre immediately.

**AFTER SKIN CONTACT:** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

**AFTER EYE CONTACT:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Remove

contact lenses.

**AFTER INGESTION:** Gently wipe or rinse the inside of the mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

#### **Self protection of the first aider:**

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

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

Causes burns. Harmful in contact with skin and if swallowed.

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

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

### **5. Fire-fighting Measures**

#### **5.1 Extinguishing Media:**

Carbon Dioxide, Dry Chemical, Foam, Water Fog

**FOR SAFETY REASONS NOT TO BE USED:** Alcohol, Alcohol based solutions, any other media not listed above.

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

No Information

#### **5.3 Advice for firefighters**

In the event of fire, wear self-contained breathing apparatus. Hazardous decomposition products formed under fire conditions.

### **6. Accidental Release Measures**

#### **6.1 Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation. Use personal protective equipment

#### **6.2 Environmental precautions**

Should not be released into the environment

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

Pick up and transfer to properly labelled containers. Prevent further leakage or spillage if safe to do so.

#### **6.4 Reference to other sections**

**FURTHER INSTRUCTIONS:** Please refer to EU disposal requirements or country specific disposal requirements for this material. See Section 13 for further information.

### **7. Handling and Storage**

#### **7.1 Precautions for safe handling**

Wear personal protective equipment. Avoid contact with skin and clothing. Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke.

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

**CONDITIONS TO AVOID:** Direct sources of heat

**STORAGE CONDITIONS:** Keep container tightly closed in a dry and well-ventilated place.

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

No specific advice for end use available.

## 8. Exposure Controls/Personal Protection

### 8.1 Control parameters

#### Ingredients with Occupational Exposure Limits (IR)

Name	%	LTEL ppm	STEL ppm	STEL mg/m <sup>3</sup>	LTEL mg/m <sup>3</sup>	OEL Note
2-butoxyethanol	25-50	20	50	246	98	Can be absorbed through the skin.
2-aminoethanol	10-25	1	3	7.6	2.5	
sodium hydroxide	1.0-2.5			2		

**FURTHER ADVICE:** Refer to the regulatory exposure limits for the workforce enforced in each country. Some components may not have been classified at the EU level under the dangerous substances and preparations regulation.

### 8.2 Exposure controls

#### Personal Protection

**RESPIRATORY PROTECTION:** No personal respiratory protective equipment normally required.

**EYE PROTECTION:** Tightly fitting safety goggles.

**HAND PROTECTION:** Impervious butyl rubber gloves Chemical resistant apron Long sleeved clothing. Remove and wash contaminated clothing before re-use.

**OTHER PROTECTIVE EQUIPMENT:** No Information

**ENGINEERING CONTROLS:** Avoid contact with skin, eyes and clothing. Ensure adequate ventilation, especially in confined areas.

#### Chemical Name:

EC No.:

CAS-No.:

#### DNELs - Derived no effect level

Route of Exposure	Workers				Consumers			
	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral	Not required							
Inhalation								
Dermal								

#### PNEC's - Predicted no effect concentration

Environmental protection target	PNEC
Fresh water	
Fresh water sediments	
Marine water	
Marine sediments	
Food chain	
Microorganisms in sewage treatment	
soil (agricultural)	
Air	

## 9. Physical and Chemical Properties

### 9.1 Information on basic physical and chemical properties

Appearance:	CLEAR/YELLOW LIQUID
Physical State	LIQUID
Odor	MILD SOLVENT
Odor threshold	Not determined
pH	12.5 - 13.5

<b>Melting point /freezing point (°C)</b>	Not determined
<b>Boiling point/range (°C)</b>	N.D. - N.D.
<b>Flash Point, (°C)</b>	94
<b>Evaporation rate</b>	Not determined
<b>Flammability (solid, gas)</b>	Not determined
<b>Upper/lower flammability or explosive limits</b>	N/A - N/A
<b>Vapour Pressure</b>	NOT DETERMINED
<b>Vapour density</b>	NOT DETERMINED
<b>Relative density</b>	Not determined
<b>Solubility in /Miscibility with water</b>	SOLUBLE
<b>Partition coefficient: n-octanol/water</b>	Not determined
<b>Auto-ignition temperature (°C)</b>	Not determined
<b>Decomposition temperature (°C)</b>	Not determined
<b>Viscosity</b>	LOW
<b>Explosive properties</b>	Not determined
<b>Oxidising properties</b>	Not determined

**9.2 Other information**

<b>VOC Content g/l:</b>	0
<b>Grams of VOC per liter of coating product as applied (mixture of Part A and Part B) per ASTM D2369 Method E.</b>	
<b>Specific Gravity (g/cm<sup>3</sup>)</b>	0.120

## 10. Stability and Reactivity

**10.1 Reactivity**

No reactivity hazards known under normal storage and use conditions.

**10.2 Chemical stability**

Stable under normal conditions.

**10.3 Possibility of hazardous reactions**

No Information

**10.4 Conditions to avoid**

Direct sources of heat

**10.5 Incompatible materials**

No Information

**10.6 Hazardous decomposition products**

No Information

## 11. Toxicological Information

**11.1 Information on toxicological effects****Acute Toxicity:**

Oral LD50:

Inhalation LC50:

**Irritation:**

No information available.

<b>Corrosivity:</b>	No information available.
<b>Sensitization:</b>	No information available.
<b>Repeated dose toxicity:</b>	No information available.
<b>Carcinogenicity:</b>	No information available.
<b>Mutagenicity:</b>	No information available.
<b>Toxicity for reproduction:</b>	No information available.
<b>STOT-single exposure:</b>	No information available.
<b>STOT-repeated exposure:</b>	No information available.
<b>Aspiration hazard:</b>	No information available.

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested. Data on individual components are tabulated below.

<u>CAS-No.</u>	<u>Name According to EEC</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>
111-76-2	2-butoxyethanol	1746 mg/kg, rat, oral		700 ppm/7hrs mouse, inhalation

**Additional Information:**  
No Information

## 12 Ecological Information

<b>12.1 Toxicity:</b>	
<b>EC50 48hr (Daphnia):</b>	No information
<b>IC50 72hr (Algae):</b>	No information
<b>LC50 96hr (fish):</b>	No information
<b>12.2 Persistence and degradability:</b>	No information
<b>12.3 Bioaccumulative potential:</b>	No information
<b>12.4 Mobility in soil:</b>	No information
<b>12.5 Results of PBT and vPvB assessment:</b>	No information
<b>12.6 Other adverse effects:</b>	No information

<u>CAS-No.</u>	<u>Name According to EEC</u>	<u>EC50 48hr</u>	<u>IC50 72hr</u>	<u>LC50 96hr</u>
111-76-2	2-butoxyethanol	No information	No information	
141-43-5	2-aminoethanol	No information	No information	
1310-73-2	sodium hydroxide	No information	No information	

## 13. Disposal Considerations

**13.1 WASTE TREATMENT METHODS:** It must undergo special treatment, e.g. at suitable disposal site, to comply with local regulations.

European Waste Code: 16 10 01  
Packaging Waste Code: 150110

## 14. Transport Information

14.1 UN number	UN1760
14.2 UN proper shipping name	CORROSIVE LIQUIDS, N.O.S.
Technical name	(MONOETHANOLAMINE)
14.3 Transport hazard class(es)	8
Subsidiary shipping hazard	
14.4 Packing group	II
14.5 Environmental hazards	
14.6 Special precautions for user	Not applicable
EM S-No.:	F-A,S-B
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code	Not applicable

## 15. Regulatory Information

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

### National Regulations:

Denmark Product Registration Number:

Danish MAL Code:

Sweden Product Registration Number:

Norway Product Registration Number:

WGK Class:

### Chemical Safety Assessment

15.2 No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

## 16. Other Information

Text for CLP Hazard Statements shown in Section 3 describing each ingredient:

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.

### Reasons for revision

No Information

List of References:

This Safety Data Sheet was compiled with data and information from the following sources:

The Ariel Regulatory Database provided by the 3E Corporation in Copenhagen, Denmark  
 ESIS (The European Chemical Substances Information System), provided by the European Commission  
 Joint Research Centre in Ispra, Italy  
 Annex VI of the EU Council Directive 67/548/EEC  
 Council Directive 67/548/EEC - Annex I or EU Council Directive 1999/45/EC  
 European Union (EC) Regulation No. 1272/2008 on the classification, labelling and packaging of  
 substances and mixtures (CLP Regulation)  
 EU Council Decision 2000/532/EC and its Annex entitled "List of Wastes"

Acronym & Abbreviation Key:

CLP	Classification, Labeling & Packaging Regulation
EC	European Commission
EU	European Union
US	United States
CAS	Chemical Abstract Service
EINECS	European Inventory of Existing Chemical Substances
REACH	Registration, Evaluation, Authorization of Chemicals Regulation
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
LTEL	Long term exposure limit
STEL	Short term exposure limit
OEL	Occupational exposure limit
ppm	Parts per million
mg/m3	Milligrams per cubic meter
TLV	Threshold Limit Value
ACGIH	American Conference of Governmental Industrial Hygienists
OSHA	Occupational Safety & Health Administration
PEL	Permissible Exposure Limits
VOC	Volatile organic compounds
g/l	Grams per liter
mg/kg	Milligrams per kilogram
N/A	Not applicable
LD50	Lethal dose at 50%
LC50	Lethal concentration at 50%
EC50	Half maximal effective concentration
IC50	Half maximal inhibitory concentration
PBT	Persistent bioaccumulative toxic chemical
vPvB	Very persistent and very bioaccumulative
EEC	European Economic Community
ADR	International Transport of Dangerous Goods by Road
RID	International Transport of Dangerous Goods by Rail
UN	United Nations
IMDG	International Maritime Dangerous Goods Code
IATA	International Air Transport Association
MARPOL	International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978
IBC	International Bulk Container

For further information, please contact: Technical Services Department

The information on this sheet corresponds to our present knowledge. It is not a specification and it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product or where instructions and recommendations are not followed.