

Material Safety Data Sheets (MSDS)

Potassium Hydroxide Flake

Identification of Product

Chemical Code: CHE-P18

Chemical Name: Potassium Hydroxide Flake

Chemical Grade:

Chemical Formula: HKO

Chemical Weight: 56,11 g/mol

CAS No: 1310-58-3

Chemical Synonyms: Caustic Potash

Hazards Identification

REACH No: 01-2119487136-33-XXXX

Signal Word: Danger

Supplemental Hazard Information:

Additional Hazard Information: 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.



Hazards statements

H290 - May be corrosive to metals.

H302 - Harmful if swallowed.

H314 - Causes severe skin burns and eye damage.

Precautionary statements

P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection.

P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304 + P340 + P310 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Composition of Chemical

Chemical Formula: HKO

EC No 1272/2008: 01-2119487136-33-XXXX

First Aid Measures

General Advice: Consult a physician. Show this safety data sheet to the doctor in attendance.

If: Inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

If: Skin Contact: Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

If: Eye Contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If: Swallowed: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Important Symptoms: The most important known symptoms and effects are described in the labeling section.

Immediate Medical Attention: No Data Available

Firefighting Measures

Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or Carbon Dioxide.

Hazards Arising: No Data Available

Advice for Firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

Info for Firefighting: Gives off Hydrogen by reaction with metals.

Accidental Release Measures

Personal Precautions: Wear respiratory protection.

Avoid dust formation.

Avoid breathing vapours, mist or gas.

Ensure adequate ventilation.

Evacuate personnel to safe areas.

Avoid breathing dust.

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.

Method for Containment: Pick up and arrange disposal without creating dust.

Sweep up and shovel.

Keep in suitable, closed containers for disposal.

Handling and Storage

Personal Precautions: Avoid contact with skin and eyes.

Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

Environmental Precautions: Store in cool place.

Keep container tightly closed in a dry and well-ventilated place.

Absorbs Carbon Dioxide from air.

Air sensitive.

Strongly hygroscopic

Exposure Controls | Personal Protection

Derived No Effect Level (DNEL)

Workers | Application Area | Exposure Routes | Health Effect | Value

Workers - Inhalation - Long-term local effects - 1 mg/m³

Consumers | Application Area | Exposure Routes | Health Effect | Value

Consumers - Inhalation - Long-term local effects - 1 mg/m³

Predicted No Effect Concentration (PNEC)

No Data Available

Engineering Controls: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Eye/Face Protection: Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin Protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact - Material: Nitrile rubber. Minimum layer thickness: 0,11 mm

Break through time: 480 min. Material tested: Dermatril®

Splash contact - Material: Nitrile rubber. Minimum layer thickness: 0,11 mm

Break through time: 480 min. Material tested: Dermatril®

Data source: KCL GmbH, D-36124. Test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

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.

Respiratory Protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Physical and Chemical Properties

Appearance: White or slightly Yellow lumps, pellets or flakes

Odour: No Data Available

Odour Threshold: No Data Available

pH: 13,5

Melting Point: Melting point/range: 361 °C - lit.

Boiling Point: 1.320 °C

Flash Point: No Data Available

Evaporation: No Data Available

Flammability: No Data Available

Upper/Lower Flammability or Explosive Limits: No Data Available

Vapour pressure: 1 hPa at 719 °C, 1 hPa at 714 °C

Vapour density: No Data Available

Relative density: 2,044 g/cm³

Water solubility: 1.120 g/l - soluble

Partition Coefficient: No Data Available

Auto-ignition Temperature: No Data Available

Decomposition Temperature: No Data Available

Viscosity: No Data Available

Explosive properties: No Data Available

Oxidizing properties: No Data Available

Other Safety Info: Bulk density 1.300 kg/m³

Stability and Reactivity

Reactivity: No Data Available

Chemical Stability: Heat of solution is very high, and with limited amounts of water, violent boiling may occur.

Stable under recommended storage conditions.

Possibility of hazardous reactions: No Data Available

Conditions to Avoid: Do not heat above melting point.

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 Nitromethane and other similar Nitro compounds causes 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

Other decomposition products - No data available

Toxicological Information

Acute Toxicity: LD50 Oral - Rat - 333 mg/kg

Skin Corrosion/Irritation: Skin - Rabbit

Result: Severe skin irritation - 24 h

Serious Eye damage | Eye Irritation: Eyes - Rabbit

Result: Corrosive to eyes

(OECD Test Guideline 405)

Cell Mutagenicity: In vitro mammalian cell gene mutation test
mouse lymphoma cells

Result: negative

Carcinogenicity: IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity: No Data Available

Specific Target Organ Toxicity - Single Exposure: No Data Available

Specific Target Organ Toxicity - Repeated Exposure: No Data Available

Aspiration Hazard: No Data Available

Ecological Information

Ecological Toxicity: Toxicity to fish:

LC50 - *Gambusia affinis* (Mosquito fish) - 80 mg/l - 96 h

Ecological Persistence and degradability: The methods for determining the biological degradability are not applicable to inorganic substances.

Bioaccumulative Potential: No Data Available

Mobility in Soil: No Data Available

Results of PBT and vPvB 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.

Other Adverse Effect: Harmful to aquatic life.

Disposal Considerations

Waste Treatment Methods: Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging - Dispose of as unused product.

Transport Information

UN Number: ADR/RID: 1813

IMDG: 1813

IATA: 1813

UN Shipping Hazard: ADR/RID: POTASSIUM HYDROXIDE, SOLID

IMDG: POTASSIUM HYDROXIDE, SOLID

IATA: Potassium hydroxide, solid

Transport Hazard Class: 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: No Data Available

Regulatory Information

Safety, Health and environmental regulations: This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Chemical Safety Assessment: A Chemical Safety Assessment has been carried out for this substance.

Additional Info: RTECS: TT2100000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Disclaimer

The information stated above is considered to be correct, but does not claim to be inclusive and shall only be used as a guideline. The information provided by this document is confirmed by our continuous updating of knowledge and adheres to the products appropriate safety precautions. It does not represent any guarantee of the product's properties. RLS Chemicals and its Associates shall not be held accountable for any damage's consequent of handling the above product.
