



Mining Chemicals SA

MCS CHEMICALS | 64 ILANA ROAD - GERMISTON - JHB | +27 67 064 2645 | MCS@MININGCHEM.CO.ZA | WWW.MININGCHEM.CO.ZA

Material Safety Data Sheets (MSDS)

CAUSTIC SODA FLAKES

Identification of Product

Chemical Code: CHE-S

Chemical Name: Sodium Hydroxide Flake

Chemical Grade: Technical

Chemical Formula: NaOH

Chemical Weight: 40,00 g/mol

CAS No: 1310-73-2

Chemical Synonyms: Sodium hydroxide flakes

Hazards Identification

REACH No: 01-2119457892-27-XXXX

Signal Word: Danger

Supplemental Hazard Information:

Additional Hazard Information: No Data Available



Hazards statements

H290 - May be corrosive to metals.

H314 - Causes severe skin burns and eye damage.

Precautionary statements

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

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

P310 - Immediately call a POISON CENTER or doctor/ physician.

Composition of Chemical

Chemical Formula: NaOH

EC No 1272/2008: 01-2119457892-27-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: Sodium Oxides

Advice for Firefighters: Wear self contained breathing apparatus for fire fighting if necessary.

Info for Firefighting: No Data Available

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 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.

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 fused deliquescent flakes

Odour: Odourless

Odour Threshold: No Data Available

pH: 14 at 50 g/l at 20 °C

Melting Point: Melting point/range: 318 °C

Boiling Point: 1.390 °C

Flash Point: Not Applicable

Evaporation: No Data Available

Flammability: No Data Available

Upper/Lower Flammability or Explosive Limits: No Data Available

Vapour pressure: < 24,00 hPa at 20 °C

4,00 hPa at 37 °C

Vapour density: 1,38 - (Air = 1.0)

Relative density: 2,1300 g/cm³

Water solubility: ca.1.260 g/l at 20 °C

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 - ca.1.150 kg/m³.

Relative vapour density - 1,38 - (Air = 1.0)

Stability and Reactivity

Reactivity: No Data Available

Chemical Stability: Stable under recommended storage conditions.

Possibility of hazardous reactions: No Data Available

Conditions to Avoid: No Data Available

Incompatible Materials: Strong Oxidizing Agents, Strong Acids, Organic Materials

Hazardous Decomposition Products: Other decomposition products - No Data Available

Toxicological Information

Acute Toxicity: No Data Available

Skin Corrosion/Irritation: Rabbit

Result: Causes severe burns. - 24 h

Serious Eye damage | Eye Irritation: Rabbit

Result: Corrosive - 24 h

Cell Mutagenicity: No Data Available

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) - 125 mg/l - 96 h

LC50 - *Oncorhynchus mykiss* (rainbow trout) - 45,4 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates:

Immobilization EC50 - *Daphnia* - 40,38 mg/l - 48 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: PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

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: 1823

IMDG: 1823

IATA: 1823

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

IMDG: SODIUM HYDROXIDE, SOLID

IATA: Sodium 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: WB4900000

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

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.
