

Sodium Hydroxide, NF/FCC/EP Grade + Endotoxin

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Sodium Hydroxide, NF/FCC/EP Grade + Endotoxin

Synonyms/Generic Names: Caustic Soda

Product Number: 5116

Product Use: Industrial, Manufacturing or Laboratory use

Manufacturer: Columbus Chemical Industries, Inc.
N4335 Temkin Rd.
Columbus, WI. 53925

For More Information: 920-623-2140 (Monday-Friday 8:00-4:30)
www.columbuschemical.com

In Case of Emergency Call: CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

Hazards Not Otherwise Classified (HNOC): Corrosive to the respiratory tract.

Signal Word: Danger

Pictograms:



GHS Classification:

Corrosive to Metal	Category 1
Skin corrosion	Category 1A
Serious eye damage	Category 1
Acute aquatic toxicity	Category 3

GHS Label Elements, including precautionary statements:

Hazard Statements:

H290	May be corrosive to metals
H314	Causes severe skin burns and eye damage.
H402	Harmful to aquatic life.

Precautionary Statements:

P234	Keep only in original container.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

P301+P330+P331	IF SWALLOWED: Rinse mouth. Do not induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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/doctor/physician.
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.
P404+P405	Store in a closed container. Store locked up.
P501	Dispose of contents/container in accordance with local regulations.

Potential Health Effects

Eyes	Causes serious eye damage. Causes permanent damage to the cornea, iris, or conjunctiva. Can cause blindness.
Inhalation	Harmful if inhaled. Corrosive to the respiratory tract.
Skin	Causes severe skin burns.
Ingestion	Ingestion is likely to be harmful or have adverse effects. May cause burns or irritation of the lining of the mouth, throat, and gastrointestinal tract.

NFPA Ratings

Health	3
Flammability	0
Reactivity	1
Specific hazard	Not Available

HMIS Ratings

Health	3
Fire	0
Reactivity	1

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Sodium Hydroxide	80 - 100	1310-73-2	215-185-5	NaOH	40.00 g/mol
Sodium Carbonate	0.1 – 5	497-19-8	809-924-6	Na ₂ CO ₃	105.98 g/mol
Water	Balance	7732-18-5	231-79-2	H ₂ O	18.01 g/mol

4. FIRST-AID MEASURES

Eyes	Rinse with plenty of water for at least 60 minutes and seek medical attention immediately.
Inhalation	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.
Skin	Immediately flush with plenty of water for at least 60 minutes while removing contaminated clothing and wash using soap. Get medical attention immediately.
Ingestion	Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention immediately.
General Advice	Get medical advice / attention if you feel unwell. Show the safety data sheet to the doctor.

5. FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media	Dry powder, alcohol-resistant foam, water in large amounts, carbon dioxide. Do not use a heavy water stream. Use of heavy stream of water may spread fire.
Special protective equipment and precautions for firefighters	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots. Use water spray of fog for cooling exposed container.
Specific hazards arising from the chemical	Not flammable. May release flammable hydrogen gas on contact with some metals. Emits toxic fumes (sodium oxides) under fire conditions. Reacts exothermically with (some) acids. Reacts violently with water. (See also Stability and Reactivity section).

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Do not handle until all safety precautions have been read and understood. Do not get in eyes, on skin, or on clothing. Do not breathe dust. See section 8 for recommendations on the use of personal protective equipment. Remove the employees that are not involved from the spill area and call the emergency team.
Environmental precautions	Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Sweep up and place in suitable, closed containers for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Do not handle until all safety precautions have been read and understood. Do not get in eyes, on skin, or on clothing. Do not breathe dust. Wash contaminated clothing before reuse. See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Store locked up. Avoid formation of dusts.

Conditions for safe storage, including any incompatibilities

Store in cool, dry well-ventilated area. Keep only in original container. Store locked up. Absorb spillage to prevent material damage. Keep away from incompatible materials (see section 10 for incompatibilities).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls:

Component	Exposure Limits	Basis	Entity
Sodium Hydroxide	2 mg/m ³	CEIL	ACGIH® TLVs®
	2 mg/m ³	TWA	OSHA PELs
	2 mg/m ³	CEIL	NIOSH RELs

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit
 STEL: Short Term Exposure Limit during x minutes.
 IDLH: Immediately Dangerous to Life or Health
 WEEL: Workplace Environmental Exposure Levels
 CEIL: Ceiling

Personal Protection

Eyes	Wear chemical safety glasses or goggles.
Inhalation	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
Skin	Wear nitrile or rubber gloves, apron or lab coat.
Other	Handle in accordance with good industrial hygiene and safety practices.

Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Opaque white solid
Odor	None
Odor threshold	Not Available
pH	13.5 (0.1M Solution)
Melting point/freezing point	360°C (680°F)
Initial boiling point and boiling range	1320°C (2408°F)
Flash point	Not Flammable
Evaporation rate	Not Available
Flammability (solid, gas)	Not Flammable
Upper/lower flammability or explosive limit	Not Explosive
Vapor pressure	Not Available
Vapor density	Not Available
Density	2.044
Solubility (ies)	Easily soluble in cold water.
Partition coefficient: n-octanol/water	Not Available
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available

10. STABILITY AND REACTIVITY

Chemical Stability	Stable
Possibility of Hazardous Reactions	Will not occur.
Conditions to Avoid	Extremely high or low temperatures and incompatible materials.
Incompatible Materials	Metals, oxidizing agents, water, acids, aluminum, light metals and their alloys.
Hazardous Decomposition Products	None expected under normal conditions of use.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Sodium Hydroxide

Skin	Not Available
Eyes	Not Available
Respiratory	Not Available

Ingestion	Not Available
------------------	---------------

Sodium Carbonate

Skin	Not Available
Eyes	Not Available
Respiratory	LC50 - Inhalation – Rat – 2300 mg/m ³ -2h
Ingestion	LD50 – Oral – Rat – 4090 mg/kg

Carcinogenicity

IARC	No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Signs & Symptoms of Exposure

Skin	Irritation, redness, itchiness, burns.
Eyes	Burns, irritation, redness, watering eyes, itchiness. Causes permanent damage to the cornea, iris, or conjunctive. Can cause blindness.
Respiratory	Burns, irritation, inhalation may cause immediate severe irritation progressing quickly to chemical burns.
Ingestion	Burns, irritation. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract.

Chronic Toxicity	None expected under normal conditions of use.
Teratogenicity	Not Classified
Mutagenicity	Not Available
Embryotoxicity	Not Available
Specific Target Organ Toxicity	Not Available
Reproductive Toxicity	Not Classified
Respiratory/Skin Sensitization	Not Available

12. ECOLOGICAL INFORMATION

Ecotoxicity*Sodium Hydroxide*

Aquatic Vertebrate	LC50 – Oncorhynchus mykiss (rainbow trout) – 45.4 mg/l - 96 h
Aquatic Invertebrate	EC50 - Daphnia - 40 mg/l
Terrestrial	Not Available

Disodium carbonate

Aquatic Vertebrate	LC50 – Lepomis macrochirus (Mosquito fish) - 300 mg/l - 96 h
Aquatic Invertebrate	EC50 – Daphnia magna - 265 mg/l - 48 h
Terrestrial	Not Available

Persistence and Degradability	Not Available
Bioaccumulative Potential	Not Available
Mobility in Soil	Not Available
PBT and vPvB Assessment	Not Available
Other Adverse Effects	Harmful to aquatic life.

13. DISPOSAL CONSIDERATIONS

Waste Residues	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container or residue.
Product Containers	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORTATION INFORMATION

US DOT	UN1823, Sodium hydroxide, solid, 8, pg II
TDG	UN1823, SODIUM HYDROXIDE, SOLID, 8, PG II
IMDG	UN1823, SODIUM HYDROXIDE, SOLID, 8, PG II
Marine Pollutant	No
IATA/ICAO	UN1823, Sodium hydroxide, solid, 8, pg II

15. REGULATORY INFORMATION

TSCA Inventory Status	All ingredients are listed on the TSCA Active inventory.
DSL / NDSL	All ingredients are listed on the DSL inventory.
California Proposition 65	Not Listed
Rhode Island: Hazardous Substance List	Listed: Sodium Hydroxide
Massachusetts: Toxic or Hazardous Substance List, Right to Know	Listed: Sodium Hydroxide
Pennsylvania: Hazardous Substance List	Listed: Sodium Hydroxide
New Jersey: Right to Know Hazardous Substance List	Listed: Sodium Hydroxide
SARA 302	Not Listed
SARA 304	Not Listed
SARA 311	Physical Hazard, Acute Health Hazard.
SARA 312	Physical Hazard, Acute Health Hazard.
SARA 313	Not Listed
WHMIS Canada	Class E: Corrosive material.

16. OTHER INFORMATION

Revision	Date
Original	08/18/2022

Disclaimer: The information provided in this Safety Data Sheet ("SDS") is correct to the best of our knowledge, information, and belief at the date of publication. The information in this SDS relates only to the specific Product identified under Section 1, and does not relate to its use in combination with other materials or products, or its use as to any particular process. Those handling, storing, or using the Product should satisfy themselves that they have current information regarding the particular way the Product is handled, stored or used and that the same is done in accordance with federal, state and local law. WE DO NOT MAKE ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING (WITHOUT LIMITATION) WARRANTIES WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN OR WITH RESPECT TO FITNESS FOR ANY PARTICULAR USE. WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, INJURY, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT.