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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.in](mailto:headmarketing@gacl.co.in)  [ccr@gacl.co.in](mailto:ccr@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** | | | | | | | | | | | | |
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