



MATERIAL SAFETY DATA SHEET

Sodium hydroxide, 0.1n standard solution
02032

**** SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION ****

MSDS Name: Sodium hydroxide, 0.1n standard solution

Caustic soda
 Company Identification: Acros Organics N.V.
 One Reagent Lane
 Fairlawn, NJ 07410
 For information in North America, call: 800-ACROS-01
 For emergencies in the US, call CHEMTREC: 800-424-9300

**** SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS ****

CAS#	Chemical Name	%	EINECS#
1310-73-2	Sodium hydroxide	0.4 wt%	215-185-5
7732-18-5	Water	Balance	231-791-2

**** SECTION 3 - HAZARDS IDENTIFICATION ****

EMERGENCY OVERVIEW

Appearance: clear, colorless.
 Caution! May cause eye and skin irritation. May cause respiratory and digestive tract irritation.
 Target Organs: None known.

Potential Health Effects

- Eye:
May cause eye irritation.
- Skin:
May cause skin irritation.
- Ingestion:
May cause irritation of the digestive tract.
- Inhalation:
May cause respiratory tract irritation.
- Chronic:
Not available.
None

**** SECTION 4 - FIRST AID MEASURES ****

Eyes:
 Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid.

Skin:
 Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

Ingestion:
 If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation:
 Remove from exposure to fresh air immediately. Get medical aid if cough or other symptoms appear.

Notes to Physician:
 Treat symptomatically and supportively.

**** SECTION 5 - FIRE FIGHTING MEASURES ****

General Information:
 As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Extinguishing Media:
 In case of fire use water spray, dry chemical, carbon dioxide, or chemical foam.

Autoignition Temperature: Not available.
 Flash Point: Not available.
 NFPA Rating: Not published.
 Explosion Limits, Lower: Not available.
 Upper: Not available.

**** SECTION 6 - ACCIDENTAL RELEASE MEASURES ****

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:
 Absorb spill with inert material, (e.g., dry sand or earth), then place into a chemical waste container. Neutralize spill with a weak acid such as vinegar or acetic acid.

**** SECTION 7 - HANDLING and STORAGE ****

Handling:
 Wash thoroughly after handling. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

Storage:
 Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

**** SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION ****

Engineering Controls:
 Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Sodium hydroxide	C 2 mg/m3	10 mg/m3 IDLH	2 mg/m3 TWA

Water	none listed	none listed	none listed	
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OSHA Vacated PELs:

Sodium hydroxide:

No OSHA Vacated PELs are listed for this chemical.

Water:

No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to minimize contact with skin.

Respirators:

Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

**** SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES ****

Physical State:	Liquid
Appearance:	clear, colorless
Odor:	Not available.
pH:	Not available.
Vapor Pressure:	Not available.
Vapor Density:	Not available.
Evaporation Rate:	Not available.
Viscosity:	Not available.
Boiling Point:	Not available.
Freezing/Melting Point:	Not available.
Decomposition Temperature:	Not available.
Solubility:	soluble
Specific Gravity/Density:	1.0000g/cm3
Molecular Formula:	HONa
Molecular Weight:	40.00

**** SECTION 10 - STABILITY AND REACTIVITY ****

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Incompatible materials.

Incompatibilities with Other Materials:

Sodium hydroxide is incompatible with aluminum + arsenical materials, ammonia + silver nitrate, benzene-1,4-diol, N,N'-Bis(trinitroethyl)urea, bromine, 4-chlorobutyronitrile, chloroform + methanol, 4-chloro-2-methylphenol, cinnamaldehyde, cyanogen azide, diborane, 2,2-dichloro-3,3-dimethylbutane, glycols, maleic anhydride, 4-methyl-2-nitrophenol, 3-methyl-2-penten-4-yn-1-ol, nitrobenzene, sodium tetrahydroborate, sugars, 1,2,4,5-Tetrachlorobenzene, 1,1,-Trichloroethanol, trichloroethylene, trichloronitromethane, zinc, zirconium. Reacts with mineral acids to form corresponding salts; reacts with weak acid

gases like hydrogen sulfide, sulfur dioxide, and carbon dioxide, ignites when in contact with cinnamaldehyde or zinc; and reacts explosively with a mixture of chloroform and methane. Corrosive to metals such as aluminum, tin, and zinc as well as to alloys such as steel, and may cause formation of flammable hydrogen gas.

Hazardous Decomposition Products:

Toxic fumes of sodium oxide, sodium peroxide fumes.

Hazardous Polymerization: Will not occur.

**** SECTION 11 - TOXICOLOGICAL INFORMATION ****

RTECS#:

CAS# 1310-73-2: WB4900000

CAS# 7732-18-5: ZC0110000

LD50/LC50:

Not available.

CAS# 7732-18-5: Oral, rat: LD50 = >90 mL/kg.

Carcinogenicity:

Sodium hydroxide -

Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Water -

Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Epidemiology:

No data available.

Teratogenicity:

No data available.

Reproductive Effects:

No data available.

Neurotoxicity:

No data available.

Mutagenicity:

Mutation data reported.

Other Studies:

No data available.

**** SECTION 12 - ECOLOGICAL INFORMATION ****

Ecotoxicity:

Not available.

Environmental Fate:

Not available.

Physical/Chemical:

Not available.

Other:

Not available.

**** SECTION 13 - DISPOSAL CONSIDERATIONS ****

Dispose of in a manner consistent with federal, state, and local regulations.

RCRA D-Series Maximum Concentration of Contaminants:

None listed.

RCRA D-Series Chronic Toxicity Reference Levels: None

listed.

RCRA F-Series: None listed.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Not listed as a material banned from land disposal

according to RCRA.

**** SECTION 14 - TRANSPORT INFORMATION ****

US DOT

Shipping Name: SODIUM HYDROXIDE SOLUTION

Hazard Class: 8
UN Number: UN1824
Packing Group: II

IMO
Shipping Name: SODIUM HYDROXIDE SOLUTION
Hazard Class: 8
UN Number: 1824
Packing Group: II

IATA
Shipping Name: SODIUM HYDROXIDE SOLUTION
Hazard Class: 8
UN Number: 1824
Packing Group: II

RID/ADR
Shipping Name: SODIUM HYDROXIDE SOLUTION
Dangerous Goods Code: 8(42B)
UN Number: 1824

Canadian TDG
Shipping Name: SODIUM HYDROXIDE SOLUTION
Hazard Class: 8(9.2)
UN Number: UN1824

**** SECTION 15 - REGULATORY INFORMATION ****

US FEDERAL

TSCA

CAS# 1310-73-2 is listed on the TSCA inventory.
CAS# 7732-18-5 is listed on the TSCA inventory.
Health & Safety Reporting List
None of the chemicals are on the Health & Safety Reporting List.
Chemical Test Rules
None of the chemicals in this product are under a Chemical Test Rule.
Section 12b
None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule
None of the chemicals in this material have a SNUR under TSCA.

SARA

Section 302 (RQ)
CAS# 1310-73-2: final RQ = 1000 pounds (454 kg)
Section 302 (TPQ)
None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 1310-73-2: acute, reactive.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.
This material does not contain any Class 1 Ozone depletors.
This material does not contain any Class 2 Ozone depletors.

Clean Water Act:

CAS# 1310-73-2 is listed as a Hazardous Substance under the CWA.
None of the chemicals in this product are listed as Priority
Pollutants under the CWA.
None of the chemicals in this product are listed as Toxic Pollutants
under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous
by OSHA.

STATE

Sodium hydroxide can be found on the following state right to know
lists: California, New Jersey, Florida, Pennsylvania, Minnesota,
Massachusetts.
Water is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California No Significant Risk Level:

None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: Not available.

Risk Phrases:

Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS# 1310-73-2: 1

CAS# 7732-18-5: No information available.

Canada

CAS# 1310-73-2 is listed on Canada's DSL/NDSL List.

CAS# 7732-18-5 is listed on Canada's DSL/NDSL List.

This product does not have a WHMIS classification.

CAS# 1310-73-2 is not listed on Canada's Ingredient Disclosure List.

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

CAS# 1310-73-2: . OEL-AUSTRALIA:TWA 2 mg/m3. OEL-BELGIUM:STEL 2 mg/m3

/m3. OEL-GERMANY:TWA 2 mg/m3. OEL-JAPAN:STEL 2 mg/m3

NDS:TWA 2 mg/m3. OEL-THE PHILIPPINES:TWA 2 mg/m3. OEL-SWEDEN:TWA 2 mg/

m3. OEL-SWITZERLAND:TWA 2 mg/m3;STEL 4 mg/m3. OEL-THAILAND:TWA 2 mg/m3

. OEL-TURKEY:TWA 2 mg/m3. OEL-UNITED KINGDOM:TWA 2 mg/m3;STEL 2 mg/m3

ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

**** SECTION 16 - ADDITIONAL INFORMATION ****

MSDS Creation Date: 2/09/1996 Revision #1 Date: 9/02/1997

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.

[Back](#) to product information.
