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|  | **Gujarat Alkalies and Chemicals Ltd.****Vadodara** |
| **SECTION 1: Product and Company Identification** |
| **Name** | **POTASSIUM HYDROXIDE SOLUTION** |
| **Company** | M/s Gujarat Alkalies and chemicals limited, P.O. Petrochemicals, Dist.: - Vadodara, Gujarat (India), Pin Code: 391346 |
| **Synonyms** | Caustic Potash Lye |
| **Emergency Contact Details** | Phone no. | 09979897101, 09879604102 |
| E-mail | headmarketing@gacl.co.inccr@gacl.co.in |
| **SECTION 2: Hazards Identification** |
| **Emergency Overview** |
|  | DANGER:May be corrosive to metalsHarmful if swallowedCauses severe skin burns and eye damage |
| **Potential Health Effects** |
| **Inhalation** | Can cause severe respiratory irritation. Inhalation of mists or vapors may Produce upper airway edema, wheezing, pulmonary edema, pneumonitis and respiratory failure. |
| **Skin** | Contact causes severe skin irritation and possible burns. |
| **Eyes** | Causes severe eye burns. corrosive to the eyes and may cause severe damage including blindness. |
| **Ingestion** | Ingestion may produce burns to the lips, oral cavity, upper airway, Esophagus and possibly the digestive tract. Ingestion of this product may cause nausea, vomiting and diarrhea. |
| **Disposal** | Dispose of contents/container to an approved waste disposal plant. |
| **SECTION 3: Composition/information on ingredients** |
| **Component** | **CAS-No.** | **EC-No.** | **Weight %** |
| Potassium Hydroxide Lye | 1310-58-3 | 215-181-3 | ~ 30 – 50 % |
| Water  | 7732-18-5 | 231-791-2 | ~ 50 – 70 % |
| **SECTION 4: First Aid Measures** |
| **Inhalation** | If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| **Skin** | Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician. |
| **Eyes** | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. |
| **Ingestion** | Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. |
| **Most important symptoms/effects** | Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation |
| **Notes to Physician** | Treat symptomatically |
| **SECTION 5: Fire Fighting Measures** |
| **Suitable Extinguishing Media** | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| **Flash Point** | Not Applicable | **Explosion Limits**  |
| **Auto ignition Temperature** | No data available | **Upper**  | No data available |
|  |  | **Lower** | No data available |
| **Hazardous Combustion Products** | Hazardous decomposition products formed under fire conditions. - Potassium oxides. |
| **Specific Hazards Arising from the Chemical** | Potassium oxides. Keep product and empty container away from heat and sources of ignition. |
| **NFPA: Health: 3 Flammability: 0 Reactivity: 0 Special hazards: NA** |
| **SECTION 6: Accidental Release Measures** |
| **Personal Precautions** | Use personal protective equipment. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid contact with skin, eyes and inhalation of vapors. Do not use metal tools or equipment. |
| **Environmental precautions** | Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. |
| **Methods and materials for containment and cleaning up** | Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal. |
| **SECTION 7: Handling and Storage** |
| **Handling** | Use only under a chemical fume hood. Do not get in eyes, on skin, or on clothing. Do not breathe vapors or spray mist. |
| **Storage** | Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Corrosives area. Do not store in metal containers. |
| **SECTION 8: Exposure Controls/Personal Protection** |
| **Exposure Guidelines:** |
| **Component** | **OSHA PEL** | **ACGIH TLV** |
| Potassium Hydroxide | Ceiling: 2 mg/m3 | Ceiling: 2 mg/m3 |
| **Engineering Measures** | Use only under a chemical fume hood. Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location. |
| **Personal Protective Equipment** |
| **Eye/face Protection** | Tightly fitting safety goggles. Face shield. Use equipment for eye protection tested and approved under appropriate government standards. |
| **Skin and body protection** | Wear appropriate protective gloves and clothing to prevent skin exposure. Long sleeved clothing. |
| **Respiratory Protection** | Where risk assessment shows air-purifying respirators are appropriate use or type respirator cartridges as a backup to engine protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards. |
| **SECTION 9: Physical and Chemical Properties** |
| **Appearance** | Colorless Liquid | **Water solubility** | Soluble in all proportions |
| **Odour** | Odorless | **Auto-ignition****temperature** | No data available |
| **pH** | 12.0 (0.1M) | **Viscosity** | 5.25 cSt @ 68°F / 20°C (50% solution) |
| **Melting point/freezing****point** | 39.2 °F (4 °C) (50% solution) | **Flammability (solid, gas)** | No data available |
| **Initial boiling point and****boiling range** | 289.4 °F (143 °C) (50% solution) | **Decomposition****temperature** | No data available |
| **Vapour pressure** | 27 mm Hg @ 60°C / 140°F (50% solution) | **Relative density** | 1.32-1.50 |
| **Vapour density** | No data available | **Oxidizing properties** | No data available |
| **SECTION 10: Stability and Reactivity** |
| **Reactive Hazard** | No data available |
| **Stability** | Stable under recommended storage conditions |
| **Conditions to Avoid** | Incompatible products. |
| **Incompatible Materials** | Acids, Halogens, Acid anhydrides, Metals |
| **Hazardous Decomposition Products** | Hazardous decomposition products formed under fire conditions. - Potassium oxides |
| **Hazardous Polymerization** | Hazardous polymerization does not occur. |
| **Hazardous Reactions** | None under normal processing. |
| **SECTION 11: Toxicological Information** |
| **Acute toxicity** | Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation. |
| **Carcinogenicity** | Not listed. |
| **SECTION 12: Ecological Information** |
| **Eco toxicity** | Do not allow material to contaminate ground water system.  |
| **Other** | Harmful to aquatic life. LC50: 80 mg/L, 96h static (Gambusia affinis) in fresh water. |
| **SECTION 13: Disposal Considerations** |
| **Waste treatment methods** |
| **Waste** | Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification. |
| **Contaminated packaging** | Dispose of as unused product. |
| **SECTION 14: Transport Information** |
| **UN number** | 1814 |
| **UN proper shipping name** | POTASSIUM HYDROXIDE SOLUTION |
| **Transport hazard class** | 8 |
| **Packaging group** | II |
| **Environmental hazards** | IMDG Marine pollutant: no  |
| **SECTION 15: Regulatory Information** |
| **Safety, health and environmental regulations/legislation specific for the substance or mixture**This safety datasheet complies with the requirements of Regulation.**Chemical safety assessment**A Chemical Safety Assessment has been carried out for this substance. |
| **SECTION 16: Other Information** |
| DisclaimerThe information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text. |