SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 Version 5.0 Revision Date 08.05.2012 Print Date 16.08.2012

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name : Sodium hydroxide standard solution, 6 M

Product Number : 06163 Brand : Fluka

Company : Sigma-Aldrich Pty. Ltd. 12 Anella Avenue

CASTLE HILL NSW 2154

AUSTRALIA

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2. HAZARDS IDENTIFICATION

Classified as hazardous according to criteria of NOHSC. - HAZARDOUS SUBSTANCE. DANGEROUS GOODS.

Risk advice to man and the environment

Causes severe burns.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Molecular Weight : 40.00 g/mol

Component		Classification	Concentration		
Sodium hydroxide					
CAS-No. EC-No. Index-No.	1310-73-2 215-185-5 011-002-00-6	C, R35	10 - 30 %		

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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5. FIREFIGHTING MEASURES

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions

Do not let product enter drains.

Methods for cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Handling

Avoid inhalation of vapour or mist.

Storage

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components with workplace control parameters					
Components	CAS-No.	Value	Control parameters	Basis	
Sodium hydroxide	1310-73-2	Peak limit	2 mg/m3	Australia. Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment	
Remarks	ACGIH is the documentation source				

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Eve protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

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Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

liquid Form

Colour colourless

Safety data

14.0 рΗ

-12 - 10 °C Melting point 105 - 140 °C **Boiling point**

Flash point not applicable Ignition temperature no data available Lower explosion limit no data available Upper explosion limit no data available Vapour pressure < 24 hPa at 20 °C 4 hPa at 37 °C

1.327 g/cm3 at 25 °C Density

Water solubility completely miscible, soluble

Relative vapour 1.38

density - (Air = 1.0)

10. STABILITY AND REACTIVITY

Storage stability

Stable under recommended storage conditions.

Materials to avoid

Water, acids, Organic materials, Chlorinated solvents, Aluminum, Phosphorus, Tin/tin oxides, Zinc

Hazardous decomposition products

Other decomposition products - no data available

Hazardous decomposition products formed under fire conditions. - Sodium oxides

11. TOXICOLOGICAL INFORMATION

Acute toxicity

no data available

Irritation and corrosion

no data available

Eyes: no data available

Sensitisation

no data available

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Chronic exposure

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as

probable, possible or confirmed human carcinogen by IARC.

no data available

no data available

Signs and Symptoms of Exposure

burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

Potential Health Effects

Inhalation May be harmful if inhaled. Material is extremely destructive to the tissue of the

mucous membranes and upper respiratory tract.

Skin May be harmful if absorbed through skin. Causes skin burns.

Eyes Causes eye burns.

Ingestion May be harmful if swallowed. Causes burns.

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

no data available

Bioaccumulation Remarks: no data available

Ecotoxicity effects

no data available

Further information on ecology

no data available

13. DISPOSAL CONSIDERATIONS

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

ADR/RID

UN number: 1824 Class: 8 Packing group: II Proper shipping name: SODIUM HYDROXIDE SOLUTION

IMDG

UN number: 1824 Class: 8 Packing group: II EMS-No: F-A, S-B

Proper shipping name: SODIUM HYDROXIDE SOLUTION

Marine pollutant: No

IATA

UN number: 1824 Class: 8 Packing group: II

Proper shipping name: Sodium hydroxide solution

15. REGULATORY INFORMATION

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Labelling according to EC Directives

Hazard symbols

C Corrosive

R-phrase(s)

R35 Causes severe burns.

S-phrase(s)

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical

advice.

S37/39 Wear suitable gloves and eve/face protection.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the

label where possible).

Hazardous components which must be listed on the label:

1310-73-2 Sodium hydroxide

16. OTHER INFORMATION

Text of R-phrases mentioned in Section 3

R35 Causes severe burns.

Further information

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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