

SDS DATE: 03/15/2015 ORIGINAL: 03/15/2015

SAFETY DATA SHEET

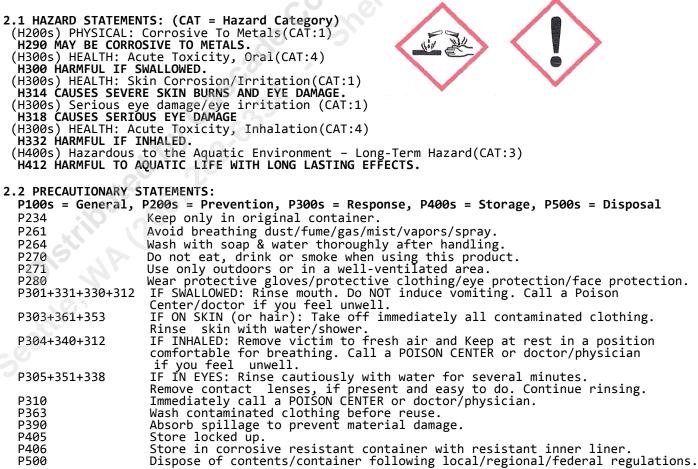
This Safety Data Sheet conforms to ANSI Z400.5, and to the format requirements and the International Chemical Safety Cards of the Global Harmonizing System. THIS SDS COMPLIES WITH 29 CFR 1910.1200 (HAZARD COMMUNICATION STANDARD) IMPORTANT: Read this SDS before handling & disposing of this product. Pass this information on to employees, customers, & users of this product.

SECTION 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

PRODUCT IDENTITY:	CAUSTIC SODA (Technical Grade) 25%
SYNONYMS:	Sodium Hydroxide, Alkali, Lye, Soda Lye, Sodium Hydrate
	Glass production, cleaner, process cleaner,
	petroleum industry, food processing.

COMPANY IDENTITY:	Cascade Columbia Distribut	ion Company
COMPANY ADDRESS:	6900 Fox Avenue S.	
COMPANY CITY:	Seattle, WA 98108	
COMPANY PHONE:		
EMERGENCY PHONES:	CHEMTREC: 1-800-424-9300 (USA)
	CANUTEC: 1-611-996-6666 (CANÁDA)

SECTION 2. HAZARDS IDENTIFICATION DANGER!!



COMPANY IDENTITY:Cascade Columbia Distribution CompanySDS DATE: 03/15/2015PRODUCT IDENTITY:CAUSTIC SODA (Technical Grade) 25%ORIGINAL: 03/15/2015SDS NUMBER:Na0H25-50ORIGINAL: 03/15/2015

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MATERIAL	CAS#	EINECS#	WT %	
Water	7732-18-5	231-791-2	75	
Sodium Hydroxide	1310-73-2	215-185-5	25	

The specific chemical component identities and/or the exact component percentages of this material may be withheld as trade secrets. This information is made available to health professionals, employees, and designated representatives in accordance with the applicable provisions of 29 CFR 1910.1200 (I)(1).

TRACE COMPONENTS: Trace ingredients (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, reproductive toxins, respiratory tract mutagens, and sensitizers). None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents, and Canadian Hazardous Materials Identification System Standard (CPR 4). SEE SECTIONS 8, 11 & 12 FOR TOXICOLOGICAL INFORMATION.

SECTION 4. FIRST AID MEASURES

4.1 GENERAL ADVICE:

First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists, refer to Section 8 for specific personal protective equipment.

4.2 EYE CONTACT:

Immediately flush eyes while under gently running water. Use sufficient force to open eyelids. "Roll" eyes to expose more surface. <u>Minimum</u> flushing is for 15 minutes. Seek medical attention immediately.

4.3 SKIN CONTACT:

Immediately begin decontamination with running water. <u>Minimum</u> flushing is for 15 minutes. Remove contaminated clothing, taking care not to contaminate eyes. If skin becomes irritated and irritation persists, medical attention may be necessary. Seek medical attention immediately. Wash contaminated clothing before reuse, discard contaminated shoes.

4.4 INHALATION:

Remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, trained personnel should immediately provide artificial respiration. DO NOT use mouth-to-mouth method if victim inhaled substance. Induce artificial respiration with aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If the heart has stopped, trained personnel should immediately begin cardiopulmonary resuscitation (CPR). Seek immediate medical attention.

4.5 SWALLOWING:

If swallowed, CALL PHYSICIAN POISON CONTROL CENTER IMMEDIATELY. If professional advice is not available, give two glasses of water to drink. DO NOT INDUCE VOMITING. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth resuscitation (see 4.4). Never give liquids to someone who is unconscious, having convulsions, or unable to swallow. Seek immediate medical attention.

4.6 NOTES TO PHYSICIAN:

There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. Any material aspirated during vomiting may cause lung injury. Therefore, emesis should not be induced mechanically or pharmacologically. If it is considered necessary to evacuate the stomach contents, this should be done by means least likely to cause aspiration (such as: Gastric lavage after endotracheal intubation).

Symptoms may be delayed. Victims of chemical exposure must be taken for medical attention. Take a copy of label and SDS to physician or health professional with victim.

SDS DATE: 03/15/2015 ORIGINAL: 03/15/2015

SECTION 5. FIRE FIGHTING MEASURES

5.1 FIRE & EXPLOSION PREVENTIVE MEASURES Isolate from acids, oxidizers, extreme heat and open flame.

5.2 EXTINGUISHING MEDIA Use water fog, foam, dry chemical powder, carbon dioxide. Use extinguishing agent suitable to the surrounding fire. Do you use halogenated extinguishing agents.

5.3 SPECIAL FIRE FIGHTING PROCEDURES Cool closed containers. Use fog nozzles if water is used. Do not enter confined fire-space without full bunker gear. (Helmet with face shield, bunker coats, gloves & rubber boots). Wear Self-Contained Breathing Apparatus. No skin surface should be exposed.

5.4 UNUSUAL EXPLOSION AND FIRE PROCEDURES Closed containers may burst if exposed to extreme heat. Applying to hot surfaces requires special precautions. May decompose upon heating to produce corrosive and/or toxic fumes. Contact with metal may release flammable hydrogen gas.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PROTECTIVE MEASURES: Keep unprotected personnel away. Use complete chemical protective suit with self-contained breathing apparatus.

6.2 ENVIRONMENTAL PRECAUTIONS: Keep from entering storm sewers and ditches which lead to waterways.

6.3 CONTAINMENT AND CLEAN-UP MEASURES: Stop spill at source. Dike and contain. Sweep spilled material into dry, sealable containers. Wash away remainder with plenty of water. Clean surface thoroughly to remove residual contamination. This material is alkaline and may raise the pH of surface waters with low buffering capacity. Releases should be reported, if required, to appropriate agencies.

SECTION 7. HANDLING AND STORAGE

7.1 HANDLING

Use caution when combining with water. DO NOT add water to caustic. ALWAYS add caustic to water while stirring to minimize heat generation.

Put on appropriate personal protective equipment (See Section 8). Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, smoking and using the toilet facilities. Do not breathe vapor or mist. Do not swallow. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Do not reuse container. Isolate from oxidizers, heat, & open flame. Wear goggles, face shield, gloves, apron & footwear impervious to material. Wash clothing before reuse.

7.2 STORAGE

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (See Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not allow to freeze. Compatible storage materials ma include, but not be limited to, the following: nickel and nickel alloys, steel, plastics, plastic or rubber-lined steel, FRP, or Derakane vinyl ester resin. Use appropriate containment to avoid environmental contamination.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

MATERIAL Water Sodium Hydroxide	7732-1		ECS# TWA 291-2 None .81-3 None	Known	TLV (AC None Kn None Kn	own
MATERIAL	CAS#	EINECS#	CEILING	STEL(OSHA		HAP
Sodium Hydroxide	1310-58-3	215-181-3	2 ppm	None k		No

This product contains no EPA Hazardous Air Pollutants (HAP) in amounts > 0.1%.

8.1 RESPIRATORY EXPOSURE CONTROLS

Maintain airborne contaminant concentrations below exposure limits given above. If respiratory protection is needed, use only protection authorized in 29 CFR 1910.134, European Standard EN 149, or applicable State regulations. If adequate ventilation is not available or there is potential for airborne exposure above the exposure limits, a respirator may be worn up to the respirator exposure limitations, check with respirator equipment manufacturer's recommendations/limitations. For a higher level of protection, use positive pressure supplied air respiration protection or Self-Contained Breathing Apparatus or if oxygen levels are below 19.5% or are unknown.

- 8.2 EMERGENCY OR PLANNED ENTRY INTO UNKNOWN CONCENTRATIONS OR IDLH CONDITIONS Positive pressure, full-face piece Self-Contained Breathing Apparatus; or positive pressure, full-face piece Self-Contained Breathing Apparatus with an auxilliary positive pressure Self-Contained Breathing Apparatus.
- 8.3 VENTILATION

LOCAL EXHAUST: Necessary MECHANICAL (GENERAL): Necessary SPECIAL: None OTHER: None Please refer to ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

8.4 EYE PROTECTION:

Splash goggles or safety glasses. Face-shields are recommended when the operation can generate splashes, sprays or mists.

8.5 HAND PROTECTION:

Use gloves chemically resistant to this material. Preferred examples: Butyl rubber, Chlorinated Polyethylene, Polyethylene, Ethyl vinyl alcohol laminate ("EVAL"), Polyvinyl alcohol ("PVA"). Examples of acceptable glove barrier materials include: Natural rubber ("latex"), Neoprene, Nitrile/butadiene rubber ("nitril") or ("NBR"), Polyvinyl chloride ("PVC") or "vinyl"), Viton. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/ specifications provided by the glove supplier.

8.6 BODY PROTECTION:

Use body protection appropriate for task. Cover-all, rubber aprons, or chemical protective clothing made from impervious materials are generally acceptable, depending on the task.

8.7 WORK & HYGIENIC PRACTICES:

Provide readily accessible eye wash stations & safety showers. Wash at end of each shift & before eating, smoking or using the toilet. Remove clothing that becomes contaminated. Destroy contaminated leather articles. Launder or discard contaminated clothing.

SDS DATE: 03/15/2015 ORIGINAL: 03/15/2015

SECTION 9. PHYSICAL & CHEMICAL PROPERTIES

APPEARANCE: Liquid, Water-White ODOR: None ODOR THRESHOLD: Not Available pH (Neutrality): 14.0 -12 C/10 F (25%), 10 C/53 F (50%) MELTING POINT/FREEZING POINT: 130-140 C / 266-284 F (50% concentration) BOILING RANGE (IBP, Dry Point): FLASH POINT (TEST METHOD): Not Applicable EVAPORATION RATE (n-Butyl Acetate=1): Not Applicable FLAMMABILITY CLASSIFICATION: Non-Combustible LOWER FLAMMABLE LIMIT IN AIR (% by vol): Not Applicable UPPER FLAMMABLE LIMIT IN AIR (% by vol): Not Available VAPOR PRESSURE (mm of Hg)@25 C (77 F) 23.76 (50% concentration) VAPOR DENSITY (air=1): 0.670 GRAVITY @ 68/68 F / 20/20 C: 1.26 (25%) 1.525 (50%) 1.27 (25%) 1.525 (50%) DENSITY: SPECIFIC GRAVITY (Water=1): 10.58 (25%) 12.74 (48%) POUNDS/GALLON: WATER SOLUBILITY: Complete PARTITION COEFFICIENT (n-Octane/Water): Not Available AUTO IGNITION TEMPERATURE: Not Applicable **DECOMPOSITION TEMPERATURE:** Not Available VOCs (>0.044 Lbs/Sq In) : 0.0 Vol% /0.0 g/L / 0.000 Lbs/Gal 0.0 Vol% /0.0 g/L / 0.000 Lbs/Gal TOTAL VOC'S (TVOC)*: NONEXEMPT VOC'S (CVOC)*: 0.0 Vol% /0.0 g/L / 0.000 Lbs/Gal HAZARDOUS AIR POLLUTANTS (HAPS): 0.0 Wt% /0.0 g/L / 0.000 Lbs/Gal NONEXEMPT VOC PARTIAL PRESSURE (mm of Hg @ 20 C) 0.0 VISCOSITY @ 20 C (ASTM D445): No * Using CARB (California Air Resources Board Rules). Not Available

SECTION 10. STABILITY & REACTIVITY

10.1 STABILITY Stable under normal conditions.

10.2 CONDITIONS TO AVOID

Reacts violently with strong acids. This product may react with oxidizing agents. Avoid mixing with water, acid, or incompatible materials which may cause splattering and release of large amounts of heat. Will react with some metals forming flammable hydrogen gas. Carbon monoxide gas may form upon contact with reducing sugars, food and beverage products in enclosed spaces.

10.3 MATERIALS TO AVOID Oxidizing agents, acids, phosphorous, aluminum, zinc, tin. Initiates or catalyzes violent polymerization of acetaldehyde, acrolein or acrylonitrile.

10.4 HAZARDOUS DECOMPOSITION PRODUCTS Sodium Oxide & Hydroxide from heating. Contact with metals (aluminum, zinc, tin) and sodium tetrahydroborate liberates hydrogen gas.

10.5 HAZARDOUS POLYMERIZATION Will not occur.

SDS DATE: 03/15/2015 ORIGINAL: 03/15/2015

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 ACUTE HAZARDS

11.1.0 TOXICITY:

When in solution, this material will affect all tissues with which it comes in contact. The severity of the tissue damage is a function of its concentration, the length of tissue contact time, and local tissue conditions. After exposure there may be a time delay before irritation and other effects occur. This material is a strong irritant and is corrosive to the skin, eyes, and mucous membranes. This material may cause severe burns and permanent damage to any tissue with which it comes into contact.

11.1.1 EYE & SKIN CONTACT:

Severe burns to skin, defatting, dermatitis. Severe burns to eyes, redness, tearing, blurred vision. Permanent eye damage including blindness could result.

11.1.2 INHALATION: Severe respiratory tract irritation may occur.

11.1.3 SWALLOWING: Harmful or fatal if swallowed.

11.2 SUBCHRONIC HAZARDS/CONDITIONS AGGRAVATED

CONDITIONS AGGRAVATED: None Known.

11.3 CHRONIC HAZARDS

11.3.1 CANCER, REPRODUCTIVE & OTHER CHRONIC HAZARDS: This product has no carcinogens listed by IARC, NTP, NIOSH, OSHA or ACGIH, as of this date, greater or equal to 0.1%.

11.3.2 TARGET ORGANS: May cause damage to target organs, based on animal data.

11.3.3 IRRITANCY OF PRODUCT: This product is irritating to contaminated tissue.

11.3.4 SENSITIZATION TO THE PRODUCT: No component of this product is known as a sensitizer.

11.3.5 MUTAGENICITY: No known reports of mutagenic effects in humans.

11.3.6 EMBRYOTOXICITY: No known reports of embryotoxic effects in humans.

11.3.7 TERATOGENICITY: No known reports of teratogenic effects in humans.

11.3.8 REPRODUCTIVE TOXICITY: No known reports of reproductive effects in humans.

A mutagen is a chemical which causes permanent changes to genetic material (DNA) such that the changes will propagate through generational lines. An embryotoxin is a chemical which causes damage to a developing embryo (such as: within the eight weeks of pregnancy in humans), but the damage does not propagate across generational lines. A teratogen is a chemical which causes damage to a developing fetus, but the damage does not propagate across generational lines. A reproductive toxin is any substance which interferes in any way with the reproductive process.

11.4 MAMMALIAN TOXICITY INFORMATION

SODIUM HYDROXIDE: Eye irritancy (monkey): Eye irritancy (rabbit): Eye irritancy (rabbit): 1%, 24 hours (severe) 500 ml, 24 hours (severe) 1% solution (severe) Eye irritancy (rabbit): 1 mg, 24 hours (severe) Cytogenic analysis system (grasshopper parenteral): 20 mg 40 mg/kg LD50 (interperoneal, mouse): LDLo (oral, rabbit): 500 mg/kg

SDS DATE: 03/15/2015 ORIGINAL: 03/15/2015

SECTION 12. ECOLOGICAL INFORMATION

12.1 ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

12.2 EFFECT OF MATERIAL ON PLANTS AND ANIMALS: This product may be harmful or fatal to plant and animal life if released into the environment. Refer to Section 11 (Toxicological Information) for further data on the effects of this product's components on test animals.

12.3 EFFECT OF MATERIAL ON AQUATIC LIFE: LC50 (Poecilia reticulata): 196 mg/L (96 hours)(Marine water)_

12.4 MOBILITY IN SOIL Mobility of this material has not been determined.

12.5 DEGRADABILITY This product is completely biodegradable.

12.6 ACCUMULATION Bioaccumulation of this product has not been determined.

SECTION 13. DISPOSAL CONSIDERATIONS

Processing, use or contamination may change the waste disposal requirements. Do not dispose of on land, in surface waters, or in storm drains. Waste should be recycled or disposed of in accordance with regulations. Large amounts should be collected for reuse or consigned to licensed hazardous waste haulers for disposal. Empty containers may contain residues. Follow all label warnings even after container is emptied. ALL DISPOSAL MUST BE IN ACCORDANCE WITH ALL FEDERAL, STATE, PROVINCIAL, AND LOCAL REGULATIONS. IF IN DOUBT, CONTACT PROPER AGENCIES. EPA CHARACTERISTIC: D002

SECTION 14. TRANSPORT INFORMATION

MARINE POLLUTANT: No DOT/TDG SHIP NAME: UN1824, Sodium hydroxide solution, 8, PG-II DRUM LABEL: (CORROSIVE) IATA / ICAO: UN1824, Sodium hydroxide solution, 8, PG-II IMO / IMDG: UN1824, Sodium hydroxide solution, 8, PG-II EMERGENCY RESPONSE GUIDEBOOK NUMBER: 154

SECTION 15. REGULATORY INFORMATION

15.1 EPA REGULATION: SARA SECTION 311/312 HAZARDS: Acute Health, Reactivity

All components of this product are on the TSCA list. This material contains no known products restricted under SARA Title III, Section 313 in amounts greater or equal to 1%.

SARA TITLE III INGREDIENTS	CAS#	EINECS#	WT%	(REG.SECTION)	RQ(LBS)
Sodium Hydroxide	1310-73-2	215-185-5	25-50	(311,312)	1000

SDS DATE: 03/15/2015 ORIGINAL: 03/15/2015

SECTION 15. REGULATORY INFORMATION (CONTINUED)

Any release equal to or exceeding the RQ must be reported to the National Response Center (800-424-8802) and appropriate state and local regulatory agencies as described in 40 CFR 302.6 and 40 CFR 355.40 respectively. Failure to report may result in substantial civil and criminal penalties. State & local regulations may be more restrictive than federal regulations.

15.2 STATE REGULATIONS:

CALIFORNIA SAFE DRINKING WATER & TOXIC ENFORCEMENT ACT (PROPOSITION 65): This product is not listed, but it may contain impurities/trace elements (in amounts of less than 0.1%) which are known to the State of California to cause cancer or reproductive toxicity under Proposition 65, State Drinking Water and Toxic Enforcement Act.

15.21 U.S. STATE REGULATED COM	PONENTS:	(HAZAR	DOUS	SUBSTANC	E LIST	S):		
COMPONENT	AK	ĊA	FL	IL	KS	MA	MI	MN
Sodium Hydroxide	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
COMPONENT	MO	NJ	ND	PA	RI	ТХ	WV	WI
Sodium Hydroxide	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOTE: Absence of a state from	this lis	st does	not	mean the	mater	ial is	not re	gulated.

15.3 INTERNATIONAL REGULATIONS

The identified components of this product are listed on the chemical inventories of the following countries: Australia (AICS), Canada (DSL or NDSL), China (IECSC), Europe (EINECS, ELINCS), Japan (METI/CSCL, MHLW/ISHL), South Korea (KECI), New Zealand (NZIOC), Philippines (PICCS), Switzerland (SWISS), Taiwan (NECSI), USA (TSCA).

15.4 CANADA: WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

D2B: Irritating to skin / eyes.

Corrosive Material. E:

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all information required by the CPR.

SECTION 16. OTHER INFORMATION

16.1 HAZARD RATINGS: HEALTH (NFPA): 3, HEALTH (HMIS): 3, FLAMMABILITY: 0, PHYSICAL HAZARD: 1 (Personal Protection Rating to be supplied by user based on use conditions.) This information is intended solely for the use of individuals trained in the NFPA & HMIS hazard rating systems.

16.2 EMPLOYEE TRAINING

See Section 2 for Risk & Safety Statements. Employees should be made aware of all hazards of this material (as stated in this SDS) before handling it.

16.3 SDS DATE: 03/15/2015

NOTICE

The supplier disclaims all expressed or implied warranties of merchantability or fitness for a specific use, with respect to the product or the information provided herein, except for conformation to contracted specifications. All information appearing herein is based upon data obtained from manufacturers and/or recognized technical sources. While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency.

Conditions of use are beyond our control, and therefore users are responsible for verifying the data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their handling, and disposal of the product. Users also assume all risks in regards to the publication or use of, or reliance upon information contained herein.

This information relates only to the product designated herein, and does not relate to its use in combination with any other material or process.