



15185 Main Street  
Lemont, IL 60439

# Material Safety Data Sheet

## Sodium Hypochlorite

1. Product & Company Identification	3. Composition / Ingredients												
<p>Product Name: Sodium Hypochlorite Solution            Chemical Formula: NaOCl            Distributor: KA Steel Chemicals Inc.                              15185 Main Street                              Lemont, IL 60439                              630-257-3900            Revision Date: February 6, 2009            CAS #: 7681-52-9            Emergency Numbers: CHEMTREC 1-800-424-9300            Product Information: KA Steel Chemicals 800-677-8335</p>	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;"><u>COMPONENT</u></th> <th style="text-align: left; border-bottom: 1px solid black;"><u>CAS#</u></th> <th style="text-align: left; border-bottom: 1px solid black;"><u>CONCENTRATION</u></th> </tr> </thead> <tbody> <tr> <td>Sodium Hypochlorite</td> <td>7681-52-9</td> <td>5 – 20 %</td> </tr> <tr> <td>Sodium Hydroxide</td> <td>1310-73-2</td> <td>0.3 – 5 %</td> </tr> <tr> <td>Water</td> <td>7732-18-5</td> <td>Balance</td> </tr> </tbody> </table>	<u>COMPONENT</u>	<u>CAS#</u>	<u>CONCENTRATION</u>	Sodium Hypochlorite	7681-52-9	5 – 20 %	Sodium Hydroxide	1310-73-2	0.3 – 5 %	Water	7732-18-5	Balance
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2. Hazard Identification	4. First Aid Measures												
<p><b>DANGER – CORROSIVE LIQUID</b></p> <p>Is chemical listed as a carcinogen or potential carcinogen? NTP- NO IARC – NO OSHA – NO</p> <p><b><u>POTENTIAL HEALTH EFFECTS</u></b></p> <p><b>Primary routes of exposure:</b> Skin and eyes contact, inhalation, ingestion.</p> <p><b>Inhalation:</b> Breathing of mist may cause irritation of upper respiratory tract.</p> <p><b>Ingestion:</b> Ingestion may cause irritation of the membranes of the mouth &amp; throat, stomach pain and possible ulceration.</p> <p><b>Skin Contact:</b> May cause moderate skin irritation. Prolonged exposure may cause burns and/or blistering.</p> <p><b>Eye Contact:</b> May cause severe and possible permanent damage.</p>	<p><b>Inhalation:</b> Move person to fresh air. If breathing is difficult, give oxygen. Call a physician.</p> <p><b>Eye contact:</b> Immediately flush eyes with plenty of water for at least 15 minutes, while removing contaminated clothing and shoes. Hold eyelids open during this flushing with water. Do not attempt to neutralize with acidic solutions. Seek medical attention immediately, preferably from an Ophthalmologist.</p> <p><b>Ingestion:</b> If swallowed, give at least 3-4 glasses of water or milk. Do not induce vomiting. Do not give anything by mouth to an unconscious or convulsing person. Get medical attention.</p> <p><b>Skin Contact:</b> Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if irritation develops.</p>												



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<h3 style="margin: 0;">5. Fire Fighting Information</h3> <p><b>Fire:</b> Not Flammable</p> <p><b>Fire Extinguishing Media:</b> Use extinguishing agents appropriate for surrounding fire.</p> <p><b>Fire Hazards:</b> Heat and/or acid contamination may generate toxic chlorine gas.</p>	<h3 style="margin: 0;">8. Exposure Controls / Personal Protection cont.</h3> <p><b>Exposure Limits -</b>     <u>OSHA PEL</u>     <u>ACGIH ceiling</u> Sodium Hydroxide         2mg / m<sup>3</sup>         2mg / m<sup>3</sup></p> <p><b>PPE Requirement:</b> Should be based upon a hazard assessment. Recommendation for areas with splash potential:</p> <p><b>Skin Protection Requirements:</b> Wear impervious protective clothing; including boots; gloves; lab coat; apron or coveralls to prevent skin contact. Preferred Materials: Nitrile, Neoprene, PVC.</p> <p><b>Eye Protection Requirements:</b> Use chemical safety goggles and face shield impervious to product. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in immediate work area.</p> <p>NOTE: ALL PROTECTIVE EQUIPMENT MUST CONFORM WITH 29 CFR 1910.132.</p>
<h3 style="margin: 0;">6. Accidental Release Measures</h3> <p>Steps to be taken if material is spilled or released: Dike area to contain spill. Keep from flowing into drains and other areas where mixing with other chemicals may occur. Only trained and properly protected personnel should be involved in response actions. Reclaim and reuse spilled material if possible. Do not attempt to pH neutralize as this may release toxic chlorine gas ! See Section 13 for disposal considerations.</p>	
<h3 style="margin: 0;">7. Handling &amp; Storage</h3> <p>Store and handle in containers suitable lined with or constructed of materials specified for this product. Keep separate from incompatibles. Vent tank away from work areas. Label all tanks, pipelines and offload connections.</p>	<h3 style="margin: 0;">9. Physical &amp; Chemical Properties</h3> <p><b>Appearance:</b> Light greenish –yellow liquid</p> <p><b>Vapor Pressure:</b> 17 mm Hg. @ 68° F ( 20° C)</p> <p><b>Specific Gravity:</b> 1.26 @ 68 F</p> <p><b>Freeze Point:</b> About –16 ° F ( 16% by weight)</p> <p><b>Solubility:</b> Complete in water</p> <p><b>pH of Solutions:</b> Basic (12)</p> <p><b>Odor:</b> Pungent, irritating, that of household bleach</p>
<h3 style="margin: 0;">8. Exposure Controls / Personal Protection</h3> <p><b>Ventilation Requirements:</b> Local exhaust - to meet the exposure requirements and avoid creating mist or dust formation.</p> <p><b>Personal Respirators: ( NIOSH Approved) -</b> Dust/mist respirators recommended for all personnel working in or about an area of potential mist exposure. If material decomposes, chlorine air cartridges (acid gas) will be necessary. Supplied are must be considered for high levels of chlorine exposure.</p>	



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<p><b>10. Exposure Controls/ Personal Protection</b></p> <p><b>Stability:</b> Stable under ordinary conditions of use and storage. Slowly decomposes on contact with air. Rate increases with product concentration and temperature.</p> <p><b>Hazardous Decomposition Products:</b> Chlorine. Additional decomposition products include sodium chloride, sodium chlorate and oxygen.</p> <p><b>Hazardous Polymerization:</b> This substance does not polymerize.</p> <p><b>Incompatibility: (Materials to Avoid):</b> May react violently with acids, oxidizing materials, reducing agents, ammonia compounds and most organic compounds (including greases, oils, and fuels). Reacts rapidly with aluminum, tin, zinc, nickel, copper, bronze and brass.</p>	<p style="text-align: center;"><b>14. Transportation Information</b></p> <p>Department of Transportation Information <b>Proper Shipping Name:</b> Hypochlorite Solutions <b>Hazard Classification:</b> 8 <b>Identification Number:</b> UN 1791 <b>Packing Group:</b> II or III depending on concentration <b>Label Required:</b> CORROSIVE <b>Reportable Quantity:</b> 100 Lbs (Sodium Hypochlorite)</p>
<p style="text-align: center;"><b>11. Toxicological Information</b></p> <p><b>SKIN IRRITATIONS:</b> Corrosive.</p> <p><b>EYE IRRITATIONS:</b> Corrosive.</p> <p><b>ACUTE ORAL LD 50:</b> (rat) 8.91 g/kg (12% solution) Slight to very low toxicity.</p> <p><b>CARCINOGENICITY STATUS:</b> This product is NOT listed as a carcinogen or suspected carcinogen by NTP, IARC, ACGIH, or OSHA.</p>	<p style="text-align: center;"><b>15. Regulatory Information</b></p> <p><b>TSCA:</b> Sodium Hypochlorite is on the TSCA inventory under CAS. NO.1310-73-2.</p> <p><b>OSHA:</b> Listed as a “Hazardous Chemical” as defined in CFR 1910.1200 (Hazcom).</p> <p><b>EUROPE EINECS:</b> This product is listed on EINECS.</p> <p><b>CANADA DSL:</b> This product is listed on the Canadian DSL.</p> <p><b>AUSTRALIA AIC:</b> This product is listed on AICS</p> <p><b>KOREA ECL:</b> This product is listed on KECL.</p> <p><b>JAPAN MITI ( ENCS):</b> This product is listed on ENCS.</p> <p><b>CANADIAN REGULATIONS (WHMIS) – Class E</b> Corrosive material</p> <p><b>SARA TITLE III:</b> SARA ( 311,312) HAZARD CLASS: Acute Health. SARA ( 313) CHEMICALS: Not Listed SARA Section 302: Not listed as an Extremely Hazardous Substance</p>
<p style="text-align: center;"><b>12. Ecological Information</b></p> <p>LC50: 0.07 mg./l ( 48 hr. Rainbow Trout) LC50: 5.9 mg./l (96hr. Fathead Minnow)</p>	<p style="text-align: center;"><b>16. Other Information</b></p> <p><b>NFPA / HMIS Ratings:</b> Health– 3    Flammability – 0    Reactivity-0</p> <p>The information contained herein is provided in good faith and is believed to be correct as of the date hereof. However, K.A. Steel Chemicals, Inc. makes no representation as to the comprehensiveness or accuracy of the information. It is expected that individuals receiving information will exercise their independent judgment in determining its appropriateness for a particular purpose. Accordingly, K.A. Steel Chemicals will not be responsible for damages of any kind resulting from the use of or reliance upon such information. No representation, or warranties, either express or implied, of merchantability fitness for a particular purpose or of any nature are made hereunder with respect to the with respect to the product to which the information refers.</p>
<p style="text-align: center;"><b>13. Disposal Consideration</b></p> <p><i>DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER.</i></p> <p>Reuse or reprocess if possible. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterization and compliance with applicable laws are the responsibility solely of the waste generator.</p>	