Suite 450
One North Shore Center
12 Federal Street
Pittsburgh, PA 15212

Safety Data Sheet

Caustic Soda 50%

1. IDENTIFICATION

Product name Caustic Soda 50%

Description Caustic soda solution

Product class Specialty

Supplier address
Suite 450
One North Shore Center
12 Federal Street
Pittsburgh, PA 15212

Telephone numbers

Company Phone Number (412) 321-9800

Emergency Telephone CHEMTREC 800-424-9300

2. HAZARDS IDENTIFICATION

Hazard classification
Corrosive to Metals, Category 1
Acute Toxicity: Oral, Category 4
Skin Corrosion, Category 1
Serious Eye Damage, Category 1
Aquatic Environment Toxicity: Acute, Category 3

Signal word Danger

Hazard statements
May be corrosive to metals.
Harmful if swallowed.
Causes severe skin burns and eye damage.
Causes serious eye damage.
Harmful to aquatic life.

Pictograms of related hazards



Precautionary statements

Prevention

Keep only in original packaging.
Wash skin thoroughly after handling.
Do not eat, drink, or smoke when using this product.
Wear protective gloves, protective clothing, eye protection, and face protection.
Avoid release to the environment.

Response

Absorb spillage to prevent material damage.
Wash contaminated clothing before reuse.

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Immediately contact a POISON CENTER or health care provider.
IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water or emergency shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately contact a POISON CENTER or health care provider.

Storage

Store in a corrosive-resistant container or container with a resistant inner liner.
Store locked up.

Disposal

Dispose of contents and container in accordance with local, state, and federal regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS #	Weight %
Sodium hydroxide	1310-73-2	40–50
Non-hazardous substances	Proprietary	>50

4. FIRST-AID MEASURES

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally to ensure complete rinsing. Remove contact lenses if present and easy to do, then resume rinsing. Get medical attention immediately.

Skin contact Immediately remove all contaminated clothing. Rinse with copious amounts of water; use an emergency shower if available. Wash contaminated clothing before reuse.

Ingestion If swallowed, DO NOT induce vomiting. Rinse mouth and get emergency medical attention. Do not give anything by mouth unless instructed to do so by a poison center or health care provider.

Inhalation If inhaled, move victim to fresh air. Seek emergency medical attention if breathing is difficult; perform artificial respiration if breathing stops.

Note to health care provider Esophageal corrosion may contraindicate the use of gastric lavage and/or activated charcoal.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media Use extinguishing media appropriate for the surrounding fire.

Unsuitable extinguishing media No information available

Protective equipment and precautions for firefighters Stay upwind of the fire. Full protective equipment including self-contained breathing apparatus should be used. Use water to cool closed containers. Contain water runoff if possible.

Specific hazards Reaction with metals may evolve highly flammable hydrogen gas. Combustion may produce toxic gases.

Hazardous combustion products Sodium oxides

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Evacuate the area of all non-essential personnel. Do not touch spilled material without proper protective equipment. Ventilate the area and mitigate further release if it is safe to do so. Avoid contact with eyes.

Methods for clean-up

Small spills: Contain spill and soak up with an inert absorbent material and place residues in a properly labeled container for disposal. Avoid discharge into sewer or surface water.

Large spills: Contain spill using trenches, diking, or absorption with an inert material (i.e. sand or earth). Reclaim spilled material into recovery or salvage drums or tank truck for proper disposal.

7. HANDLING AND STORAGE

Advice on safe handling Avoid contact with eyes, skin, and clothing. Avoid breathing vapor or mist. Wash hands thoroughly after handling.

Storage conditions Store in a cool, dry, well-ventilated area away from incompatible materials. Keep containers closed when not in use.

Suitable materials of construction Corrosion-resistant container; original container only is recommended.

Unsuitable materials of construction Metals

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye/face protection Chemical splash goggles, face shield

Skin protection Chemical-resistant gloves and body-covering clothing

Respiratory protection Observe published airborne exposure limits. NIOSH approved respirator should be used in accordance with OSHA respiratory protection requirements (29 CFR 1910.134).

Engineering controls Adequate ventilation, eye-wash station, and emergency shower

General hygiene considerations Do not eat, drink, or smoke while handling this product.

Chemical Name	OSHA PEL	ACGIH TLV
Sodium hydroxide	Ceiling: 2 mg/m³	Ceiling: 2 mg/m³
Non-hazardous substances	None established	None established

9. PHYSICAL AND CHEMICAL PROPERTIES

pH	>13.5
Appearance	Clear colorless solution
Odor	No odor
Odor Threshold	No information available
Melting/freezing point	No information available
Initial boiling point/boiling range	No information available
Flash point	No information available
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Upper/lower flammability or explosive limits	No information available
Vapor pressure	No information available
Vapor density	No information available
VOC content	No information available
Specific gravity	1.52-1.56
Solubility	Complete
Partition coefficient n-octanol/water	No information available
Auto-ignition temperature	No information available
Decomposition temperature	No information available
Viscosity	No information available

10. STABILITY AND REACTIVITY

Chemical stability Stable under normal conditions of storage and handling.

Hazardous polymerization Polymerization will not occur.

Conditions to avoid Extreme temperatures, incompatibilities.

Incompatibilities Strong acids, oxidizers

Hazardous decomposition products No information available

11. TOXICOLOGICAL INFORMATION

Likely routes of exposure Skin, eyes, ingestion

Acute toxicity

Sodium hydroxide

Parameter	Result
LD_{50}, Oral (rat)	140-340 mg/kg
LD_{50}, Dermal (rabbit)	1,350 mg/kg

Acute symptoms and effects

Eye Eye irritation with or without pain, burning, itching, redness, discharge, and serious eye damage.

Skin	Skin irritation with or without pain, burning, itching, redness, and swelling. Symptoms may be exacerbated by open wounds, excoriations, rashes, or other skin breaches.
Ingestion	Gastrointestinal distress with or without nausea, vomiting, and diarrhea. May cause irritation or corrosion of the oral and esophageal mucosa.
Inhalation	Upper respiratory irritation with or without cough, watering of the eyes, and postnasal drip. Aspiration of liquid or vomit may cause severe respiratory distress, airway corrosion, and acute lung damage.
Reproductive effects	No information available
Teratogenicity	No information available
Mutagenicity	No information available
Embryotoxicity	No information available
Sensitization to product	No information available
Synergistic products	No information available
Carcinogenicity	No components have been identified as carcinogenic by OSHA, NTP, or IARC.
Chronic	No information available

12. ECOLOGICAL INFORMATION

Aquatic toxicity

Sodium hydroxide

Parameter	Result
96 hr LC_{50}, Bluegill sunfish	43 mg/L
96 hr LC_{50}, Rainbow trout	260 mg/L

Persistence	No information available
Bioaccumulative potential	No information available
Mobility	No information available

13. DISPOSAL CONSIDERATIONS

Disposal	Dispose of in accordance with federal, state, and local regulations.
RCRA status	Discarded product, as sold, would not be considered a RCRA Hazardous Waste.

14. TRANSPORT INFORMATION

US Department of Transportation (DOT)

UN Number	UN1824
Proper shipping name	Sodium hydroxide solution
Primary hazard class/division	8
Secondary hazard	None
Packing group	II
Label	

15. REGULATORY INFORMATION

OSHA Hazard Communication Status
Corrosive to Metals, Category 1
Acute Toxicity: Oral, Category 4
Skin Corrosion, Category 1
Serious Eye Damage, Category 1
Aquatic Environment Toxicity: Acute, Category 3

EPA Registration Number Not applicable

TSCA The ingredients of this product are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

CERCLA

EPA Hazardous Substances (40 CFR 302)

Chemical Name	Reportable Quantity (RQ)
Sodium hydroxide	1,000 lb
Non-hazardous substances	None
Product (Notify the EPA of spills exceeding this amount.)	2,000 lb

SARA Title III (Sections 302, 311, 312, and 313)

Section 302 Extremely Hazardous Substances (40 CFR 355)

Chemical Name	CAS#	RQ	TPQ
None			

Section 311 and 312 Health and Physical Hazards

Immediate	Delayed	Fire	Pressure	Reactivity
Yes	No	No	No	No

Section 313 Toxic Chemicals (40 CFR 372)

Chemical Name	CAS Number	Percent by Weight
None		

16. OTHER INFORMATION

HMIS Ratings Health—3; Flammability—0; Reactivity—1

NFPA Ratings Health—3; Flammability—0; Reactivity—1

HMIS/NFPA Rating Scale Minimal—0; Slight—1; Moderate—2; Serious—3; Severe—4

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