

**This product uses electrolysis method which results**  
**.in pure liquid caustic soda and free of metal impurities**  
**%33-%30 It is marketed in two types as liquid with**  
**standard and conventional 364 according to ISIRI %50-%48 and**  
**caustic soda of industrial consumer units as well**  
**.purity %99.5 as flake caustic soda in**

**.Physical specifications: Colorless and odorless liquid**

**.Easily soluble in cold water**

**Stability and reactions:It is stable and absorbs air carbon**  
**dioxide rapidly and reacts strongly with organic and inorganic**  
**.materials**

**Handling and storage: Keep away from heat and incompatible**  
**.material. It release sever heat next to water**

**Environmental precautions: In case of leakage collect by dirt and**  
**.sand and clean with thin acetic acid**

**Packing and delivery: Truck, drums or IBC**





|              |                                 |
|--------------|---------------------------------|
| NaOH         | 50 %± 2                         |
| 1% Max       | Na <sub>2</sub> CO <sub>3</sub> |
| 60ppm Max    | NaCl                            |
| ND           | Hg                              |
| 5ppm Max     | Fe                              |
| Heavy Metals | ND                              |



## Safety Data Sheet

| Section 1. Identification                      |   |   |
|--|---|---|
| <b>Product Identifier</b>                      | <b>Sodium Hydroxide (Caustic Soda) Liquid</b>   | <b>Version: 7</b><br><b>Effective Date: 25 January 2021</b> |
| <b>Other Means of Identification</b>           | Caustic soda  |   |
| <b>Initial Supplier Identifier</b>             | Chemfax Products Ltd.<br>11444 – 42 Street SE<br>Calgary, AB T2C 5C4<br>Tel: 403-287-2055 |   |
| <b>Recommended Use and Restrictions On Use</b> | Metal finishing, cleaning agent, chemical processing. No restrictions.                    |   |
| <b>Product Family</b>                          | Inorganic base  |   |
| <b>Emergency Phone</b>                         | 1-855-887-2055 Monday - Friday 8:00am - 4:30pm MST  |   |

| Section 2. Hazard Identification          |  |
|---|--|
| <b>Hazard Classification</b>              |     |
| <b>Physical Hazards</b>                   | Corrosive to Metals – Category 1   |
| <b>Health Hazards</b>                     | Skin Corrosion/Irritation – Category 1<br>Eye Damage/Irritation – Category 1<br>Specific Target Organ Toxicity (Single Exposure) – Category 3  |
| <b>Environmental Hazards</b>              | Hazardous To The Aquatic Environment – Short Term (Acute) Hazard – Category 3  |
| <b>Signal Word</b>                        | Danger   |
| <b>Hazard Statement</b>                   | May be corrosive to metals. Causes severe skin burns and serious eye damage. May cause respiratory irritation or may cause drowsiness or dizziness. Harmful to aquatic life.   |
| <b>Precautionary Prevention Statement</b> | Keep in original packaging only. Do not inhale dust or mist. Wash hands thoroughly after handling. Wear protective gloves, clothing, and eye & face protection. Use only outdoors, or in a well-ventilated area. Avoid release to the environment. |
| <b>Precautionary Response Statement</b>   | Absorb spillage to prevent material damage.<br>IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  |





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|   |  |
|---|--|
|   | <p>IF ON SKIN (or hair): Immediately remove all contaminated clothing. Rinse skin with water or shower if on clothing. Launder contaminated clothing before reuse.</p> <p>IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a doctor.</p> <p>Specific Treatment: Do not induce vomiting unless directed by medical personnel.</p> <p>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor.</p> |
| <b>Precautionary Storage Statement</b>  | Store locked up. Store in a well-ventilated place. Keep container tightly closed.  |
| <b>Precautionary Disposal Statement</b> | Dispose of contents/container in accordance with local regulations.  |
| <b>Other Hazards</b>                    | None   |

### Section 3. Composition / Information on Ingredients

| Chemical Name    | Common Name or Synonyms | CAS NO. and Other Unique Identifier | % by weight |
|------------------|-------------------------|-------------------------------------|-------------|
| Sodium hydroxide | Caustic soda            | 1310-73-2                           | 30-60       |

### Section 4. First-Aid Measures

|   |   |
|---|---|
| <b>Eye Contact</b>  | Flush eyes with water for 15 minutes. Seek medical attention.   |
| <b>Skin Contact</b>   | Flush area with water. If irritation persists, seek medical attention. Launder clothing before reuse. |
| <b>Inhalation</b>   | Remove victim to fresh air. If there is difficulty breathing, seek immediate medical attention.       |
| <b>Ingestion</b>  | Remove victim to fresh air. If there is difficulty breathing, seek immediate medical attention.       |
| <b>Most Important Symptoms and Effects Both Acute and Delayed</b> | Irritation, nausea, headache, shortness of breath, lachrymator.                                       |
| <b>Immediate Medical Attention and Special Treatment</b>          | Treatment based on sound judgement of physician and individual reactions of the patient.              |





## Safety Data Sheet

| Section 5. Fire-Fighting Measures                                     |   |
|---|---|
| <b>Suitable and Unsuitable Extinguishing Media</b>                    | Use extinguishing media suitable for surrounding fire.<br>NOTE: Do not direct a solid stream of water or foam into burning molten material, this may cause spattering and spread the fire. Contact with water or moisture may generate enough heat to ignite combustibles. Reacts with metals to form combustible hydrogen gas. |
| <b>Hazardous Combustion Products</b>                                  | Oxides of sodium.   |
| <b>Specific Hazards Arising From the Product</b>                      | Combustion products may include oxides of carbon and other toxic vapours. Thermal decomposition can lead to release of irritating gases and vapours. Corrosive to metals with the production of hydrogen gas.   |
| <b>Special Protective Equipment and Precautions For Fire-Fighters</b> | Firefighters should wear self-contained breathing apparatus and full protective clothing. Use water spray to cool containers and structures exposed to fire.  |

| Section 6. Accidental Release Measures                                     |  |
|--|--|
| <b>Personal Precautions, Protective Equipment and Emergency Procedures</b> | Gloves, coveralls, chemical resistant footwear, and safety glasses. Keep unprotected persons away. Ensure adequate ventilation. Contain spilled material by diking. Transfer to a disposal or recovery container.  |
| <b>Environmental Precautions</b>   | Do not allow spilled material to enter sewers and surface watercourses.  |
| <b>Methods and Materials For Containment and Clean-Up</b>                  | Pump or mop up, place in an appropriate container for disposal. Isolate spill, then dike the area to contain the spill. Dilute the spill with large amounts of water and neutralize with a weak acid solution. Collect liquid for proper disposal. Flush area with water to remove residues. |

| Section 7. Handling and Storage      |   |
|--------------------------------------|---|
| <b>Precautions For Safe Handling</b> | Handle with care – Corrosive material. Avoid contact with eyes, skin and clothing. Empty containers may contain hazardous residues.                 |
| <b>Conditions For Safe Storage</b>   | Store in a cool dry place. Keep containers closed when not in use. Protect containers from physical damage. Store away from incompatible materials. |



## Safety Data Sheet

### Section 8. Exposure Controls / Personal Protection

| Control Parameters                         | TWA: 8 Hr  | STEL: 15 min | Ceiling | IDLH *               |
|--|--|--------------|---------|----------------------|
| Sodium hydroxide                           | 2 mg/m <sup>3</sup><br>(ACGIH)                           |              |         | 10 mg/m <sup>3</sup> |
| * Immediately Dangerous to Life and Health |  |              |         |                      |
| Exposure Controls                          | Local exhaust ventilation                                |              |         |                      |
| Appropriate Engineering Controls           | Ensure safety shower and eye wash station are available. |              |         |                      |
| Individual Protective Measures             | Should be worn if exposure limits are exceeded:          |              |         |                      |
| Eye / Face Protection                      | Safety glasses   |              |         |                      |
| Skin Protection                            | Chemical resistant coveralls and gloves                  |              |         |                      |
| Respiratory Protection                     | Air purifying respirator fitted with HEPA filters        |              |         |                      |

### Section 9. Physical and Chemical Properties

|  |                         |
|--|-------------------------|
| Appearance                                       | Clear colourless liquid |
| Odour  | No odour                |
| Odour Threshold                                  | No data.                |
| pH   | 14                      |
| Flash Point                                      | Not applicable          |
| Boiling Point and Boiling Range                  | 115 – 140 °C            |
| Melting Point and Freezing Point                 | 1 - 12 °C               |
| Evaporation Rate                                 | Not applicable          |
| Flammability (solid, gas)                        | Not applicable          |
| Upper and Lower Flammability or Explosive Limits | No data                 |
| Vapour Pressure                                  | Not applicable          |
| Vapour Density                                   | Not applicable          |
| Relative Density                                 | 1.33 – 1.53             |
| Solubility                                       | Soluble                 |
| Partition co-efficient, n-Octanol/Water          | No data                 |
| Auto-ignition Temperature                        | Not applicable          |
| Decomposition Temperature                        | No data                 |
| Viscosity  | No data                 |





## Safety Data Sheet

| Section 10. Stability and Reactivity      |   |
|---|---|
| <b>Reactivity</b>                         | Reacts violently with acids.  |
| <b>Chemical Stability</b>                 | Stable.   |
| <b>Possibility of Hazardous Reactions</b> | Will not occur  |
| <b>Conditions to Avoid</b>                | Excessive heat and moisture.  |
| <b>Incompatible Materials</b>             | Common metals and their alloys, acids, acid anhydrides, oxidizing materials. Water can cause violent and explosive reactions. |
| <b>Hazardous Decomposition Products</b>   | Not expected to decompose under normal conditions of use.   |

| Section 11. Toxicological Information                            |   |             |                 |
|--|---|-------------|-----------------|
| Component Toxicity   | LD50 Oral   | LD50 Dermal | LC50 Inhalation |
| Potassium hydroxide  | 500mg/kg (Rabbit)   |             |                 |
| <b>Likely Routes of Exposure</b>                                 |   |             |                 |
| <b>Skin:</b>   | Can cause severe chemical burns with blistering.  |             |                 |
| <b>Eyes:</b>   | Can cause redness, tearing, and pain. May induce ulceration of the corneal epithelium, severe eye damage causing blindness.                       |             |                 |
| <b>Inhalation:</b>   | Causes severe respiratory irritation. High concentrations may cause lung damage.  |             |                 |
| <b>Ingestion:</b>  | May cause burns of the mouth, throat and stomach. May cause pain, nausea, vomiting and diarrhoea. Severe scarring of tissue and death may result. |             |                 |
| <b>Acute Toxicity Estimates (ATE)</b>                            | Not classified  |             |                 |
| <b>STOT (Specific Target Organ Toxicity) – Single Exposure</b>   | Not classified  |             |                 |
| <b>Aspiration Toxicity</b>                                       | May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.                   |             |                 |
| <b>STOT (Specific Target Organ Toxicity) – Repeated Exposure</b> | Not classified  |             |                 |
| <b>Skin Corrosion / Irritation</b>                               | Causes severe burns   |             |                 |
| <b>Serious Eye Damage / Irritation</b>                           | Corrosive   |             |                 |
| <b>Respiratory or Skin Sensitization</b>                         | Does not cause skin sensitization.  |             |                 |
| <b>Carcinogenicity</b>   | Not listed.   |             |                 |





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|                                 |                |
|---------------------------------|----------------|
| <b>Reproductive Toxicity</b>    |                |
| - Sexual Function and Fertility | Not classified |
| - Development of Offspring      | Not classified |
| - Effects on or via Lactation   | Not classified |
| <b>Germ Cell Mutagenicity</b>   | Not classified |
| <b>Interactive Effects</b>      | None known     |
| <b>Other Information</b>        | None available |

|   |   |
|---|---|
| <b>Section 12. Ecological Information</b> |   |
| <b>Ecotoxicity</b>                        | LC50: 1149 mg/l (Rainbow trout) LC50: 152 mg/l (Chinook salmon)                                 |
| <b>Persistence and Degradability</b>      | Will not persist  |
| <b>Bioaccumulative Potential</b>          | No data   |
| <b>Biodegradability</b>                   | No data   |
| <b>Mobility in Soil</b>                   | Not available   |
| <b>Other Adverse Effects</b>              | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment |

|   |   |
|---|---|
| <b>Section 13. Disposal Information</b> |   |
| <b>Disposal Information</b>             | Dispose of contents/container in accordance with local regulations. |

|  |                           |
|--|---------------------------|
| <b>Section 14. Transport Information</b> |                           |
| <b>UN Number</b>                         | 1824                      |
| <b>UN Proper Shipping Name</b>           | Sodium hydroxide solution |
| <b>Transport Hazard Class(es)</b>        | 8                         |
| <b>Packaging Group</b>                   | II                        |
| <b>Environmental Hazards</b>             | Not applicable            |
| <b>Bulk Transport</b>                    | Not applicable            |
| <b>Special Precaution</b>                | Not applicable            |
| <b>DOT Erg#</b>                          | 154                       |



## Safety Data Sheet

| Section 15. Regulatory Information |   |
|------------------------------------|---|
| <b>Canada – DSL Inventory</b>      | All components of this product are either on the Domestic Substances List (DSL), Non-Domestic Substances List (NDSL), or exempt |
| <b>TSCA</b>                        | All components of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt                   |
| <b>Additional Information</b>      | None  |

| Section 16. Other Information   |   |
|---|---|
| <b>NFPA Rating</b>  | Health-3/ Flammability-0/Reactivity-1/Special Hazard-Not applicable     |
| <b>HMIS Rating</b>  | Health-3/Flammability-0/Reactivity-1/Personal Protection-See Section 8. |
| <b>Prepared by:</b>   | Chemfax Products Ltd., Technical Department                             |
| <b>Date Prepared:</b>   | 7 July, 2011  |
| <b>Date of Latest Revision:</b>   | 25 January 2021   |
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