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SAFETY DATA SHEET

1. Identification

Product identifier: CAUSTIC SODA 50%

Other means of identification

Synonyms: Sodium Hydroxide

SDS number: 000100000088

Recommended use and restriction on use

Recommended use: Not available.

Restrictions on use: Not known.

Emergency telephone number:For emergency assistance Involving chemicals

call CHEMTREC day or night at: 1-800-424-9300. CHEMTREC INTERNATIONAL Tel# 703-527-3887

2. Hazard(s) identification

Hazard classification

Health hazards

Acute toxicity (Oral) Category 4

Skin corrosion/irritation Category 1A

Serious eye damage/eye irritation Category 1

Environmental hazardsAcute hazards Category 3
to the aquatic environment

Label elements

Hazard symbol



Version: 1.2
Revision date: 04/29/2015



Signal word	Danger
Hazard statement	Corrosive. Harmful if swallowed. Causes severe skin burns and eye damage.
Precautionary statement	
Prevention	Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dust or mists. Wear protective gloves/protective clothing/eye protection/face protection.
Response	IF INHALED: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF SWALLOWED: Call a POISON CENTER/doctor/ if you feel unwell. Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. Specific treatment (see this label). Wash contaminated clothing before reuse.
Storage	Store in a closed container. Keep container tightly closed. Store in a well-ventilated place. Store in a dry place. Store locked up.
Disposal	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
Other hazards which do not result in GHS classification	None.

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3. Composition/information on ingredients

Substances

Chemical identity	Common name and synonyms	CAS number	Content in percent (%)*
Sodium hydroxide		1310-73-2	>=48 - <=52%
Water		7732-18-5	>=48 - <=52%
Sodium Chloride		7647-14-5	>=0 - <=5%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

General information: CAUTION! First aid personnel must be aware of own risk during rescue!

Ingestion: Do NOT induce vomiting. Never give liquid to an unconscious person. Get medical attention immediately.

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. Perform artificial respiration if breathing has stopped. Get medical attention immediately.

Skin contact: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Eye contact: If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

Most important symptoms/effects, acute and delayed

Symptoms: No data available.

Indication of immediate medical attention and special treatment needed

Treatment: No data available.

5. Fire-fighting measures

General fire hazards: No data available.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use: Powder. In case of fire in the surroundings: all extinguishing agents allowed.

Unsuitable extinguishing media: No data available.

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Specific hazards arising from the chemical: No data available.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: No data available.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Keep unauthorized personnel away.

Methods and material for containment and cleaning up: Absorb spillage with non-combustible, absorbent material. Dike for later disposal.

7. Handling and storage

Precautions for safe handling: Use personal protective equipment as required. Use only with adequate ventilation. Container must be kept tightly closed.

Conditions for safe storage, including any incompatibilities: No data available.

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8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Chemical identity	Type	Exposure Limit values	Source
Sodium hydroxide	Ceiling	2 mg/m3	US. ACGIH Threshold Limit Values (03 2013)
	Ceil_Tim e	2 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	PEL	2 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	Ceiling	2 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	Ceiling	2 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
Sodium hydroxide - Particulate.	ST ESL	20 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013)
	AN ESL	2 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013)
Sodium hydroxide	Ceiling	2 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (02 2012)

Appropriate engineering controls No data available.

Individual protection measures, such as personal protective equipment

General information: Use personal protective equipment as required. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned. Practice good housekeeping.

Eye/face protection: Use personal protective equipment as required. Wear goggles/face shield.

Skin protection

Hand protection: No data available.

Other: No data available.

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Respiratory protection: No data available.
Hygiene measures: No data available.

9. Physical and chemical properties

Physical state: Liquid
Form: No data available.
Color: No data available.
Odor: No data available.
Odor threshold: No data available.
pH: 14
Melting point/freezing point: -12 - 10 °C
Initial boiling point and boiling range: 105 - 140 °C
Flash Point: No data available.
Evaporation rate: No data available.
Flammability (solid, gas): No data available.
Upper/lower limit on flammability or explosive limits
Flammability limit - upper (%): No data available.
Flammability limit - lower (%): No data available.
Explosive limit - upper (%): No data available.
Explosive limit - lower (%): No data available.
Vapor pressure: No data available.
Vapor density: No data available.
Relative density: No data available.
Solubility(ies)
Solubility in water: No data available.
Solubility (other): No data available.
Partition coefficient (n-octanol/water): No data available.
Auto-ignition temperature: No data available.
Decomposition temperature: No data available.
Viscosity: No data available.

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10. Stability and reactivity

Reactivity: No data available.
Chemical stability: No data available.
Possibility of hazardous reactions: No data available.
Conditions to avoid: No data available.
Incompatible materials: No data available.
Hazardous decomposition products: No data available.

11. Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics

Ingestion: No data available.
Inhalation: No data available.
Skin contact: No data available.
Eye contact: No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral

Product: ATEmix (): 353.488372 mg/kg

Dermal

Product: Not classified for acute toxicity based on available data.

Inhalation

Product: No data available.

Specified substance(s):

Sodium Chloride LC 50 (Rat,) : > 42 mg/l 2 (reliable with restrictions)

Repeated dose toxicity

Product: No data available.

Skin corrosion/irritation

Product: No data available.

Serious eye damage/eye irritation

Product: No data available.

Respiratory or skin sensitization

Product: No data available.

Carcinogenicity

Product: No data available.

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IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Germ cell mutagenicity

In vitro

Product: No data available.

In vivo

Product: No data available.

Reproductive toxicity

Product: No data available.

Specific target organ toxicity - single exposure

Product: No data available.

Specific target organ toxicity - repeated exposure

Product: No data available.

Aspiration hazard

Product: No data available.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

Sodium hydroxide LC 50 (Western mosquitofish (*Gambusia affinis*), 24 h): 125 mg/l Mortality
LC 50 (Guppy (*Poecilia reticulata*), 24 h): 145 mg/l Mortality LC 50 (Goldfish (*Carassius auratus*), 24 h): 160 mg/l Mortality LC 50 (Bony fish superclass (*Osteichthyes*), 48 h): 33 - 100 mg/l Mortality LC 50 (Western mosquitofish (*Gambusia affinis*), 48 h): 125 mg/l Mortality

Aquatic invertebrates

Product: No data available.

Specified substance(s):

Sodium hydroxide EC 50 (Water flea (*Ceriodaphnia dubia*), 48 h): 34.59 - 47.13 mg/l
Intoxication LC 50 (Common shrimp, sand shrimp (*Crangon crangon*), 48 h):
33 - 100 mg/l Mortality LC 50 (Cockle (*Cerastoderma edule*), 48 h): 330 -

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1,000 mg/l Mortality

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Aquatic invertebrates

Product: No data available.

Toxicity to Aquatic Plants

Product: No data available.

Persistence and degradability

Biodegradation

Product: No data available.

BOD/COD ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration factor (BCF)

Product: No data available.

Partition coefficient n-octanol / water (log Kow)

Product: No data available.

Mobility in soil:

No data available.

Known or predicted distribution to environmental compartments

Sodium hydroxide No data available.

Water No data available.

Sodium chloride No data available.

Known or predicted distribution to environmental compartments

Water No data available.

13. Disposal considerations

Disposal instructions: No data available.

Contaminated packaging: No data available.

14. Transport information

DOT

UN number: UN 1824
UN proper shipping name: Sodium hydroxide solution
Transport hazard class(es)
Class: 8
Label(s): 8
Packing group: II
Marine Pollutant: Not regulated.

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Special precautions for user: -

IMDG

UN number: UN 1824
UN proper shipping name: SODIUM HYDROXIDE SOLUTION
Transport hazard class(es)
Class: 8
Label(s): 8
EmS No.: F-A, S-B
Packing group: II
Marine Pollutant: Not regulated.
Special precautions for user: -

IATA

UN number: UN 1824
Proper Shipping Name: Sodium hydroxide solution
Transport hazard class(es):
Class: 8
Label(s): 8
Packing group: II
Environmental hazards: Not regulated.
Special precautions for user: -
Other information
Passenger and cargo aircraft: Allowed.
Cargo aircraft only: Allowed.

15. Regulatory information

US federal regulations US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

Sodium hydroxide Reportable quantity: 1000 lbs.

Superfund amendments and reauthorization act of 1986 (SARA)

Hazard categories

Not listed.

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SARA 302 Extremely hazardous substance

None present or none present in regulated quantities.

SARA 304 Emergency release notification

Chemical identity	RQ
Sodium hydroxide	1000 lbs.

SARA 311/312 Hazardous chemical

Chemical identity	Threshold Planning Quantity
Sodium hydroxide	500 lbs
Sodium Chloride	500 lbs

SARA 313 (TRI reporting)

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

Sodium hydroxide Reportable quantity: 1000 lbs.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

US state regulations

US. California Proposition 65

No ingredient regulated by CA Prop 65 present.

US. New Jersey Worker and Community Right-to-Know Act

Sodium hydroxide Listed

US. Massachusetts RTK - Substance List

Sodium hydroxide Listed

US. Pennsylvania RTK - Hazardous Substances

Sodium hydroxide Listed

US. Rhode Island RTK

Sodium hydroxide Listed

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Inventory Status: Australia AICS:	Not in compliance with the inventory.
Canada DSL Inventory List:	Not in compliance with the inventory.
EU EINECS List:	Not in compliance with the inventory.
EU ELINCS List:	Not in compliance with the inventory.
Japan (ENCS) List:	Not in compliance with the inventory.
EU No Longer Polymers List:	Not in compliance with the inventory.
China Inv. Existing Chemical Substances:	Not in compliance with the inventory.
Korea Existing Chemicals Inv. (KECI):	Not in compliance with the inventory.
Canada NDSL Inventory:	Not in compliance with the inventory.
Philippines PICCS:	Not in compliance with the inventory.
US TSCA Inventory:	On or in compliance with the inventory
New Zealand Inventory of Chemicals:	Not in compliance with the inventory.
Japan ISHL Listing:	Not in compliance with the inventory.
Japan Pharmacopoeia Listing:	Not in compliance with the inventory.

16. Other information, including date of preparation or last revision

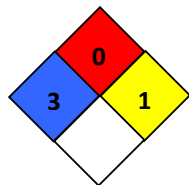
HMIS Hazard ID

Health	*	3
Flammability	0	
Physical hazards	1	
PERSONAL PROTECTION		B

B - Safety Glasses & Gloves

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; *Chronic health effect

NFPA Hazard ID



	Flammability
	Health
	Reactivity
	Special hazard.

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

Issue date: 04/29/2015
Revision date: No data available.
Version #: 1.2
Further information: No data available.

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Revision date: 04/29/2015



Univar USA Inc Material Safety Data Sheet

For Additional Information contact MSDS Coordinator during business hours, Pacific time: (425) 889-3400

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