

Safety Data Sheet
according to 1907/2006/EC, Article 31

Printing date 23.06.2008

Revision: 23.06.2008

* **1 Identification of substance**

Trade name: Denaturation Solution

Article number: A830

Application of the substance / the preparation: Laboratory chemicals

Manufacturer/Supplier:

Promega Corporation
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Madison, WI 53711
U.S.A.
1-608-274-4330
1-800-356-9526

MSDS author: Regulatory.Affairs@promega.com

Further information obtainable from:

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Tel: (44) 23 8076 0225
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Information in case of emergency:

CHEMTREC 1-800-424-9300

For call originating outside the United States dial 001-703-527-3887

* **2 Hazards identification**

Hazard description:



C Corrosive

Information concerning to particular hazards to man and environment

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

R 34 Causes burns.

Classification system:

The classification is in line with current EC lists. It is extended, by information from technical literature and company information.

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3 Composition/information on ingredients

Chemical characterization

Description: Mixture of substances listed below with nonhazardous additions.

Components:

CAS: 1310-73-2	sodium hydroxide	 C; R 35	<2.50%
EINECS: 215-185-5			

Additional information: For the wording of the listed risk phrases refer to section 16.

4 First aid measures

General information: Immediately remove any clothing soiled by the product.

After inhalation: In case of unconsciousness place patient stably in side position for transportation.

After skin contact: Immediately wash with soap, water and rinse thoroughly.

After eye contact: Rinse opened eye for several minutes under running water.

After swallowing: Drink plenty of water and provide fresh air. Call for a doctor immediately.

5 Fire fighting measures

Suitable extinguishing agents:

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

6 Accidental release measures

Person-related safety precautions: Wear protective equipment. Keep unprotected persons away.

Measures for environmental protection: Dilute with plenty of water.

Measures for cleaning/collecting:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralizing agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

7 Handling and storage

Handling

Information for safe handling:

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Information about fire - and explosion protection: No special measures required.

Storage

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: Keep receptacle tightly sealed.

8 Exposure controls and personal protection gear

Additional information about design of technical facilities: No further data; see item 7.

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Ingredients with limit values that require monitoring at the workplace:**1310-73-2 sodium hydroxide**WEL Short-term value: 2 mg/m³**Additional information:** The lists valid during the making were used as basis.**Personal protective equipment****General protective and hygienic measures**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Protection of hands:

Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material:

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Tightly sealed goggles.**9 Physical and chemical properties****General Information**

Form: Fluid
Colour: Colourless
Odour: Characteristic

Change in condition

Melting point/Melting range: 0°C
Boiling point/Boiling range: 100°C

Flash point: Not applicable**Self-igniting:** Product is not selfigniting.**Danger of explosion:** Product does not present an explosion hazard.**Density at 20°C:** 1 g/cm³

Solubility in / Miscibility with
Water: Fully miscible

pH-value at 20°C: >12**Solvent content:**

Organic solvents: 0.0 %
Water: 97.6 %

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Solids content: 2.4 %

10 Stability and reactivity

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

Dangerous reactions: Reacts with strong acids

Dangerous decomposition products: No dangerous decomposition products known

11 Toxicological information

Acute toxicity:

LD/LC50 values relevant for classification:

1310-73-2 sodium hydroxide

Oral	LD50	2000 mg/kg (Rat)
Irritation of skin	acute	500 mg/ 24H (Rabbit)

Primary irritant effect:

on the skin: Caustic effect on skin and mucous membranes.

on the eye:

Strong caustic effect.

Irritating effect.

Sensitization: No sensitizing effects known.

Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

Corrosive

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

12 Ecological information

General notes:

Generally not hazardous for water.

Must not reach sewage water or drainage ditch undiluted or unneutralized.

Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

13 Disposal considerations

Product:

Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

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Recommended cleansing agents: Water, if necessary together with cleansing agents.

14 Transport information

Contact Promega Safety Department for additional transport information.

Land transport ADR/RID (cross-border)



ADR/RID class: 8 Corrosive substances.
 Danger code (Kemler): 80
 UN-Number: 1824
 Packaging group: III
 Hazard label: 8
 Description of goods: 1824 SODIUM HYDROXIDE SOLUTION

Maritime transport IMDG:



IMDG Class: 8
 UN Number: 1824
 Label: 8
 Packaging group: III
 EMS Number: F-A,S-B
 Marine pollutant: No
 Proper shipping name: SODIUM HYDROXIDE SOLUTION

Air transport ICAO-TI and IATA-DGR:



ICAO/IATA Class: 8
 UN/ID Number: 1824
 Label: 8
 Packaging group: III
 Proper shipping name: SODIUM HYDROXIDE SOLUTION

15 Regulations

Labelling according to EU guidelines:

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials

Hazard-determining components of labelling:

sodium hydroxide

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Risk phrases:

34 Causes burns.

Safety phrases:

20 When using do not eat or drink.

23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

60 This material and its container must be disposed of as hazardous waste.

National regulations**Waterhazard class:** Generally not hazardous for water.**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant R-phrases

35 Causes severe burns.

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Safety Department

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*** Data compared to the previous version altered.**