



BASP CHEMICAL PRODUCTS LTD.

MATERIAL SAFETY DATA SHEET

CAUSTIC SODA LYE – MSDS

Chemical Product and Company Identification

Product Name : Caustic Soda Lye
Chemical Name : Hydrogen Peroxide
Chemical Formula : NaOH
Distributor : **BASP Chemical Products Limited**
Address : 105/106 Parshwa Chamber, 17/21 Issaji Street, Vadgadi,
Mumbai – 400 003, INDIA
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Composition and information of Ingredients

COMPOSITION		
Name	CAS #	% by Weight
Water	7732-18-5	70
Hydrogen Peroxide	7722-84-1	30
Toxicological Data on Ingredients: Hydrogen Peroxide: ORAL (LD50): Acute: 2000 mg/kg		

Hazardous Identification

Potential Acute Health Effects: Very hazardous in case of skin contact (irritant), of eye contact (irritant). Hazardous in case of skin contact (corrosive), of eye contact (corrosive), of ingestion, Slightly hazardous in case of inhalation (lung sensitizer). Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Prolonged exposure may result in skin



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burns and ulcerations. Over-exposure by inhalation may cause respiratory irritation. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering

Potential Chronic Health Effects: CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. **DEVELOPMENTAL TOXICITY:** Not available. The substance is toxic to lungs, mucous membranes. Repeated or prolonged exposure to the substance can produce target organs damage.

First Aid Measures

Eye Contact:

Check for and remove any contact lenses. Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

Skin Contact:

In case of skin contact, immediately flush skin with plenty of water for 15 minutes. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used, washing clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation:

If inhaled by mistake, get some fresh air immediately. If the person is not able to breath, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Serious Inhalation:

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. **WARNING:** It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

Ingestion:

Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantity of material is swallowed, call a physician immediately



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Fire and Explosion Data

Flammability of the Product	:Non-Flammable
Auto – Ignition Temperature	:Decomposes
Flash Points	:Not Applicable
Flammable Limits	:Not Applicable
Fire Hazards in Presence of Various Substances	:Combustible materials

Explosion Hazards in Presence of Various Substances: Slightly explosive in presence of open flames and sparks, of heat, of organic materials, of metals, of acids.

Fire Fighting Media and Instructions Fire: Small fires: Use water. Do not use dry chemicals or foams. CO₂, or Halon may provide limited control. Large fires: Flood fire area with water from a distance. Move containers from fire area if you can do it without risk. Do not move cargo or vehicle if cargo has been exposed to heat. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out. ALWAYS stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn. / Hydrogen peroxide, aqueous solution, with not less than 8% but less than 20% Hydrogen peroxide; Hydrogen peroxide, aqueous solution, with not less than 20% but not more than 60% Hydrogen peroxide

Special Remarks on Fire Hazards: Most cellulose (wood, cotton) materials contain enough catalyst to cause spontaneous ignition with 90% Hydrogen Peroxide. Hydrogen Peroxide is a strong oxide. It is not flammable itself, but it can cause spontaneous combustion of flammable materials and continued support of the combustion because it liberates oxygen as it decomposes. Hydrogen peroxide mixed with magnesium and a trace of magnesium dioxide will ignite immediately.

Special Remarks on Explosion Hazards: EXPLOSION HAZARD: SEVERE, WHEN HIGHLY CONCENTRATED OR PURE H₂O₂ IS EXPOSED TO HEAT, MECHANICAL IMPACT, OR CAUSED TO DECOMPOSE CATALYTICALLY BY METALS & THEIR SALTS, DUSTS & ALKALIES. ANOTHER SOURCE OF HYDROGEN PEROXIDE EXPLOSIONS IS FROM SEALING THE MATERIAL IN STRONG CONTAINERS. UNDER SUCH CONDITIONS EVEN GRADUAL DECOMPOSITION OF HYDROGEN PEROXIDE TO WATER + 1/2 OXYGEN CAN CAUSE LARGE PRESSURES TO BUILD UP IN THE CONTAINERS WHICH MAY BURST EXPLOSIVELY. Fire or explosion: May explode from friction, heat or contamination. These substances will accelerate burning when involved in a fire. May ignite combustibles (wood, paper, oil, clothing, etc.). Containers may explode when heated. Runoff may create fire or explosion hazard. /Hydrogen peroxide, aqueous solution, stabilized, with more than 60% Hydrogen peroxide Fire or explosion: These substances will accelerate burning when involved in a fire. Some may decompose explosively



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when heated or involved in a fire. May explode from heat or contamination. Some will react explosively with hydrocarbons (fuels). May ignite combustibles (wood, paper, oil, clothing, etc.). Containers may explode when heated. Runoff may create fire or explosion hazard. /Hydrogen peroxide, aqueous solution, with not less than 8% but less than 20% Hydrogen peroxide; Hydrogen peroxide, aqueous solution, with not less than 20% but not more than 60% Hydrogen peroxide.

Accidental Release Measures

Small Spill:

Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

LARGE Spill

Corrosive liquid. Oxidizing material. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Avoid contact with a combustible material (wood, paper, oil, clothing...). Keep substance damp using water spray. Do not touch spilled material. Use water spray curtain to divert vapor drift. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Handling and Storage

Precautions: Keep locked up. Keep container dry. Keep away from heat. Keep away from sources of ignition. Keep away from combustible material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, reducing agents, combustible materials, organic materials, metals, acids, alkalis.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area. Separate from acids, alkalis, reducing agents and combustibles. Do not store above 8°C (46.4°F). Refrigerate Sensitive to light. Store in light-resistant containers.



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Exposure Control / Personal Protection

Engineering Controls: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection: Face shield. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. Boots.

Personal Protection in case of large Spill: Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Consult local authorities for acceptable exposure limits

Physical and Chemical Properties

Physical State and appearance:	Liquid
Odor:	Odorless
Taste:	Slightly acid. Bitter
Molecular Weight:	Not applicable
Color:	Clear Colorless
pH (1% soln/water):	Not available
Boiling Point:	108°C (226.4°F)
Melting / Freezing Point:	-33°C (-27.4°F)
Critical Temperature:	Not available
Solubility in Water	Soluble
Vapor Pressure (mmHg):	3.1 kPa (@ 20°C)
Vapor Density (Air=1):	1.1 (Air = 1)
Volatility:	Not applicable.
Odor Threshold:	Not applicable.
Water / Oil Dist. Coeff.:	Not applicable.
Dispersion Properties:	See solubility in water, diethyl ether.
Solubility in solvents:	Not applicable.



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Stability and Reactivity Data

Stability: The product is stable. It contains a stabilizer.

Instability Temperature: Not available.

Conditions of Instability: Excess heat, incompatible materials

Incompatibility with various substances: Reactive with reducing agents, combustible materials, organic materials, metals, acids, alkalis.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity: Not applicable.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Toxicological Information

Routes of Entry: Absorbed through skin. Eye contact

Toxicity to Animals: Not Available.

Chronic Effects on Humans: Contains material which may cause damage to the following organs: blood, upper respiratory tract, skin, eyes, central nervous system (CNS).

Other Toxic Effects on Humans: Very hazardous in case of skin contact (irritant). Hazardous in case of skin contact (corrosive), of eye contact (corrosive), of ingestion, of inhalation (lung corrosive).

Special Remarks on other Toxic Effects on Humans: Acute Potential Health Effects: Skin: Causes severe skin irritation and possible burns. Absorption into skin may affect behavior/central nervous system (tremor, ataxia, convulsions), respiration (dyspnea, pulmonary emboli), brain. Eyes: Causes severe eye irritation, superficial clouding, corneal edema, and may cause burns. Inhalation: Causes respiratory tract irritation with coughing, lacrimation. May cause chemical burns to the respiratory tract. May affect behavior/Central nervous system (insomnia, headache, ataxia, nervous tremors with numb extremities) and may cause ulceration of nasal tissue, and , chemical pneumonia, unconsciousness, and possible death. At high concentrations, respiratory effects may include acute lung damage, and delayed pulmonary edema. May affect blood. Ingestion: Causes gastrointestinal tract irritation with nausea, vomiting, hyper motility, and diarrhea. Causes gastrointestinal tract burns. May affect cardiovascular system and cause vascular collapse and damage. May affect blood (change in leukocyte count, pigmented or nucleated red blood cells). May cause difficulty in swallowing,



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stomach distension and possible cerebral swelling. May affect behavior/central nervous system (tetany, excitement). Chronic Potential Health Effects: Prolonged or repeated skin contact may cause dermatitis. Repeated contact may also cause corneal damage. Prolonged or repeated ingestion may affect metabolism (weight loss). Prolonged or repeated inhalation may affect respiration, blood.

Ecological Information

Ecotoxicity: Not available.

Products of Biodegradation: Possibly hazardous short/long term degradation products are to be expected.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Special Remarks on the Behaviour in Sewage: Not available.

Disposal Consideration

Product Disposal:

Untreated waste must never be discharged directly in to the sewers. Review National / Regional regulations.

Packaging Disposal:

Packing material does not get contaminated & can be disposed off by usual methods in accordance with National / Regional requirements.

Transport Information

Classification	: "Oxidizing material"
Road & Rail Transport	:Not available.
GGVE / GGVS	:Not applicable
IMDG	:Not applicable
Air Transport	:Not applicable
P Phrases	:Not applicable
S Phrases	:Not applicable



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Regulatory Information

Health and safety information: Oxidising Material Class – 5.1

Protective Equipment:

Gloves. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Face shield.

Other 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 **BASP Chemical Products Limited** 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 **BASP Chemical Products Limited** has been advised of the possibility of such damages.