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Title: MATERIAL SAFETY DATA SHEET (MSDS): SODIUM HYDROXIDE			1 Page of 1

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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MSDS Name:
Sodium hydroxide

Catalog Numbers:
S045

Synonyms:
Caustic soda

Company Information:
LEONID CHEMICALS Pvt Ltd,
62/A-2, 1st Stage,
Yeshvanthpur Industrial Suburb,
Asoka puram School Road,
Bangalore -22, Karnataka, INDIA
Ph- +91-80-23378354
Fax: +918023378354/23377126

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2. HAZARDS IDENTIFICATION

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Classification of the substance or mixture
According to Regulation (EC) No1272/2008
Skin corrosion (Category 1A)
According to European Directive 67/548/EEC as amended.
Causes severe burns.

Label elements

Pictogram
Signal word Danger
Hazard statement(s)
H314 Causes severe skin burns and eye damage.
Precautionary statement(s)

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P280 Wear protective gloves/protective clothing/eye protection/face protection.
 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 POISON CENTER or doctor/physician.

Hazard symbol(s)

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 eye/face protection.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Other hazards - none

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula: HNaO

Molecular Weight: 40.00 g/mol

CAS-No.: 1310-73-2

EC-No.: 215-185-5

Index-No.: 011-002-00-6

Skin Corr. 1A; H314 C, R35

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4. FIRST AID MEASURES

General advice

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

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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. FIRE-FIGHTING MEASURES
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Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the
surrounding environment.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

Further information

The product itself does not burn.

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6. ACCIDENTAL RELEASE MEASURES
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Personal precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing dust.
Ensure adequate ventilation.
Evacuate personnel to safe areas.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

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Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

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7. HANDLING AND STORAGE

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Precautions for safe handling

Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

Conditions for safe storage

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) 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

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
Handle with gloves.

Eye protection

Face shield and safety glasses

Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

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Hygiene measures

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Form pellets
Colour: white
pH: 13 - 14
Melting point: 318 °C
Boiling point: 1390 °C
Flash point: not applicable
Ignition temperature: no data available
Lower explosion limit: no data available
Upper explosion limit: no data available
Vapour pressure: < 24.00 hPa at 20 °C
: 4.00 hPa at 37 °C
Density: 2.1300 g/cm³
Water solubility: no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Conditions to avoid
no data available

Materials to avoid
Strong oxidizing agents, Strong acids, Organic materials

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Sodium/sodium oxides

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11. TOXICOLOGICAL INFORMATION

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Acute toxicity
no data available

Skin corrosion/irritation
Skin - rabbit - Severe skin irritation - 24 h

Serious eye damage/eye irritation
Eyes - rabbit - Severe eye irritation - 24 h

Respiratory or skin sensitization
no data available

Germ cell mutagenicity
no data available

Carcinogenicity
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.

Reproductive toxicity
no data available

Specific target organ toxicity - single exposure
no data available

Specific target organ toxicity - repeated exposure
no data available

Aspiration hazard
no data available

Potential health effects
Inhalation May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

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Ingestion May be harmful if swallowed. Causes severe burns.

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

Eyes Causes severe eye burns.

Signs and Symptoms of Exposure

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

Additional Information

RTECS: WB4900000

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12. ECOLOGICAL INFORMATION
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Toxicity

Toxicity to fish LC50 - *Gambusia affinis* (Mosquito fish) - 125 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates.

Immobilization EC50 - *Daphnia* - 40.38 mg/l - 48 h

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects



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no data available

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13. DISPOSAL CONSIDERATIONS

Product

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

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14. TRANSPORT INFORMATION

ADR/RID

UN-Number: 1823 Class: 8 Packing group: II
 Proper shipping name: SODIUM HYDROXIDE, SOLID

IMDG

UN-Number: 1823 Class: 8 Packing group: II EMS-No: F-A, S-B
 Proper shipping name: SODIUM HYDROXIDE, SOLID
 Marine pollutant: No

IATA

UN-Number: 1823 Class: 8 Packing group: II
 Proper shipping name: Sodium hydroxide, solid

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15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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16. OTHER INFORMATION

Text of H-code(s) and R-phrase(s) mentioned in Section 3

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H314 Causes severe skin burns and eye damage.
Skin Corr. Skin corrosion
C Corrosive
R35 Causes severe burns.

Further information

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 event shall Leonid Chemicals Pvt. Ltd. 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, however arising, even if Leonid Chemicals Pvt. Ltd. has been advised of the possibility of such damages.


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		(CODE) SECTION : S045	
Title: SPECIFICATION MANUAL - SODIUM HYDROXIDE			Issue : 02 Rev.: 00 1 Page of 2

Specification manual - Sodium Hydroxide

NaOH

MW: 40.00

Product : Sodium hydroxide LR
Description : White deliquescent pellets
Cat No : S045
Cas no : 1310-73-2
Prepared Date : 07.03.2005
Approved Date : 07.03.2005

REVISION HISTORY			
Issue/Rev	Description of Change	Author	Effective Date
01/00	Initial Release	S. Paul Joshua	07.03.2005
02/00	Reviewed no changes	S. Paul Joshua	01.04.2011
Next Review Due :	02.04.2015		
To be reviewed by :	Head-QC/QA		

Sl. No.	Tests	Specification
		LR
1	Assay	Min 98%
2	Carbonate (Na ₂ CO ₃)	1%
3	Chloride (Cl)	0.005%
4	Phosphate (PO ₄)	0.001%

Approved By: S.Paul Joshua, Head Quality Control and Quality Assurance