

**Ardrox 6376**

Version: 5.0

Revision Date 13.08.2013

Print Date 20.07.2015

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

**1.1 Product identifier**

Trade name : Ardrox 6376

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

Use of the Sub- : Cleaning agent  
stance/Mixture  
Recommended restrictions : None known.  
on use

**1.3 Details of the supplier of the safety data sheet**

Company : Chemetall Ltd  
Denbigh Road  
Bletchley Milton Keynes MK1 1PB  
Telephone : 01908 649333  
Telefax : 01908 373939  
  
Contact person product safety  
Telephone : +49(0)6971652832  
E-mail address : msds.de@chemetall.com

**1.4 Emergency telephone number**

Emergency telephone : 01908 649333  
number

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

**Classification (REGULATION (EC) No 1272/2008)**

Skin corrosion, Category 1B H314: Causes severe skin burns and eye damage.

**Classification (67/548/EEC, 1999/45/EC)**

Corrosive R34: Causes burns.

**2.2 Label elements**


**Labelling (REGULATION (EC) No 1272/2008)**

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Hazard pictograms	:	
Signal word	:	Danger
Hazard statements	:	H314 Causes severe skin burns and eye damage.
Precautionary statements	:	<b>Prevention:</b> P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. P262 Do not get in eyes, on skin, or on clothing. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. <b>Response:</b> P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P303 + P361 + P353 IF ON SKIN (or hair): Remove/ 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. P308 P310 IF exposed or concerned: Immediately call a POISON CENTER or doctor/ physician. <b>Disposal:</b> P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:

- 1310-58-3 Potassium Hydroxide

**Labelling according to EC Directives (1999/45/EC)**

Hazard pictograms	:	
		Corrosive
R-phrases(s)	:	R34 Causes burns.

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S-phrase(s)	: S23 S24/25 S26  S36/37/39  S60	Do not breathe gas/fumes/vapour/spray. Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye/face protection. This material and its container must be disposed of as hazardous waste.
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Hazardous components which must be listed on the label:

- 1310-58-3 Potassium Hydroxide

**Detergents Regulation EC 907/2006** : Non-ionic surfactants less than 5 %

Anionic surfactants less than 5 %

**2.3 Other hazards**

Classification "corrosive" due to the extreme pH value.

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

**3.1 Substances**

not applicable

**3.2 Mixtures**

Chemical nature : Aqueous solution of alkali salts and surfactants.

**Hazardous components**

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
Ethoxylated Secondary Alcohols ( C11 - 15)	68131-40-8	Xn; R20/21/22- R38-R41	Skin Irrit. 2; H315  Eye Dam. 1; H318  Acute Tox. 4; H332  Acute Tox. 4;	>= 2.5 - < 3

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			H312 Acute Tox. 4; H302	
Fatty acid diethanolamide	68603-42-9 271-657-0	Xi; R38-R41	Skin Irrit. 2; H315  Eye Dam. 1; H318	>= 1 - < 2.5
Potassium Hydroxide	1310-58-3 215-181-3 01-2119487136-33	C; R35  Xn; R22	Met. Corr. 1; H290  Acute Tox. 4; H302  Skin Corr. 1A; H314	>= 1 - < 2

WEL substance :

2-(3-Methoxypropoxy)propan-1-ol	34590-94-8 252-104-2 01-2119450011-60		Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.	>= 2.5 - < 10
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For the full text of the R-phrases mentioned in this Section, see Section 16.  
For the full text of the H-Statements mentioned in this Section, see Section 16.  
For the full text of the Notas mentioned in this Section, see Section 16.

**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

General advice : First-aid crew: Ensure self-protection.  
Move out of dangerous area.  
Take off contaminated clothing and shoes immediately.

If inhaled : Move to fresh air.  
If symptoms persist, call a physician.

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- In case of skin contact : Wash off with soap and plenty of water.  
Call a physician immediately.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids.  
Call a physician immediately.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.  
Do NOT induce vomiting.  
Call a physician immediately.

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

- Symptoms : No information available.
- Risks : corrosive effects  
If swallowed, severe burns in the oral cavity and throat as well as danger of perforation of the digestive tract and stomach.

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

- Treatment : Treat symptomatically.  
For specialist advice physicians should contact the Poisons Information Service.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media : Carbon dioxide (CO<sub>2</sub>)  
Dry powder  
Alcohol-resistant foam  
Water spray

- Unsuitable extinguishing media : High volume water jet

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

- Specific hazards during fire-fighting : May form toxic gases on heating or in case of fire.  
Carbon monoxide  
Carbon dioxide (CO<sub>2</sub>)  
nitrogen oxides (NO<sub>x</sub>)

### 5.3 Advice for firefighters

- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
- Further information : Use water spray to cool unopened containers.

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### SECTION 6: Accidental release measures

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

Personal precautions : Ensure adequate ventilation.  
Wear personal protective equipment.

#### 6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.  
Avoid subsoil penetration.  
Inform the relevant authorities if it enters sewers, aquatic environment or soil.

#### 6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Ensure adequate ventilation.  
Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

#### 6.4 Reference to other sections

See chapter 8 and 13

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Advice on safe handling : Provide sufficient air exchange and/or exhaust in work rooms.  
Have eye wash bottle or eye rinse ready at the work place.

Advice on protection against fire and explosion : No special protective measures against fire required.  
The product is not flammable.

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

Requirements for storage areas and containers : Keep containers tightly closed in a cool, well-ventilated place.  
Store in a place accessible by authorized persons only.  
Protect from frost.

Advice on common storage : Do not store near acids.

Storage temperature : 5 - 35 °C

#### 7.3 Specific end uses

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Specific use(s) : Cleaning agent

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

**8.1 Control parameters**

Components	CAS-No.	Value	Control parameters	Update	Basis
2-(3-Methoxypropoxy)propan-1-ol	34590-94-8	TWA	50 ppm 308 mg/m <sup>3</sup>	2000-06-16	2000/39/EC
Further information	: skin: Identifies the possibility of significant uptake through the skin Indicative				
	34590-94-8	TWA	50 ppm 308 mg/m <sup>3</sup>	2005-04-06	GB EH40
Further information	: Sk: Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used				
Potassium Hydroxide	1310-58-3	STEL	2 mg/m <sup>3</sup>	2005-04-06	GB EH40

**DNEL/DMEL**

Potassium Hydroxide : End Use: DNEL, Workers  
 Exposure routes: Inhalation  
 Potential health effects: Long-term local effects  
 Value: 1 mg/m<sup>3</sup>

2-(3-Methoxypropoxy)propan-1-ol : End Use: DNEL, Workers  
 Exposure routes: Skin contact  
 Potential health effects: Long-term systemic effects  
 Value: 65 mg/kg bw/d

End Use: DNEL, Workers  
 Exposure routes: Inhalation  
 Potential health effects: Long-term systemic effects  
 Value: 310 mg/m<sup>3</sup>

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### PNEC

2-(3-Methoxypropoxy)propan-1-ol : Fresh water  
Value: 19 mg/l

Marine water  
Value: 1.9 mg/l

Behaviour in waste water treatment plants  
Value: 4168 mg/l

Fresh water sediment  
Value: 70.2 mg/kg

Marine sediment  
Value: 7.02 mg/kg

Soil  
Value: 2.74 mg/kg

## 8.2 Exposure controls

### Engineering measures

Ensure adequate ventilation, especially in confined areas.

### Personal protective equipment

Respiratory protection : In case of insufficient ventilation wear suitable respiratory equipment.  
Recommended Filter type:  
A-P2

Hand protection : Neoprene gloves  
Nitrile rubber  
Protective gloves complying with EN 374.  
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Eye protection : Eye protection (EN 166)  
Tightly fitting safety goggles  
Have eye wash bottle or eye rinse ready at the work place.

Skin and body protection : Chemical resistant protective clothing according to DIN EN 13034 (Type 6)

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Hygiene measures : Take off contaminated clothing and shoes immediately.  
Keep away from food, drink and animal feedingstuffs.  
Wash hands before breaks and immediately after handling the product.  
Avoid contact with skin and eyes.  
Do not breathe vapour.  
Do not breathe spray.

### Environmental exposure controls

General advice : Do not flush into surface water or sanitary sewer system.  
Avoid subsoil penetration.  
Inform the relevant authorities if it enters sewers, aquatic environment or soil.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance : liquid  
Colour : light yellow  
Odour : ether-like  
Flash point : not applicable  
Ignition temperature : not applicable  
pH : 12  
(undiluted)  
Freezing point : -1 °C  
Boiling point/boiling range : 100 °C  
Density : 1.04 g/cm<sup>3</sup>  
at 20 °C  
Water solubility : completely miscible  
Viscosity, dynamic : ca.10 mPa\*s

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### 9.2 Other information

Explosivity : no explosion risk

Directive 1999/13/EC on the limitation of emissions of volatile organic compounds : Value: 31 g/l

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No dangerous reaction known under conditions of normal use.

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : None known.

### 10.4 Conditions to avoid

Conditions to avoid : Protect from frost, heat and sunlight.

### 10.5 Incompatible materials

Materials to avoid : Strong acids

### 10.6 Hazardous decomposition products

Risk of decomposition. : No decomposition if stored and applied as directed.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Acute oral toxicity : Acute toxicity estimate: > 2,000 mg/kg  
Method: Calculation method

Acute oral toxicity  
Potassium Hydroxide : LD50: 365 mg/kg  
Species: rat

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2-(3-Methoxypropoxy)propan-1-ol : LD50: 5,135 mg/kg  
Species: rat

Acute inhalation toxicity : Acute toxicity estimate: > 20 mg/l  
vapour  
Exposure time: 4 h  
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 2,000 mg/kg  
Method: Calculation method

Acute dermal toxicity : LD50: 9,510 mg/kg  
2-(3-Methoxypropoxy)propan-1-ol : Species: rabbit

### Skin corrosion/irritation

Skin irritation : Causes severe burns.

### Serious eye damage/eye irritation

Eye irritation : Causes serious eye damage.

### Respiratory or skin sensitisation

Sensitisation : no data available

### Toxicology Assessment

Acute effects : If swallowed, severe burns in the oral cavity and throat as well as danger of perforation of the digestive tract and stomach.

## SECTION 12: Ecological information

### 12.1 Toxicity

Ecotoxicology studies for the product are not available.

Toxicity to fish  
Potassium Hydroxide : LC50: 28.6 mg/l  
Exposure time: 24 h

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Species: Fish  
Method: OECD Test Guideline 203

LC50: 80 mg/l  
Exposure time: 96 h  
Species: *Gambusia affinis* (Mosquito fish)

2-(3-Methoxypropoxy)propan-1-ol : LC50: 10,000 mg/l  
Exposure time: 96 h  
Species: *Pimephales promelas* (fathead minnow)

Toxicity to daphnia and other aquatic invertebrates  
Potassium Hydroxide : EC50: > 100 mg/l  
Species: *Daphnia*  
Method: OECD Test Guideline 202

2-(3-Methoxypropoxy)propan-1-ol : LC50: 1,919 mg/l  
Exposure time: 48 h  
Species: *Daphnia magna* (Water flea)

NOEC: 0.5 mg/l  
Exposure time: 22 d  
Species: *Daphnia magna* (Water flea)

Toxicity to algae  
2-(3-Methoxypropoxy)propan-1-ol : EC50: 1,000 mg/l  
Exposure time: 72 h  
Species: *Selenastrum capricornutum* (green algae)

Toxicity to bacteria  
2-(3-Methoxypropoxy)propan-1-ol : Growth inhibition  
EC10: 4,168 mg/l  
Species: *Pseudomonas putida*

### 12.2 Persistence and degradability

Biodegradability : no data available

### 12.3 Bioaccumulative potential

Bioaccumulation : Bioaccumulation is unlikely.

### 12.4 Mobility in soil

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Distribution among environmental compartments : no data available

### 12.5 Results of PBT and vPvB assessment

This mixture does not contain substances considered to be persistent, bioaccumulating and toxic (PBT)., This mixture does not contain substances considered to be very persistent and very bioaccumulating (vPvB).

### 12.6 Other adverse effects

Additional ecological information : slightly water endangering  
Do not flush into surface water or sanitary sewer system.  
Avoid subsoil penetration.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : Dispose of in accordance with local regulations.  
Contaminated packaging : Dispose of as unused product.  
Waste Code : Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

## SECTION 14: Transport information

### ADR

UN number : 1760  
UN proper shipping name : CORROSIVE LIQUID, N.O.S. Potassium Hydroxide  
Transport hazard class(es) : 8  
Packing group : II  
Classification Code : C9  
Hazard Identification Number : 80  
Limited Quantity (LQ) Inner : 1.00 L  
Packaging  
Maximum quantity : 30.00 KG  
Labels : 8  
Tunnel restriction code : (E)  
Environmentally hazardous : no

### IATA

UN number : 1760  
Description of the goods : Corrosive liquid, n.o.s. Potassium Hydroxide  
Class : 8

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Packing group : II  
Labels : 8

### IATA\_C

Packing instruction (cargo aircraft) : 855  
Packing instruction (LQ) : Y840  
Maximum quantity : 30.00 L  
Environmentally hazardous : no

### IATA\_P

Packing instruction (passenger aircraft) : 851  
Packing instruction (LQ) : Y840  
Maximum quantity : 1.00 L  
Environmentally hazardous : no

### IMDG

UN number : 1760  
Description of the goods : CORROSIVE LIQUID, N.O.S. Potassium Hydroxide  
Class : 8  
Packing group : II  
Labels : 8  
EmS Number 1 : F-A  
EmS Number 2 : S-B  
Marine pollutant : no

### RID

UN number : 1760  
Description of the goods : CORROSIVE LIQUID, N.O.S. Potassium Hydroxide  
Transport hazard class(es) : 8  
Packing group : II  
Classification Code : C9  
Hazard Identification Number : 80  
Labels : 8  
Limited Quantity (LQ) Inner : 1.00 L  
Packaging  
Maximum quantity : 30.00 KG  
  
Environmentally hazardous : no

## SECTION 15: Regulatory information

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

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REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

Water contaminating class (Germany) : WGK 1 slightly water endangering  
VWVWS A4

Other regulations : The product is classified and labelled in accordance with EC directives or respective national laws.  
Regional or national implementations of GHS may not implement all hazard classes and categories.

### 15.2 Chemical Safety Assessment

For a mixture it is not mandatory to include an exposure scenario in the material safety data sheet. The necessary safety - related information is stated in the first 16 sections.

## SECTION 16: Other information

### Full text of R-phrases referred to under sections 2 and 3

R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
R22	Harmful if swallowed.
R34	Causes burns.
R35	Causes severe burns.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.

### Full text of H-Statements referred to under sections 2 and 3.

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H332	Harmful if inhaled.

### Further information

The information provided is based on our current knowledge and experience and apply to the product as delivered. Regarding the product properties, these are not guaranteed. The delivery of this safety datasheet does not free the recipient of the product from his own responsibility to follow the relevant

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rules and regulations concerning this product.

| This data sheet contains changes from the previous version in section(s): 3