Material Safety Data Sheet

Electrolyte KOH Liquid 30 Percent (RXSOL-25-1024-030)

1. Product and Company Identifaction

Product Name	Electrolyte KOH Liquid 30 Percent
Part Number	RXSOL-25-1024-025

Company Details:

RX MARINE INTERNATIONAL
105, A wing , BSEL , TECH PARK.
VASHI ,NEW BOMBAY 400703 INDIA

Branch : Kandla, Mumbai , Chennai, Vizag, Kolkata, UAE , OMAN , CANADA and KENYA

Phone	+91 22 20871200 - 1400
Fax	+91 22 27612100 :::AOH :0091 9821214367
Email	mail@rxmarine.com
Website	www.rxmraine.com

2. Composition / informationon ingredients

Chemical Name	CAS No	EC number	Weight	Formula
Potassium hydroxide	1310-58-3	215-181-3	56.11 g/mol	KOH

3. Hazards Identification

Classification of the substance or mixture	Corrosive to metals (Category 1), H290 Acute toxicity, Oral (Category 4), H302 Skin corrosion (Category 1A), H314 For the full text of the H-Statements mentioned in this Section, see Section 16.
Signal Word	Danger.
Hazard Statements	H290 May be corrosive to metals. H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage.

Precautionary statements response	P234 Keep only in original packaging. P260 Do not breathe dust. P264 Wash hand thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P280 Wear protective gloves/protective clothing/eye protection/face protection. P301 + P317 IF SWALLOWED: Get medical help. P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P302 + P361 + P354 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Immediately rinse with water for several minutes. P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305 + P354 + P338 IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P316 Get emergency medical help immediately. P330 Rinse mouth. P363 Wash contaminated clothing before reuse. P390 Absorb spillage to prevent material damage. P405 Store locked up. P406 Store in corrosive resistant/ container with a resistant inner liner

4. First Aid Measures

General advice	Show this safety data sheet to the doctor in attendance.
If inhaled	Move to fresh air in case of accidental inhalation of dust or mists. Keep patient warm. In case of shortness of breath, give oxygen. Apply artificial respiration only if patient is not breathing or under medical supervision. No artificial aspiration mouth to mouth or mouth to nose. Use suitable instruments/apparatus.
Eye Contact	If the substance has got into the eyes, immediately wash out with plenty of water at least 15 minutes. Obtain medical attention.
Swallowed	Rinse mouth. After swallowing make victim drink water (two glasses at the most), call in physician. Do not attempt to neutralize.
Skin Contact	Remove contaminated clothing and wash affected skin with soap and water. Dab with polyethylene glycol 400. Obtain medical attention.
Most important symptoms and effects, both acute and delayed	The most important known symptoms and effects are described
Indication of any immediate medical attention and special treatment needed	No data available

5. Fire-fighting Measures

Suitable extinguishing media	In adaption to materials stored in the immediate neighborhood.
Special hazards arising from the substance or mixture	Non-combustible. Ambient fire may liberate hazardous vapors. The following may develop in event of fire: potassium oxides.
Further information	Contain escaping vapors with water. Prevent fire-fighting water from entering surface water or ground water.
Advice for firefighters	Do not stay in dangerous zone without self-contained breathing apparatus. In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Evacuate personnel to safe areas. Do not breathe vapors or spray mist. Wear a positive-pressure supplied-air respirator, flame retardant antistatic protective clothing. Shut off leaks if without risk. Keep people away from and upwind of spill/leak.
Enviromental Precaution	Contain or absorb leaking liquid with sand or earth, consults an expert. Prevent liquid entering sewers, basements and workpits. If substance has entered a water course or sewer or contaminated soil, advise police.
Methods and materials for containment and cleaning	Spillage : soak up with inert absorbent material (e.g. sand, silica gel). Prevent liquid entering sewers, basements and workpits. Transfer to covered drums. Dispose of promptly.
Reference to other sections	For disposal see section 13.

7. Handling and Storage

Advice on safe handling	Provision of good ventilation in working area. The floor must be alkaline resistant. Do not leave container open. Avoid spillage. Do not transport together with incompatible substances.
Conditions for safe storage, including any incompatibilities	Keep tightly closed in a dry, cool and well-ventilated place. Keep out of direct sunlight and away from heat, water and incompatible materials. Requirements for containers, no metal containers.
Specific end use(s)	Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

8. Exposure controls and personal protection

Appropriate engineering controls	The product should only be used in ventilation hoods and fans
Eye/face protection	Goggles giving complete protection to eyes.
Body Protection	Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Skin protection	Chemical resistant apron / corrosive protective clothing, heavy duty work shoes. Handle with gloves - Full contact wears gloves from nitrile rubber material. - Splash contact wears gloves from nitrile rubber material. The select protective gloves have to satisfy the specifications of EU Directive 89/686 EEC and standard EN 374 derived from it.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment. Required when vapor/aerosols are generated filter P2 (
Control of environmental exposure	Prevent liquid entering sewers, basements and workpits.

9. Physical and chemical properties

Physical state	Liquid
Colour	Colorless
Odour	Odorless
Odor Threshold	Not Applicable
pH	>13.5 at 20ºC
Melting Point	Not Available
Boiling Point	Not Available
Flash Point	Not Available
Evaporation Rate	Not Applicable
Flammability (solid, gas)	No data available
Explosive limits	No Data Available
Upper/lower flammability or explosive limits	No data available
Autoignition temperature	Not Available
Decomposition temperature	No data available
Vapour pressure	No data available
Density	1.28 g/ml at 20ºC
Vapour Density	No Data Available
Freezing point	No data available
Specific Gravity	No data available

Partition coefficient	No data available
Explosive properties	No data available
Solubility	Not Available
Relative density	Not Available
Ignition temperature	No information available.
Particle characteristics	No data available
Viscosity	No data available

10. Stability and reactivity

Reactivity	Exothermic dissolution process with water.
Stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Risk of explosion in contact with fluorine, aluminium hexachloroplatinate/heat, bromoform + crown ether, but-2- ene-1,4-diol (heat), calcium powder, calcium carbide/chlorine, chlorine dioxide, cyanogen azide, 1,2- dichloroethene, magnesium, sodium azide + benzoyl chloride, nitrobenzene, nitroethane, nitromethane, nitroparaffines, N-nitrosomethylurea, phosphorus, nitrogen trichloride, tetrahydrofurane (peroxide containing), 2,4,6-trinitrotoluene, zinc, tin. The substance can react dangerously with acids, water, hydrogen peroxide, acetonitrile, acrolein, aldehydes, aluminium carbide, ammonium salts/ammonia, chloroform/methanol, cyclopentadiene, acetic acid, germanium, halogenated hydrocarbons, iodine pentafluoride, potassium peroxodisulfate, cresols, maleic anhydride, itrophenol, phosphorus trioxide, hydrogen sulfide, tetrafluoropropanol, trichloroethene, vinyl acetate, sugars (reducing).
Conditions to avoid	Not Available
Incompatible materials	For incompatible material see Section 10.3.
Hazardous decomposition products	Potassium oxides (Hazardous decomposition products from under fire condition)

11. Toxicological information

Acute toxicity	Not Available
Skin corrosion/irritation	Burns
Respiratory or skin sensitization	No data available
Serious eye damage/eye irritation	Burns. Risk of blindness.
Germ cell mutagenicity	No data available
Specific target organ toxicity - single exposure	The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.
Specific Target Organ Toxicity – Repeated Exposure	No data available
Aspiration Hazard	May be fatal if swallowed and enters the airways.

12. Ecological information

Persistence and degradability	No data available
Bioaccumulative potential	Not Available
Toxicity	Not Available
Mobility in soil	Not Available
Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.
Other adverse effects	Harmful effect on aquatic organisms. Toxic effect on fish and plankton. Harmful effect due to pH shift. Forms corrosive mixtures with water even if diluted. Does not cause biological oxygen deficit. Neutralization possible in waste water treatment plants. Do not allow to enter waters, waste w

13. Disposal considerations

Product	There are no uniform EC Regulations for the disposal of chemicals or residues. Chemical residues generally count as special waste. The disposal of the latter is regulated in the EC member countries through corresponding law and regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose of special waste or burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Obser
Contaminated packaging	Disposal in compliance with official regulations. Handle contaminated packaging as hazardous waste in the same way of the substance itself. If not officially specified differently, non-contaminated packaging may be treated like hou

14. Transport information

UN number	1814
UN proper shipping name	POTASSIUM HYDROXIDE, SOLUTION
Transport hazard class(es)	8
Packaging group	II
Environmental hazards	No
Special precautions for user	Yes
Further information	No data available

15. Regulatory information

Safety, health and environmental regulations specific for the product in question	This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.
Other regulations	No data available
Chemical Safety Assessment	For this product a chemical safety assessment was not carried out.

16. Other information

Other Information	The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, how so ever arising, even if Rx Marine International has been advised of the possibility of such damages.