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|  | **Gujarat Alkalies and Chemicals Ltd.****Vadodara** |
| **SECTION 1: Product and Company Identification** |
| **Name** | **POTASSIUM HYDROXIDE FLAKES** |
| **Company** | M/s Gujarat Alkalies and chemicals limited, P.O. Petrochemicals, Dist.: - Vadodara, Gujarat (India), Pin Code: 391346 |
| **Synonyms** | Potassium hydrate; Caustic potash. |
| **Emergency Contact Details** | Phone no. | 09979897101, 09879604102 |
| E-mail | headmarketing@gacl.co.inccr@gacl.co.in |
| **SECTION 2: Hazards Identification** |
| **Emergency Overview** |
|   | Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Do not breathe dust/fume/gas/mist/vapours/spray Wear protective gloves/protective clothing/eye protection/face protection Use only outdoors or in a well-ventilated area Keep only in original container |
| **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 Flakes | 1310-58-3 | 215-181-3 | ~ 100 % |
| **SECTION 4: First Aid Measures** |
| **Inhalation** | Move to fresh air. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. If not breathing, give artificial respiration. |
| **Skin** | Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required. |
| **Eyes** | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required. |
| **Ingestion** | Do not induce vomiting. Call a physician immediately. |
| **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** | Substance is nonflammable; use agent most appropriate to extinguish surrounding fire. |
| **Flash Point** | Not Applicable | **Explosion Limits**  |
| **Auto ignition Temperature** | No data available | **Upper**  | No data available |
|  |  | **Lower** | No data available |
| **Hazardous Combustion Products** | Potassium oxides. |
| **Specific Hazards Arising from the Chemical** | Thermal decomposition can lead to release of irritating gases and vapours. Contact with metals may evolve flammable hydrogen gas. Water reactive. |
| **NFPA: Health: 3 Flammability: 0 Reactivity: 1 Special hazards: N/A** |
| **SECTION 6: Accidental Release Measures** |
| **Personal Precautions** | Use personal protective equipment. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid dust formation. Do not get in eyes, on skin, or on clothing. |
| **Environmental precautions** | Should not be released into the environment. Do not flush into surface water or sanitary sewer system. |
| **Methods and materials for containment and cleaning up** | Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation. |
| **SECTION 7: Handling and Storage** |
| **Handling** | Use only under a chemical fume hood. Avoid dust formation. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Wear personal protective equipment. |
| **Storage** | Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Corrosives area. |
| **SECTION 8: Exposure Controls/Personal Protection** |
| **Exposure Guidelines:** |
| **Component** | **OSHA PEL** | **ACGIH TLV** |
| Potassium Hydroxide flakes | Ceiling: 2 mg/m3 | Ceiling: 2 mg/m3 |
| **Engineering Measures** | Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. |
| **Personal Protective Equipment** |
| **Eye/face Protection** | Face shield and safety glasses 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. |
| **Respiratory Protection** | Where risk assessment shows air-purifying respirators are appropriate use 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** | Light yellow solid | **Water solubility** | Soluble in water |
| **Odour** | Odorless | **Auto-ignition****temperature** | No data available |
| **pH** | 13.5 (0.1M) | **Viscosity** | No data available |
| **Melting point/freezing****point** | 360 °C | **Flammability (solid, gas)** | No data available |
| **Initial boiling point and****boiling range** | 1,320 °C | **Decomposition****temperature** | No data available |
| **Vapour pressure** | 1 mmHg at 719 °C | **Relative density** | 2.044 g/cm3 |
| **Vapour density** | No data available | **Oxidizing properties** | No data available |
| **Specific Gravity** | 2.04 |  |  |
| **SECTION 10: Stability and Reactivity** |
| **Reactive Hazard** | Yes |
| **Stability** | Water reactive. Moisture sensitive. Air sensitive. |
| **Conditions to Avoid** | Avoid dust formation. Incompatible products. Excess heat. Exposure to moist air or water. |
| **Incompatible Materials** | Nitro compounds, Organic materials, Magnesium, Copper, Water, reacts violently with: Metals, Light metals, contact with aluminum, tin and zinc liberates hydrogen gas. Contact with n formation of shock sensitive salts., vigorous reaction with: Alkali metals, Halogens, Azides, Anhydrides. |
| **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** | LD50 Oral - 273 mg/kg (Rat) |
| **Carcinogenicity** | Not listed |
| **SECTION 12: Ecological Information** |
| **Eco toxicity** | LC50: = 80 mg/L, 96h static (Gambusia affinis) |
| **Other** | Harmful to aquatic life. |
| **SECTION 13: Disposal Considerations** |
| **Waste treatment methods** | Waste is classified as hazardous. Dispose of in accordance with the local regulations. |
| **Product** | 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** | 1813 |
| **UN proper shipping name** | Potassium hydroxide, solid |
| **Transport hazard class** | 8 |
| **Packaging group** | II |
| **Environmental hazards** | 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 was not 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. |