



MATERIAL SAFETY DATA SHEET

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CAUSTIC SODA / SODIUM HYDROXIDE

SECTION I: IDENTIFICATION OF PRODUCT

Product Name: CAUSTIC SODA
Chemical Family: Inorganic sodium salt
WHMIS Classification: E
Workplace Hazard: Corrosive Solid
Product Use: Alkalinity control

Proper Shipping name: Sodium hydroxide, solid
TDG Classification: 8
Packaging Group: II
PIN: UN1823

SECTION II: HAZARDOUS INGREDIENTS

Ingredients	Percent	CAS Number	LD ₅₀ (Rat/Oral)	LC ₅₀ (Species/Route)
Sodium Hydroxide	95-99	1310-73-2	No information	No information

SECTION III: TOXICOLOGICAL PROPERTIES

Route of entry: Skin Eye Contact Inhalation Ingestion

Effects of acute exposure:

- **Eye Contact:** Corrosive! May cause severe damage including burns and blindness. Severity of effects depends on concentration and how soon after exposure the eyes are washed.
- **Skin Contact:** Corrosive! May cause severe burns and tissue destruction. There may be a delay between the time of exposure and the onset of irritation depending on the concentration of the product. Prolonged or repeated contact, even to dilute solutions, can cause a high degree of tissue destruction.
- **Ingestion:** Corrosive! May cause severe burns and complete tissue perforation of mucous membranes of mouth, throat and stomach.
- **Inhalation:** Exposure to powder, vapor, mist or liquid can produce burns of the respiratory tract. Severe exposures could result in pulmonary edema.

Effects of chronic exposure: Not applicable

Exposure limits: ACGIH TLV 2mg/m³ ceiling

Irritancy of product: Possibly severe.

Sensitization to product: No information available

Carcinogenicity: No information available

Reproductive toxicity: No information available

Teratogenicity: No information available

Mutagenicity: No information available

Name of toxicological synergistic products: No information available



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SECTION IV: FIRST AID MEASURES

Skin contact: Immediately flush eyes with running water for at least 60 minutes. Hold eyelids apart to ensure thorough flushing. Flushing within seconds of contact is essential to achieve maximum effectiveness. Continue flushing until irritation or burning ceases, and then obtain medical attention.

Eye contact: Flush thoroughly with water while removing contaminated clothing and footwear. Discard non-rubber shoes. Discard contaminated leather articles (belts, watchbands, etc). Wash clothing before reuse. Obtain medical attention.

Inhalation: Move to area free from contaminant. Apply oxygen or artificial respiration if required. Obtain medical attention.

Ingestion: Do not induce vomiting. If conscious rinse out mouth and give 1 to 2 glasses of water to drink. If vomiting occurs keep head below hips to prevent aspiration and then give water. Repeat drinks of water every 10 minutes. Obtain immediate medical attention. Never give anything by mouth unless victim is fully conscious.

SECTION V: PHYSICAL DATA

Physical state: Solid.

Appearance and odour: White solid or bead; odourless

Odour threshold: Not available

Specific gravity: 2.13

Vapor pressure (mmHG): Not applicable

Vapor density (Air=1): Not applicable

Evaporation rate: Not applicable

Boiling point (°C): 1390

Freeze/Melting point (°C): 318

pH: 13 (1% solution)

Solubility: Completely soluble in Water



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SECTION VI: FIRE AND EXPLOSION DATA

Conditions of flammability: Contact with water can cause violent exothermic reaction.

Means of extinguishing: Do not use water. Use media suitable for packaging and surrounding materials.

Flash point: Not flammable

Upper flammable limit: Not applicable

Lower flammable limit: Not applicable

Auto-ignition temperature: Not applicable

Hazardous combustion products: Not applicable

Explosion data-sensitivity to mechanical impact: Not sensitive

Explosion data-sensitivity to static discharge: Not sensitive

SECTION VII: REACTIVITY DATA

Chemically unstable (conditions): Stable

Product incompatible with: Strong acids; may react violently. Water; may generate sufficient heat to ignite combustibles. May react with organic halogen compounds, nitro and chloro organic compounds, and reducing sugars and whey solids.

Conditions of reactivity: Avoid contact with water.

Hazardous decomposition products: Carbon Monoxide



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SECTION VIII: PREVENTATIVE MEASURES

Personal protective equipment:

- **Respiratory Protection:** Approved dust masks required for dust levels below TLV. Use approved respirators with dust cartridges, or SCBA, if airborne concentration exceeds TLV.
- **Protective Gloves:** Rubber, neoprene or vinyl recommended.
- **Eye Protection:** Chemical goggles with full face-shield recommended. Do not wear contact lenses.
- **Other Protective Equipment:** As required to prevent contact. Ensure eyewash station and emergency shower are available.

Specific engineering controls: Use local exhaust ventilation, process enclosure or other engineering controls to maintain concentration of airborne dust below TLV.

Procedures for leak/spills: Use appropriate safety equipment. Evacuate unnecessary personnel. Collect dry material by shoveling, liquid material can be removed with a vacuum truck. Collect uncontaminated material for repackaging. Collect contaminated material in an approved container for disposal. Flush spill area thoroughly with water.

Waste disposal: Dispose in accordance with federal, provincial and local regulations. It is the responsibility of the end-user to determine if material meets the criteria of hazardous waste at the time of disposal. Empty packaging contains residual hazardous material and must be disposed of according to local regulations.

Handling procedures and equipment: Wear personal protective equipment. Wash thoroughly after handling. Discard non-rubber shoes. Discard contaminated leather articles (belts, watchbands, etc). Wash clothing before reuse. Avoid contact with skin and eyes. Avoid ingestion. When mixing with water add product slowly, with constant stirring, to water. Ensure temperature of water does not exceed 95°C to prevent boiling.

Storage requirements: Store in a cool, well-ventilated area away from incompatibles. Keep container tightly closed and properly labeled. Empty packages contain residual hazardous material and must be handled with the same care and attention as is full.

Special shipping information: Proper Shipping Name: Sodium hydroxide, solid

SECTION IX: PREPARATION

Date updated: August 7, 2008

Prepared by: Product Safety Committee

All the recommendations and suggestions herein concerning this product are based upon tests and data believed to be reliable, however it is the user's responsibility to determine the safety, toxicity and sustainability for their own use of the product described herein. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by Q'Max Solutions Inc. as to the effects of such use, the results to be obtained, or the safety and toxicity of the product nor does Q'Max Solutions Inc. assume any liability arising out of use by others. Nor is the information herein to be considered as absolutely complete since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations.