

# SAFETY DATA SHEET

(Regulation (EC) No 1907/2006)



Date of issue: March 2009

## 1 IDENTIFICATION

- 1.1 Product** **Alkaline electrolyte for rechargeable batteries**  
According to IEC 60993
- 1.2 Supplier** Alcad Limited  
P O Box 504, SE-572 25 Oskarshamn, Sweden  
Tel/Fax +46 491 68100 /+46 491 68110
- 1.3 Emergency contact** Alcad Limited; +46 491 68100

## 2 HAZARDS

Harmful if swallowed  
Causes severe burns  
The chemical risk is the caustic nature of the electrolyte

## 3 COMPOSITION

Hazardous substances:

<i>Substance</i>	<i>Formula</i>	<i>EINECS/ CAS</i>	<i>Conc. %</i>	<i>Symbol</i>	<i>Identification of danger</i>	<i>Risks</i>
<b>Potassium hydroxide</b>	KOH	215-181-3 / 1310-58-3	18-30	C	Corrosive	R22 R35
<b>Lithium hydroxide</b>	LiOH	215-183-4/ 1310-65-2	1,0- 2,5	C	Corrosive	R22 R35

## 4 FIRST AID MEASURES

- 4.1 Inhalation** Fresh air. Rinse mouth and nose with water. Medical advice.
- 4.2 Skin contact** Rinse immediately with plenty of water for 15 minutes. Medical treatment.
- 4.3 Eye contact** Rinse immediately with plenty of water during at least 15-30 minutes (keep eye-lids wide apart). Immediate hospital treatment.
- 4.4 Ingestion** If the injured is fully conscious: Plenty of water to drink. Do not induce vomiting. Immediate hospital treatment.

## 5 FIRE-FIGHTING MEASURES

Electrolyte is not combustible

Contact with certain metals e.g. zinc, lead, tin, aluminium and magnesium and their alloys can generate hydrogen gas (explosive with air).

Containers close to a fire must be moved or cooled with water to reduce risk of bursting

## 6 ACCIDENTAL RELEASE MEASURES

Avoid the product to come directly into any sewer or public waterway and quickly collect as much as possible into an approved container.

Flush remainder with plenty of water. Beware risk of slipping.

In case of large spillage contact the local authority.

## 7 HANDLING AND STORAGE

Emergency shower and facilities for rinsing eyes must be accessible.

Store in a dry place.

The product will be carbonised in contact with air. Keep the original package or container closed if not in use.

## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

When handling electrolyte eye protection glasses and protection gloves must be used.

Under normal condition of use no special personnel protection is required.

## 9 PHYSICAL PROPERTIES

Chemical composition	Water solution of KOH and LiOH
Appearance	Liquid
Boiling point	105–113o
Density	1200–1300 kg/m <sup>3</sup>
Flash point	Not applicable
PH	>13

## 10 STABILITY AND REACTIVITY

*Conditions to avoid* -

*Materials to avoid* Reacts violently with strong acids. Attacks certain metals, wood, textiles and leather.

*Hazardous decomposition products* None

## 11 TOXICOLOGICAL INFORMATION

### 11.1 Acute toxicity

Potassium hydroxide	LD <sub>50</sub> /oral/rat: 365 mg/kg
Lithium hydroxide	No data available

### 11.2 Health hazard

Skin contact can cause severe injury.

Eye contact rapidly causes severe damage. Risk of permanent damage.

Ingestion usually results in severe injury. Risk of permanent injuries.

## 12 ECOLOGICAL INFORMATION

The sharp pH rise may cause impact on fish, plankton and stationary organism. If not neutralised, the product can be toxic for aquatic organisms because of alkalinity.

## 13 DISPOSAL CONSIDERATIONS

Consult appropriate local authorities to ascertain proper disposal procedure.

## 14 TRANSPORT INFORMATION


### 14.1 United Nations

UN N°	1814 Solution
Proper shipping name	Potassium hydroxide solution
CL	8
Packing group	II

### 14.2 International conventions

Air	IATA
Sea	IMDG
Land	ADR (road) or RID (rail)

## 15 REGULATORY INFORMATION

<b>Classification</b>	Xn R22 C; R35	
<b>Labelling</b>	C; R22-35 S26-36/37/39-45	 Corrosive

<b>Risk phrases</b>	R22 R35	Harmful if swallowed Causes severe burns
<b>Safety advice phrases</b>	S26 S36/37/39 S45	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 In case of accident or if you feel unwell, seek medical advice immediately Show the label where possible

## 16 OTHER INFORMATION

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