

# KOH Liquid 3 Percent (RXSOL-25-1024-215)

MATERIAL SAFETY DATA SHEET • SALALAH CHEMICAL, OMAN

## 1. Product and Company Identification

[www.rxmarine.com](http://www.rxmarine.com)

|              |                      |
|--------------|----------------------|
| Product Name | KOH Liquid 3 Percent |
| Part Number  | RXSOL-25-1024-020    |

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   | <a href="mailto:mail@rxmarine.com">mail@rxmarine.com</a> |
| Website | <a href="http://www.rxmarine.com">www.rxmarine.com</a>   |

## 2. Composition / Information on ingredients

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| Chemical Name                                                                         | Cas No    | EC No     | Weight | Formula |
|---------------------------------------------------------------------------------------|-----------|-----------|--------|---------|
| potassium hydroxide pellets for analysis (max. 0.05% Na)<br>EMSURE® ACS, Reag. Ph Eur | 1310-58-3 | 215-181-3 | 3%     | KOH     |

## 3. Hazards Identification

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|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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                   | P234 Keep only in original packaging. P260 Do not breathe dust. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| Classification of the substance or mixture | No data available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Supplemental Hazard Statements             | No data available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Other hazards | This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## 4. First Aid Measures

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|                                                                            |                                                                                                                     |
|----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| General advice                                                             | First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.          |
| If inhaled                                                                 | After inhalation fresh air. Call in physician.                                                                      |
| Eye Contact                                                                | Rinse out with plenty of water. Remove contact lenses                                                               |
| Swallowed                                                                  | Make victim drink water (two glasses at most). Consult doctor if feeling unwell.                                    |
| Skin Contact                                                               | Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician immediately.         |
| Inhalation                                                                 | No data available                                                                                                   |
| Ingestion                                                                  | No data available                                                                                                   |
| Most important symptoms and effects, both acute and delaye                 | The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11 |
| Indication of any immediate medical attention and special treatment needed | No data available                                                                                                   |

## 5. Fire-fighting Measures

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|                                                       |                                                                                                                                                               |
|-------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Flammability                                          | No data available                                                                                                                                             |
| Suitable extinguishing media                          | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.                                                       |
| Unsuitable extinguishing media                        | For this substance/mixture no limitations of extinguishing agents are given                                                                                   |
| Special hazards arising from the substance or mixture | Potassium oxides Not combustible. Ambient fire may liberate hazardous vapours                                                                                 |
| Further information                                   | Prevent fire extinguishing water from contaminating surface water or the ground water system.                                                                 |
| Hazardous combustion products                         | No data available                                                                                                                                             |
| Advice for firefighters                               | Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing. |
| Protective Equipment                                  | No data available                                                                                                                                             |
| Specific Hazards Arising from the Chemical            | No data available                                                                                                                                             |

## 6. Accidental Release Measures

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|                                                                     |                                                                                                                                                                                                                                                                                           |
|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions, protective equipment and emergency procedures | Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8. |
| Spillage                                                            | No data available                                                                                                                                                                                                                                                                         |
| Personal Protection                                                 | No data available                                                                                                                                                                                                                                                                         |
| Environmental Precaution                                            | Do not let product enter drains. Risk of explosion.                                                                                                                                                                                                                                       |
| Methods and materials for containment and cleaning                  | Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb® ). Dispose of properly. Clean up affected area                                                                  |
| Reference to other sections                                         | For disposal see section 13                                                                                                                                                                                                                                                               |

## 7. Handling and Storage

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|                                                              |                                                                                                                                                                                                                                                        |
|--------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Advice on protection against fire and explosion              | No data available                                                                                                                                                                                                                                      |
| Incompatible materials                                       | No data available                                                                                                                                                                                                                                      |
| Hygiene measures                                             | No data available                                                                                                                                                                                                                                      |
| Advice on safe handling                                      | No data available                                                                                                                                                                                                                                      |
| Conditions for safe storage, including any incompatibilities | No data available                                                                                                                                                                                                                                      |
| Storage conditions                                           | No aluminium, tin, or zinc containers. No metal containers. Millipore- 1.05029 Page 5 of 13 The life science business of Merck operates as MilliporeSigma in the US and Canada Tightly closed. Dry. Recommended storage temperature see product label. |
| Storage class                                                | Storage class (TRGS 510): 8B: Non-combustible, corrosive hazardous materials                                                                                                                                                                           |
| Specific end use(s)                                          | Apart from the uses mentioned in section 1.2 no other specific uses are stipulated                                                                                                                                                                     |
| Advice on general occupational hygiene                       | No data available                                                                                                                                                                                                                                      |

## 8. Exposure controls and personal protection

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|                     |                                                                                                                                              |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Exposure controls   | Personal protective equipment                                                                                                                |
| Engineering Control | No data available                                                                                                                            |
| Eye/face protection | Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses |
| Body Protection     | Protective clothing                                                                                                                          |

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Skin protection          | This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: <a href="http://www.kcl.de">www.kcl.de</a> ). Full contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:KCL 741 Dermatril® L This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: <a href="http://www.kcl.de">www.kcl.de</a> ). Splash contact |
| Respiratory protection   | Required when dusts are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system. Recommended Filter type: Filter type P2 The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Other Protection Measure | No data available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

## 9. Physical and chemical properties

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|                                              |                                         |
|----------------------------------------------|-----------------------------------------|
| Physical state                               | Solid                                   |
| Colour                                       | Colorless                               |
| Odour                                        | Odorless                                |
| Odor Threshold                               | No data available                       |
| pH                                           | ca.13,5 at 5,6 g/l at 25 °C             |
| Melting Point                                | 360 °C                                  |
| Boiling Point                                | 327 °C at 1.013 hPa                     |
| Flash Point                                  | No data available                       |
| Evaporation Rate                             | No data available                       |
| Flammability (solid, gas)                    | No data available                       |
| Explosive limits                             | No data available                       |
| Upper/lower flammability or explosive limits | No data available                       |
| Decomposition temperature                    | No data available                       |
| Vapour pressure                              | 1 hPa at 719 °C                         |
| Viscosity                                    | No data available                       |
| Density                                      | 1.03-1.04 g/cm <sup>3</sup> at 20 °C    |
| Relative Density                             | No data available                       |
| Specific Gravity                             | No data available                       |
| Partition coefficient                        | No data available                       |
| Explosive properties                         | No data available                       |
| Solubility                                   | 1.130 g/l at 20 °C - completely soluble |
| Ignition temperature                         | No data available                       |
| Particle characteristics                     | No data available                       |

## 10. Stability and reactivity

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|                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reactivity                         | No data available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Chemical stability                 | The product is chemically stable under standard ambient conditions (room temperature)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Possibility of hazardous reactions | Risk of explosion with: Tetrahydrofuran Peroxides sodium azide benzoyl chloride Calcium in powder form carbides Chlorine halogen oxides organic nitro compounds phosphorus nonmetallic oxides chlorine dioxide Fluorine magnesium Nitroso compound nitrogen trichloride Exothermic reaction with: acetonitrile Acrolein Aldehydes Millipore- 1.05029 Page 8 of 13 The life science business of Merck operates as MilliporeSigma in the US and Canada Alcohols acetic acid Halogenated hydrocarbon halogen-halogen compounds Peroxides hydrogen sulphide hydrogen peroxide vinyl acetate Reducing agents Acids Acid chlorides Acid anhydrides peroxi compounds Methanol Chloroform Risk of ignition or formation of inflammable gases or vapours with: Aluminum Ammonium salts Germanium anhydrides Oxides of phosphorus azides Lead Copper Copper alloys Tin Zinc Release of: Hydrogen |
| Conditions to avoid                | No data available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Incompatible materials             | No data available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Hazardous product decomposition    | No data available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

## 11. Toxicological information

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|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Acute toxicity                                 | LD50 Oral - Rat - male - 333 mg/kg (OECD Test Guideline 425) Symptoms: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach. Acute toxicity estimate Oral - 333 mg/kg (Calculation method) Symptoms: burns of mucous membranes, Cough, Shortness of breath, Possible damages:; damage of respiratory tract |
| Skin corrosion/irritation                      | Skin - Rabbit Result Causes burns. Remarks (IUCLID)                                                                                                                                                                                                                                                                                                                          |
| Serious eye damage/irritation                  | Eyes - Rabbit Result Causes serious eye damage. (OECD Test Guideline 405) Remarks Causes serious eye damage.                                                                                                                                                                                                                                                                 |
| Respiratory or skin sensitization              | Sensitisation test - Guinea pig Result negative Remarks (IUCLID)                                                                                                                                                                                                                                                                                                             |
| Carcinogenicity                                | No data available                                                                                                                                                                                                                                                                                                                                                            |
| Germ cell mutagenicity                         | Test Type Ames test Test system S. typhimurium Metabolic activation with and without metabolic activation Result negative Remarks (ECHA) Test Type In vitro mammalian cell gene mutation test Test system mouse Lymphoma cells Metabolic activation with and without metabolic activation Method OECD Test Guideline 476 Result negative                                     |
| Reproductive toxicity                          | No data available                                                                                                                                                                                                                                                                                                                                                            |
| Specific target organ toxicity-single exposure | No data available                                                                                                                                                                                                                                                                                                                                                            |

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Additional Information | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Millipore- 1.05029 Page 10 of 13 The life science business of Merck operates as MilliporeSigma in the US and Canada To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. After uptake: Vomiting shock Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## 12. Ecological information

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|                                                     |                                                                                                                                                                                                                                                            |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Persistence and degradability                       | The methods for determining the biological degradability are not applicable to inorganic substances.                                                                                                                                                       |
| Toxicity to fish                                    | Static test LC50 - Gambusia affinis (Mosquito fish) - 80 mg/l - 96 h Remarks: (ECOTOX Database)                                                                                                                                                            |
| Toxicity to daphnia and other aquatic invertebrates | No data available                                                                                                                                                                                                                                          |
| Toxicity                                            | No data available                                                                                                                                                                                                                                          |
| Toxicity to bacteria                                | No data available                                                                                                                                                                                                                                          |
| Toxicity to algae                                   | No data available                                                                                                                                                                                                                                          |
| Products Biodegradation                             | No data available                                                                                                                                                                                                                                          |
| Mobility in soil                                    | No data available                                                                                                                                                                                                                                          |
| Results of PBT av PvB assessment                    | This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.                                                         |
| Endocrine disrupting properties                     | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher |
| Other adverse effects                               | Harmful effect due to pH shift. Forms corrosive mixtures with water even if diluted. Neutralisation possible in waste water treatment plants. Discharge into the environment must be avoided.                                                              |

## 13. Disposal considerations

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|                        |                   |
|------------------------|-------------------|
| Product                | No data available |
| Contaminated packaging | No data available |
| Waste treatment Method | No data available |

## 14. Transport information

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|                           |                                                                |                          |           |
|---------------------------|----------------------------------------------------------------|--------------------------|-----------|
| UN number                 | ADR/RID:1813                                                   | IMDG:1813                | IATA:1813 |
| UN proper shipping name   | ADR/RID: POTASSIUM HYDROXIDE, SOLID IMDG: POTASSIUM HYDROXIDE, |                          |           |
| Transport hazard classess | ADR/RID:8                                                      | IMDG:8                   | IATA:8    |
| Packaging group           | ADR/RID:II                                                     | IMDG:II                  | IATA:II   |
| Environmental hazards     | ADR/RID:No                                                     | IMDG Marine pollutant:No | IATA: No  |

|                              |                             |
|------------------------------|-----------------------------|
| Special precautions for user | Tunnel restriction code (E) |
| Further information          | No data available           |

## 15. Regulatory information

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|                                                                                                |                                                                                                                                                                                                                |
|------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Safety, health and environmental regulations/legislation specific for the substance or mixture | This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006                                                                                                                |
| Other regulations                                                                              | Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable. Take note of Dir 94/33/EC on the protection of young people at work |
| Chemical Safety Assessment                                                                     | A Chemical Safety Assessment has been carried out for this substance                                                                                                                                           |

## 16. Other information

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|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Other Information | <p>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, howsoever arising, even if Rx Marine International has been advised of the possibility of such damages.</p> <p>DISCLAIMER OF LIABILITY :The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.</p> |
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