



Safety Data Sheet

SODIUM HYDROXIDE 2N, 2.5N, 10M, 10%

Safety Data Sheet dated 9/14/2017, version 2

1. IDENTIFICATION

Product identifier

Mixture identification:

Trade name: SODIUM HYDROXIDE 2N, 2.5N, 10M, 10%

Other means of identification:

Sodium Hydroxide 2N

Product Codes: 10-233-0473, 10-233-0946

Sodium Hydroxide 2.5N

Product Codes: 10-233-1946

Sodium Hydroxide 10M

Product Codes: 10-230-0473, 10-230-0946

Sodium Hydroxide 10%

Product Codes: 10-227-0118, 10-227-0237, 10-227-0473, 10-227-0946

Recommended use of the chemical and restrictions on use

Recommended use:

FOR PROFESSIONAL USE

Restrictions on use:

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Company:

Enartis USA Inc.

7795 Bell Road

Windsor

CA 95492

Competent person responsible for the safety data sheet:

compliance@enartis.com

Emergency phone number

Phone: +1 (707) 838 6312

Fax: +1 (707) 838 1765

2. HAZARD(S) IDENTIFICATION

Classification of the chemical

⚠ Danger, Skin Corr. 1A, Causes severe skin burns and eye damage.

⚠ Danger, Eye Dam. 1, Causes serious eye damage.

Label elements

Hazard pictograms:



Danger

Hazard statements:

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

Precautionary statements:

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.



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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 doctor.

Special Provisions:

None

Hazards not otherwise classified identified during the classification process:

None

Ingredient(s) with unknown acute toxicity:

None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

N.A.

Mixtures

Hazardous components within the meaning of 29 CFR 1910.1200 and related classification:

>= 10% - < 12.5% Sodium Hydroxide; Caustic Soda

REACH No.: 01-2119457892-27-XXXX, Index number: 011-002-00-6, CAS: 1310-73-2, EC: 215-185-5

⚠ A.2/1A Skin Corr. 1A H314

⚠ B.16/1 Met. Corr. 1 H290

4. FIRST-AID MEASURES

Description of necessary measures

In case of skin contact:

Immediately take off all contaminated clothing.

OBTAIN IMMEDIATE MEDICAL ATTENTION.

Remove contaminated clothing immediately and dispose off safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

Most important symptoms/effects, acute and delayed

None

Indication of immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

None

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:

Water.

Carbon dioxide (CO2).

Unsuitable extinguishing media:

None in particular.



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Specific hazards arising from the chemical

Do not inhale explosion and combustion gases.

Hazardous combustion products:

None

Explosive properties: N.A.

Oxidizing properties: N.A.

Special protective equipment and precautions for fire-fighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures

Wear personal protection equipment.

Remove all sources of ignition.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Provide adequate ventilation.

Remove persons to safety.

Use appropriate respiratory protection.

See protective measures under point 7 and 8.

Methods and materials for containment and cleaning up

Wash with plenty of water.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Do not use on extensive surface areas in premises where there are occupants.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

Storage temperature:

Store at ambient temperature.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Sodium Hydroxide; Caustic Soda - CAS: 1310-73-2

OSHA - TWA: 2 mg/m³

ACGIH - STEL: Ceiling 2 mg/m³ - Notes: URT, eye, and skin irr

NIOSH - STEL: 10 mg/m³ - Notes: IDLH

NIOSH - STEL: Ceiling 2 mg/m³

Appropriate engineering controls:

None

Individual protection measures

Eye protection:

Eye glasses with side protection.

Protection for skin:



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Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Use protective gloves that provides comprehensive protection.

Respiratory protection:

Use adequate protective respiratory equipment.

Thermal Hazards:

None

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and colour:	Liquid
Odour:	None
Odour threshold:	N.A.
pH:	14
Melting point / freezing point:	N.A.
Initial boiling point and boiling range:	± 100°C (21 2F)
Solid/gas flammability:	N.A.
Upper/lower flammability or explosive limits:	N.A.
Vapour density:	N.A.
Flash point:	N.A. °F
Evaporation rate:	N.A.
Vapour pressure:	N.A.
Relative density:	1.05 (5%)
Solubility in water:	100%
Solubility in oil:	N.A.
Partition coefficient (n-octanol/water):	N.A.
Auto-ignition temperature:	N.A.
Decomposition temperature:	N.A.
Viscosity:	N.A.
Miscibility:	N.A.
Fat Solubility:	N.A.
Conductivity:	N.A.
Substance Groups relevant properties	N.A.

10. STABILITY AND REACTIVITY

Reactivity

Stable under normal conditions

Chemical stability

Stable under normal conditions

Possibility of hazardous reactions

None

Conditions to avoid

Exposure to moisture.

Exposure to direct sunlight.

Freezing.

Incompatible materials

Oxidizing agents, acids, water, metals, aluminum, other light metals.

Hazardous decomposition products

Hydrogen

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Toxicological information of the product:

N.A.

Toxicological information of the main substances found in the product:

Sodium Hydroxide; Caustic Soda - CAS: 1310-73-2



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- a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rabbit = 325 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit = 1350 mg/kg
- b) skin corrosion/irritation:
Test: Skin Corrosive - Route: Skin - Species: Rabbit Positive
Test: Eye Corrosive - Species: Rabbit Positive
- d) respiratory or skin sensitisation:
Test: Respiratory Sensitization - Route: Inhalation Negative
Test: Skin Sensitization - Route: Skin Negative

Substance(s) listed on the NTP report on Carcinogens:

None.

Substance(s) listed on the IARC Monographs:

None.

Substance(s) listed as OSHA Carcinogen(s):

None.

Substance(s) listed as NIOSH Carcinogen(s):

None.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Adopt good working practices, so that the product is not released into the environment.

Sodium Hydroxide; Caustic Soda - CAS: 1310-73-2

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 189 mg/l - Duration h: 96

Endpoint: EC50 - Species: Bacteria = 22 mg/l - Notes: 15 min (Photobacterium phosphoreum) (EU, 2007; OECD, 2002)

Endpoint: LC50 - Species: Fish = 45.4 mg/l - Duration h: 96 - Notes: LC50 Static

b) Aquatic chronic toxicity:

Endpoint: EC50 - Species: Daphnia = 40.4 mg/l - Duration h: 48

Persistence and degradability

N.A.

Bioaccumulative potential

N.A.

Mobility in soil

N.A.

Other adverse effects

None

13. DISPOSAL CONSIDERATIONS

Waste treatment and disposal methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

14. TRANSPORT INFORMATION

UN number

ADR-UN Number: 1824

DOT number: UN1824

IATA-UN Number: 1824

IMDG-UN Number: 1824



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UN proper shipping name
ADR-Shipping Name: SODIUM HYDROXIDE SOLUTION
DOT-Shipping Name: Sodium hydroxide solution
IATA-Shipping Name: SODIUM HYDROXIDE SOLUTION
IMDG-Shipping Name: SODIUM HYDROXIDE SOLUTION

Transport hazard class(es)
ADR-Class: 8
DOT Hazard Class: 8
ADR - Hazard identification number: 80
IATA-Class: 8
IATA-Label: 8
IMDG-Class: 8

Packing group
ADR-Packing Group: II
DOT Packing group: II
IATA-Packing group: II
IMDG-Packing group: II

Environmental hazards
ADR-Environmental Pollutant: No
IMDG-Marine pollutant: No
Most important toxic component: SODIUM HYDROXIDE 2N, 2.5N, 10M, 10%

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)
N.A.

Special precautions
DOT Special provisions: B2, IB2, N34, T7, TP2
DOT Labels: 8
ADR-Subsidiary risks: -
ADR-S.P.: -
ADR-Transport category (Tunnel restriction code): (E)
IATA-Passenger Aircraft: 851
IATA-Subsidiary risks: -
IATA-Cargo Aircraft: 855
IATA-S.P.: A3 A803
IATA-ERG: 8L
IMDG-EmS: F-A , S-B
IMDG-Subsidiary risks: -
IMDG-Stowage and handling: Category A
IMDG-Segregation: "Separated from" acids.

15. REGULATORY INFORMATION

USA - Federal regulations

TSCA - Toxic Substances Control Act

TSCA inventory: all the components are listed on the TSCA inventory.

TSCA listed substances:

None.

SARA - Superfund Amendments and Reauthorization Act

Section 302 – Extremely Hazardous Substances: no substances listed.

Section 304 – Hazardous substances: no substances listed.

Section 313 – Toxic chemical list: no substances listed.

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act

Substance(s) listed under CERCLA: Sodium Hydroxide; Caustic Soda - Reportable quantity: 1000 pounds.

Reportable quantity for mixture: 10000 pounds.

CAA - Clean Air Act

CAA listed substances:

None.

CWA - Clean Water Act



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CWA listed substances:
None.

USA - State specific regulations

California Proposition 65

Substance(s) listed under California Proposition 65:
None.

Massachusetts Right to know

Substance(s) listed under Massachusetts Right to know:
Sodium Hydroxide; Caustic Soda.

New Jersey Right to know

Substance(s) listed under New Jersey Right to know:
Sodium Hydroxide; Caustic Soda.

Pennsylvania Right to know

Substance(s) listed under Pennsylvania Right to know:
Sodium Hydroxide; Caustic Soda.

16. OTHER INFORMATION

Full text of phrases referred to in Section 3:

H314 Causes severe skin burns and eye damage.

H290 May be corrosive to metals.

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Sections modified from the previous revision:

1. IDENTIFICATION
2. HAZARD(S) IDENTIFICATION
3. COMPOSITION/INFORMATION ON INGREDIENTS
8. EXPOSURE CONTROLS/PERSONAL PROTECTION
10. STABILITY AND REACTIVITY
11. TOXICOLOGICAL INFORMATION
12. ECOLOGICAL INFORMATION

Disclaimer:

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality. The information relates only to the specific material and may not be valid for such material used in combination with any other material or in any process.

This Safety Data Sheet cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
HMIS:	Hazardous Materials Identification System
IARC:	International Agency for Research on Cancer
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.



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ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
LTE:	Long-term exposure.
NFPA:	National Fire Protection Association
NIOSH:	National Institute for Occupational Safety and Health
NTP:	National Toxicology Program
OSHA:	Occupational Safety and Health Administration
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STE:	Short-term exposure.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWATLV:	Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).