VIKING CHEMICAL COMPANY

Safety Data Sheet

1 – PRODUCT and COMPANY IDENTIFICATION

PRODUCT NAME: ..... SODIUM HYPOCHLORITE, SOLUTION
PRODUCT NUMBER:.....07905
CHEMICAL NAME/CLASS/SYNONYMS: .....SODIUM HYPOCHLORITE SOLUTION

RECOMMENDED USE: ..... SWIMMING POOL CHLORINATOR, HARD SURFACE CLEANER, MILDECIDE, WATER TREATMENT CHEMICAL, BIOCIDES, BLEACH SOLUTIONS AND BLEACH FIXER SOLUTIONS

DISTRIBUTOR:
VIKING CHEMICAL
1827 - 18TH AVENUE
P.O. BOX 1595
ROCKFORD, IL 61110
(815) 397-0500

EMERGENCY PHONE: ..... (800) 424-9300 (CHEMTREC)

2 – HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

Substance or Mixture Corrosive to Metal (1)
Acute Aquatic Toxicity (3) Chronic Aquatic Toxicity (2)
Skin Corrosion/Irritation (1)
Target Organ Toxicity (respiratory tract irritation)- Single Exposure (3)

GHS LABEL:

SIGNAL WORD: ..... Danger

HAZARD STATEMENTS:

H290: May be corrosive to metals
H314: Causes severe skin burns and eye damage
H335: May cause respiratory irritation
H400: Very toxic to aquatic life
H411: Toxic to aquatic life with long lasting effects

PRECAUTIONARY STATEMENTS:

P280: Wear protective gloves/protective clothing/eye protection/face protection
P260: Do not breathe dust/fume/gas/mist/vapours/spray
P271: Use only outdoors or in a well-ventilated area
P264: Wash exposed area thoroughly after handling.
P234: Keep only in original packaging.
P273: Avoid release to the environment

P301+330+331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P303+361+353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P305+351+338: 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/doctor/physician
P363: Wash contaminated clothing before reuse
P390 : Absorb spillage to prevent material damage. Collect spillage

P403+233: Store in a well ventilated place. Keep container tightly closed
P405: Store locked up
P406: Store in a corrosion resistant container with a resistant inner liner.

P501: Dispose of contents/container to comply with local, state and federal regulations

3 – COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE/MIXTURE: MIXTURE

CHEMICAL NAME	**CAS NUMBER**	**Wt/Wt%**
SODIUM HYPOCHLORITE	7681-52-9	5-17%
SODIUM HYDROXIDE	1310-73-2	0.3-5%

4 – FIRST-AID MEASURES

INHALATION:..... Remove the victim into fresh air. Respiratory problems: Seek immediate medical attention.

EYE CONTACT: ..... Rinse eyes gently with water for at least 15 minutes while holding eyelids apart. Remove contact lenses, if present and easy to do - continue rinsing. Seek immediate medical attention.

SKIN CONTACT: ..... Remove contaminated clothing. Wash exposed area with water for at least 15 minutes. Seek medical attention. Wash contaminated clothing before reuse.

INGESTION: ..... Rinse mouth.If individual is drowsy or unconscious, do not give anything by mouth. Do not induce vomiting. If vomiting occurs, the head should be kept low to prevent aspiration of liquid into the lungs. If possible, do not leave individual unattended. Seek immediate medical attention.

NOTE TO PHYSICIANS: ..... Treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. With eye exposure, continue flushing during transport to hospital.

5 – FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: ..... Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2). Do not use water jet as an extinguisher, as this will spread the fire. Do not use dry extinguishing media that contains ammonium compounds.

UNUSUAL FIRE AND EXPLOSION HAZARDS: ..... During fire, gases hazardous to health may be formed.

SPECIAL FIRE FIGHTING PROCEDURES: ..... Use standard firefighting procedures and consider the hazards of other involved materials. Exercise caution when fighting any chemical fire.

6 – ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: ... Wear protective equipment.

ENVIRONMENTAL PRECAUTIONS: ..... Prevent contamination of soil, drains or surface water, use appropriate containment method to avoid environmental contamination.

MEASURES FOR CONTAINMENT AND CLEANING UP: Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills in original containers for re-use. For waste disposal, see Section 13 of the SDS.

7 – HANDLING and STORAGE

PRECAUTIONS FOR SAFE HANDLING: ..... Wear appropriate personal protective equipment. Do not get in eyes, on skin, on clothing. Use with adequate ventilation. Observe good industrial hygiene practices. Do not apply heat or direct sunlight. Temperature and product concentration affect product quality and decomposition rates.

PRECAUTIONS FOR SAFE STORAGE, INCLUDING INCOMPATIBILITIES: Keep container tightly closed. Store in a cool and well-ventilated place. Store in a corrosive resistant container. Consult container manufacturer for additional guidance. Store away from and do not mix with incompatible materials such as acids, oxidizers, organics, reducing agents, and all metals except titanium.

8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS:

COMPONENT (CAS NUMBER): Sodium hydroxide (1310-73-2)
ACGIH ..... 2 mg/m3 Ceiling
OSHA ..... 2 mg/m3 PEL
NIOSH ..... 2 mg/m3 Ceiling

COMPONENT (CAS NUMBER): Sodium hypochlorite (7681-52-9)
WEEL ..... 2 mg/m3 STEL

APPROPRIATE ENGINEERING CONTROLS: ..... Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

PERSONAL PROTECTIVE EQUIPMENT:

RESPIRATORY PROTECTION: . .....If exposure limits are exceeded, NIOSH approved respiratory protection should be worn. A NIOSH approved respirator for organic vapors is generally acceptable for concentrations up to 10 times the PEL. For higher concentrations, unknown concentrations and for oxygen deficient atmospheres, use a NIOSH approved air-supplied respirator. Engineering controls are the preferred means for controlling chemical exposures. Respiratory protection may be needed for non-routine or emergency situations. Respiratory protection must be provided in accordance with OSHA 29 CFR 1910.134.

SKIN PROTECTION: ....Wear appropriate chemical resistant gloves. Wear appropriate chemical resistant clothing. Reports indicate that sodium hypochlorite can react with various fabrics usually increasing with concentration. Reactions vary significantly depending on strength of chemical, material, fabric treatment and color of dyes. FRC treated cotton has a stronger response than plain cotton. Poly blend fabrics and meta aramid fabric have a weaker response than natural fibers. Contact the Personal Protective Equipment manufacturer for specific information about their products.

EYE PROTECTION: ....Wear safety glasses with side shields (or goggles) and a face shield. Wear a full-face respirator, if needed.

ADDITIONAL MEASURES:..... .....Ensure that eyewash stations and safety showers are close to the workstation location.

9 – PHYSICAL / CHEMICAL PROPERITES

APPEARANCE/ODOR: ..... Liquid / Pungent Odor
ODOR THRESHOLD:……. 0.9 mg/m³
pH:……. 12 - 14 (25 °C/77 °F)
MELTING/FREEZING POINT: -4 °F (-20 °C) (7% solution)
BOILING POINT/RANGE: ..... N.A.
FLASH POINT:..... N.A.
EVAPORATION RATE:..... N.A.
FLAMMABILITY: ..... N.A.
LOWER EXPLOSIVE LIMIT: .. N.A.
UPPER EXPLOSIVE LIMIT: .... N.A.
VAPOR PRESSURE:…… 12 mm Hg (20°C/68°F)
VAPOR DENSITY (AIR=1):..... N.A.
SPECIFIC GRAVITY OR RELATIVE DENSITY:....N.A.
SOLUBILITY(IES):..... Completely miscible
PARTITION COEFFICIENT: ... N.A.
AUTOIGNITION TEMP: ..... N.A.
DECOMPOSITION TEMP: ..... N.A.

10 – STABILITY and REACTIVITY

STABILITY:..... The product is stable and non-reactive under normal conditions of use, storage and transport.

POSSIBILITY OF HAZARDOUS REACTIONS:..... Hazardous polymerization does not occur.

CONDITIONS TO AVOID: ..... Contact with incompatible materials. Avoid ultraviolet (UV) light sources. Excessive heat. Reacts violently with strong acids. Acid contact will produce chlorine gas. Amine contact will produce chloramines.

INCOMPATIBLE MATERIALS: .....Strong oxidizing agents. Acids. Metals. Organic compounds. Ammonia.
HAZARDOUS DECOMPOSITION PRODUCTS:.....No hazardous decomposition products are known.

11 – TOXICOLOGICAL INFORMATION

ROUTES OF EXPOSURE: ..... Inhalation, ingestion, skin and/or eye contact.
SYMPTOMS OF EXPOSURE:
SKIN CONTACT: ..... Causes skin burns.
EYE CONTACT: ..... Causes eye burns.
INHALATION: ..... Vapors and spray mist may irritate throat and respiratory system and cause coughing.
INGESTION: ..... Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract.

ACUTE TOXICITY:..... Occupational exposure to the substance or mixture may cause adverse effects.
LD/LC50 VALUES THAT ARE RELEVANT FOR CLASSIFICATION:
ORAL LD50 ..... Rat 3 - 5 g/kg
DERMAL LD50 ..... Rabbit > 2 g/kg
INHALATION LC50 ..... N.A.
ADDITIONAL TOXICOLOGICAL INFORMATION:
CARCINOGENIC CATEGORIES: .....This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

12 – ECOLOGICAL INFORMATION

ECOTOXICITY (AQUATIC AND TERRESTRIAL, WHERE AVAILABLE):
Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Product Species Test Results
Sodium Hypochlorite Solution 5-17% (CAS Mixture)
Aquatic

Crustacea	LC50	Daphnia	1 mg/l
Fish	LC50	Bluegill (Lepomis macrochirus)	0.6 mg/l, 48 hour

* Estimates for product may be based on additional component data not shown.

PERSISTENCE AND DEGRADABILITY: .....No data is available on the degradability of this product.
BIOACCUMULATIVE POTENTIAL:.....No data available for this product.
MOBILITY IN SOIL: ..... N.A.
OTHER ADVERSE EFFECTS: . No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13 –DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Product should be disposed in an environmentally safe manner in accordance with local, state and federal regulations.

UNCLEANED PACKAGING: 'Empty' containers retain residue (liquid and/or vapor) and may be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS OR OTHER SOURCES OF IGNITION: THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to clean since residue is difficult to remove. 'Empty' drums should be completely drained, properly bunged and should be disposed of in an environmentally safe manner and in accordance with local, state and governmental regulations. For work on tanks, please refer to Occupational Safety and Health Administration regulations. ANSI Z49.1, and other governmental and industrial references pertaining to cleaning, repairing, welding, or other governmental and industrial contemplated operations.

14 – TRANSPORTATION INFORMATION

UN/NA NUMBER: UN1791
UN PROPER SHIPPING NAME: .....HYPOCHLORITE SOLUTIONS
TRANSPORT HAZARD CLASS: 8
PACKAGING GROUP : III
MARINE POLLUTANT: ..... Yes
REPORTABLE QUANTITY:..... N.A.
SPECIAL PRECAUTIONS: ..... N.A.

15 – REGULATORY INFORMATION

Contents of this SDS comply with the OSHA Hazard Communication Standard 29CFR 1910.1200

EPA SARA Title III Chemical Listings:

SECTION 311/312:
Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SECTION 302: Not regulated.

SECTION 313: Not regulated.

OTHER FEDERAL REGULATIONS:

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List: Not regulated.
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130): Not regulated.
Safe Drinking Water Act (SDWA): Not regulated.

TSCA STATUS: ..... Not listed.

16 – OTHER INFORMATION

PREVIOUS SDS REVISION DATE: 5/28/15

ABBREVIATIONS AND ACRONYMS:
ACGIH - American Conference of Governmental Industrial Hygienists
CAS - Chemical Abstract Service Number
DOT – U.S. Department of Transportation
IDLH – Immediately dangerous to life and health
N.A. – Not Available
NIOSH - National Institute of Occupational Safety and Health
NTP - National Toxicology Program
OSHA - Occupational Safety and Health Administration
PEL – Permissible exposure Limit
ppm – Parts per million
RCRA – Resource Conservation and Recovery Act
SARA – Superfund Amendments and Reauthorization Act
TLV – Threshold Limit Value
TSCA – Toxic Substances Control Act

DISCLAMER: The information contained herein is accurate to the best of our knowledge. No warranty of any kind, expressed or implied, concerning the safe use of this material in your process or in combination with other substances.