

Canada

Name	CAS number	%
Sodium hydroxide	1310-73-2	>1
2-Butoxyethanol	111-76-2	>1
Disodium metasilicate	6834-92-0	>1

Mexico

Name	UN number	IDLH	Classification				CAS number	%
			H	F	R	Special		
Sodium hydroxide	UN1823	10 mg/m ³	3	0	0	1310-73-2	>1	
2-Butoxyethanol	Not regulated.	700 ppm	2	1	0	111-76-2	>1	
Disodium metasilicate	UN3253	-	3	0	0	6834-92-0	>1	

4 . First aid measures

- Eye contact** : Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 20 minutes. Seek medical attention if symptoms occur.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 20 minutes. Seek medical attention if symptoms occur.
- Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if symptoms occur.
- Ingestion** : Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention if symptoms occur.
- Notes to physician** : No specific antidote. Medical staff must contact Poison Control Center.

5 . Fire-fighting measures

- Flammability of the product** : Combustible.
- Products of combustion** : These products are carbon oxides. Some metallic oxides.
- Extinguishing media**
- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
 - Not suitable** : None known.
- Special exposure hazards** : No specific hazard.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6 . Accidental release measures

- Personal precautions** : Use suitable protective equipment.
- Environmental precautions and clean-up methods** : Wash small spills to sanitary sewer. Large spills-confine spill, soak up with approved absorbent, shovel product into approved container for disposal.

7 . Handling and storage

- Handling** : Keep container closed. Use only with adequate ventilation. Do not breathe vapor or mist. Wash thoroughly after handling.
- Storage** : Keep container tightly closed. Keep container in a cool, well-ventilated area.

8 . Exposure controls/personal protection

United States

Product name

Sodium hydroxide

Exposure limits
ACGIH TLV (United States, 1/2005).
CEIL: 2 mg/m³ Form: All forms.
NIOSH REL (United States, 12/2001).
CEIL: 2 mg/m³ Form: All forms.
OSHA PEL (United States, 8/1997).
TWA: 2 mg/m³ 8 hour(s). Form: All forms.

2-Butoxyethanol

ACGIH TLV (United States, 1/2005).

TWA: 20 ppm 8 hour(s). Form: All forms.

NIOSH REL (United States, 12/2001). Skin
TWA: 24 mg/m³ 10 hour(s). Form: All forms.

TWA: 5 ppm 10 hour(s). Form: All forms.

OSHA PEL (United States, 8/1997). Skin
TWA: 240 mg/m³ 8 hour(s). Form: All forms.

TWA: 50 ppm 8 hour(s). Form: All forms.

Canada

Product name

Sodium hydroxide

Exposure limits
CSST (Canada, 2001).
TWA: 2 mg/m³ 8 hour(s).

2-Butoxyethanol

ACGIH TLV (Canada, 1/2005).

TWA: 20 ppm 8 hour(s). Form: All forms

Mexico

Product name

Sodium hydroxide

Exposure limits
NOM-010-STPS (Mexico, 9/2000).
LMPE-P: 2 mg/m³ Form: All forms.

2-Butoxyethanol

NOM-010-STPS (Mexico, 9/2000). Skin
CCT: 360 mg/m³ 15 minute(s). Form: All forms.

CCT: 75 ppm 15 minute(s). Form: All forms.

CPT: 120 mg/m³ 8 hour(s). Form: All forms.

CPT: 26 ppm 8 hour(s). Form: All forms.

Engineering measures : Use only with adequate ventilation.

Personal protection
Eyes : Splash goggles.

Skin : Synthetic apron.

Respiratory : Vapor respirator.

Hands : Nitrile gloves.

Practice safe workplace habits. Minimize body contact with this, as well as all chemicals in general.

HMIS Code/Personal protective equipment : G

Hygiene measures : Wash hands, forearms and face thoroughly after handling compounds and before eating, smoking and using the lavatory and at the end of the day. Follow good industrial hygiene practice.

9 . Physical and chemical properties

Physical state	: Liquid.
Flash point	: The lowest known value is Open cup: 61.85°C (143.3°F). (Cleveland.). (2-Butoxyethanol)
Auto-ignition temperature	: The lowest known value is 244°C (471.2°F) (2-Butoxyethanol).
Flammable limits	: The greatest known range is Lower: 1.1% Upper: 12.7% (2-Butoxyethanol)
Color	: Green.
Odor	: Mild.
pH	: Basic.
Boiling/condensation point	: >100°C (212°F)
Melting/freezing point	: 0°C (32°F)
Critical temperature	: The lowest known value is 367.9°C (694.2°F) (2-Butoxyethanol).
Relative density	: >1 (Water = 1)
Vapor density	: >1 (Air = 1)
Evaporation rate	: <1 compared with Butyl acetate.
Solubility	: Miscible in water.

10 . Stability and reactivity




Stability and reactivity	: The product is stable.
Incompatibility with various substances	: Highly reactive or incompatible with the following materials: acids and moisture. Reactive with oxidizing materials and alkalis.
Hazardous polymerization	: Will not occur.
Conditions of reactivity	: None known.

11 . Disposal considerations

Waste disposal	: Dispose material in accordance with all local, state, and federal regulations.
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12 . Transport information

NAERG : 153

Regulatory information	Proper shipping name	Class	UN number	PG	Label
UN / IMDG / IATA Classification	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium hydroxide) Limited Quantity Exemption	8	UN3267	III	
DOT Classification	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium hydroxide) Limited Quantity Exemption	8	UN3267	III	
TDG Classification	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium hydroxide) Limited Quantity Exemption	8	UN3267	III	

13 . Regulatory information

United States

HCS Classification : Toxic material
Corrosive material
Target organ effects

U.S. Federal regulations : TSCA : All components listed.
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: 2-Butoxyethanol; Sodium hydroxide; Disodium metasilicate
SARA 311/312 MSDS distribution - chemical inventory - hazard identification:
2-Butoxyethanol: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Sodium hydroxide: Immediate (acute) health hazard; Disodium metasilicate: Immediate (acute) health hazard, Delayed (chronic) health hazard
Clean Water Act (CWA) 307: No products were found.
Clean Water Act (CWA) 311: Sodium hydroxide
Clean Air Act (CAA) 112 accidental release prevention: No products were found.
Clean Air Act (CAA) 112 regulated flammable substances: No products were found.
Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

SARA 313

	Product name	CAS number	Concentration
Form R - Reporting requirements	: 2-Butoxyethanol	111-76-2	>1
Supplier notification	: 2-Butoxyethanol	111-76-2	>1

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

State regulations : Pennsylvania RTK: 2-Butoxyethanol: (environmental hazard, generic environmental hazard); Sodium hydroxide: (environmental hazard, generic environmental hazard)
Massachusetts RTK: 2-Butoxyethanol; Sodium hydroxide
New Jersey: 2-Butoxyethanol; Sodium hydroxide
California prop. 65: No products were found.

Canada

WHMIS (Canada) : Class D-1A: Material causing immediate and serious toxic effects (Very toxic).
Class E: Corrosive material

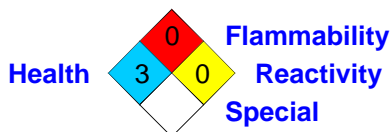


DSL : All components listed.

This product has been classified in accordance with the hazard criteria of the Canadian CPR, the United States OSHA and the Mexican NOM -018-STPS-2000. This MSDS contains all the information required by the CPR, OSHA and NOM -018-STPS-2000.

Mexico

Classification :



HAZARD RATINGS

4- Extreme
3- Serious
2- Moderate
1- Slight
0- Minimal

International lists : This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

14 . Other information

References : - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG. - Canada Gazette Part II, Vol. 122, No. 2. Registration SOR/88-64, 31 December 1987. Hazardous Products Act "Ingredient Disclosure List" - Canadian Transport of Dangerous Goods, Regulations and Schedules, Clear Language version 2005. - Official Mexican Standards NOM-018-STPS-2000 and NOM-004-SCT2-1994.

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Version : 1

Notice to reader

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