MATERIAL SAFETY DATA SHEET

CAUSTIC SODA FLAKES – MSDS

Chemical Product and Company Identification

Product Name : Caustic Soda Flakes
Chemical Name : Hydrogen Peroxide
Chemical Formula : NaOH
Distributor / Trader : BASP Chemical Products Limited
Address : 105/106 Parshwa Chamber, 17/21 Issaji Street, Vadgadi,
Mumbai – 400 003, INDIA
Telephone : (+91)-22-23449557,66312930
Fax : (+91)-22-23443869
Email : info@baspchemical.com

Composition and information of Ingredients

<table>
<thead>
<tr>
<th>COMPOSITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
</tr>
<tr>
<td>Caustic Soda</td>
</tr>
</tbody>
</table>

Toxicological Data on Ingredients: Not Available

Hazardous Identification

Potential Acute Health Effects: Hazardous in case of direct eye contact (irritant). Slightly hazardous in case of skin contact (irritant, sensitizer), of ingestion or inhalation. Prolonged contact with dilute solutions of dust has a destructive effect upon tissue.

Potential Chronic Health Effects:
CARCINOGENIC EFFECTS : Not available.
MUTAGENIC EFFECTS : Not available.
TERATOGENIC EFFECTS : Not available.
DEVELOPMENTAL TOXICITY : Not available.
Repeated or prolonged exposure is not known to aggravate medical condition.
First Aid Measures

Eye Contact:
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 breathe, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

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.

Fire and Explosion Data

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


Risks of explosion of the product in presence of static discharge: Not considered as an explosion hazard.
Fire Fighting Instruction: Cool fire exposed container with water to prevent container weakening and possible rupture. Do not enter confined spaces without self-contained breathing apparatus (SCBA) and structural firefighter’s protective clothing

Special Remarks on Explosion Hazards: Not Applicable.

Accidental Release Measures

Small Spill:
Use appropriate tools to put the spilled in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

LARGE Spill
Use a shovel to put the material into a convenient waste disposal container. Be careful that the product does not enter sewers or to confined spaces.

Handling and Storage

Precautions: Do not ingest. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or label. Avoid direct contact with skin and eyes.

Other Precautions: Follow Label Instructions and Precautions.

Storage: Keep container tightly closed / sealed / properly labeled / original container. Keep container in a cool and well-ventilated area. Keep it away from source of heat, moisture and incompatibles.

Exposure Control / Personal Protection

Engineering Controls: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection: Goggles / Safety Glasses, Lab coat, Boots, Dust respirator. Be sure to use an approved / certified respirator or equivalent gloves.
Personal Protection in case of large Spill: Splash goggles, Full suit, Dust 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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State and appearance</td>
<td>White Deliquescent Flakes</td>
</tr>
<tr>
<td>Odor</td>
<td>No Odor</td>
</tr>
<tr>
<td>Taste</td>
<td>Not available</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>142.986 g/mole</td>
</tr>
<tr>
<td>Color</td>
<td>White</td>
</tr>
<tr>
<td>pH (1% soln/water)</td>
<td>13-14 [0.5% Solution]</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>2534 Degree F.</td>
</tr>
<tr>
<td>Melting / Freezing Point</td>
<td>604 Degree F</td>
</tr>
<tr>
<td>Critical Temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Soluble</td>
</tr>
<tr>
<td>Vapor Pressure (mmHg)</td>
<td>&lt; 0.1</td>
</tr>
<tr>
<td>Vapor Density (Air=1)</td>
<td>&gt;1.0</td>
</tr>
<tr>
<td>Volatility</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Water / Oil Dist. Coeff.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Dispersion Properties</td>
<td>See solubility in water.</td>
</tr>
<tr>
<td>Solubility in solvents</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Specific Gravity (H2O=1)</td>
<td>2.13</td>
</tr>
</tbody>
</table>

### Stability and Reactivity Data

**Stability:** Stable under normal use conditions.

**Instability Temperature:** Not available.

**Conditions of Instability:** Incompatible materials, moisture and dusting.

**Incompatibility with various substances:** Acids, moisture, strong oxidizing agents, powdered metals.

**Corrosivity / Harzardous decomposition (Products):** Oxides of Sodium.

**Special Remarks on Reactivity:** Not applicable.
Toxicological Information

Routes of Entry: Inhalation. Ingestion.

Toxicity to Animals: Not Available.

Chronic Effects on Humans: Not Available.

Other Toxic Effects on Humans: Slightly hazardous in case of skin contact (irritant, sensitizer), of ingestion, of inhalation.

Special Remarks on other Toxic Effects on Humans:
Acute Potential Health Effects: Skin: It can cause skin disorders to persons with pre-existing disorders. Eyes: Causes moderate eye irritation. It may cause Salt Cataract, increased ocular pressure, and degeneration of the retina. Inhalation: It can cause respiratory tract and mucous membrane irritation which is usually mild. Ingestion: May be harmful if swallowed. May cause digestive tract irritation with nausea and vomiting, and thirst. May affect behavior/central nervous system (headache, somnolence, confusion, drowsiness, tremor, convulsions, coma), eyes (Mydriasis), cardiovascular system (bradycardia), respiration (respiratory stimulation, apnea, hyperventilation, pulmonary edema). Inhalation: Prolonged or repeated inhalation may affect the kidneys. Ingestion: Prolonged or repeated ingestion may affect metabolism (anorexia, metabolic acidosis) and urinary system (enlargement of kidneys), cause burns to the mouth & digestive tract.

Ecological Information

Ecotoxicity: Not available.

Products of Biodegradation: Possibly hazardous short term degradation products are not likely.

Toxicity of the Products of Biodegradation: The products of degradation are non toxic.

Special Remarks on the Behaviour in Sewage: Improves sewage quality.

Disposal Consideration

Product Disposal:
Untreated waste must never be discharged directly into 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

UN No. & Symbols: 1823, “Sodium Hydroxide, Solid”
Road & Rail Transport : Not available.
GGVE / GGV: Not applicable
IMDG : Not applicable
Air Transport: Not applicable
P Phrases : Not applicable
S Phrases : Not applicable

Regulatory Information

Health and safety information: Oxidising Material Class – 5.1

Other Regulations: Not Applicable
Other Classifications: Not Applicable

Protective Equipment:
Gloves, Lab coat, Boots, Dust respirator. Be sure to use an approved/certified respirator or equivalent. Splash goggles.

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.

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