

2. HAZARDS IDENTIFICATION

Appearance: Banana **Physical State** Liquid **Odor** Pungent, chlorine like odor

Classification

Skin Corrosion/Irritation	Category 1A
Eye Damage	Category 1A
Acute Toxicity	Category 3
Skin Sensitization	Category 1
Mutagenicity	Category 1A
Carcinogenicity	Category 1B
Reproductive / Developmental	Category 1A
Target Organ Toxicity	Category 1

Signal Word

DANGER



Hazard Statements

Extremely corrosive irritant. Causes severe skin burns and eye damage. Harmful if swallowed or inhaled. Can cause blindness, permanent scarring, and death.

Precautionary Statements – Prevention

Wear chemical-splash goggles, chemical-resistant protective gloves, and footwear. Do not get in eyes, or on skin and clothing. Do not breathe vapors or mist. Do not eat, drink or smoke when using this product. Keep container closed.

Precautionary Statements Response

IF IN EYES: Rinse continuously with copious amounts of water for several minutes. Contact physician immediately.

IF ON SKIN: Take off contaminated clothing immediately. Rinse skin with water for several minutes. Seek medical attention if needed.

IF INGESTED: Rinse mouth. DO NOT INDUCE VOMITING. If conscious drink milk or water to dilute if tolerated. Seek medical attention.

IF INHALED: Remove person from contaminated area, and move to fresh air. Seek medical attention.

Precautionary Statements – Storage

Store in the original corrosive resistant container. Store in a well ventilated storage area. Keep locked up. KEEP OUT OF REACH OF CHILDREN

Precautionary Statements – Disposal

Dispose of contents and container in accordance with federal, state, and local laws.

Other Hazards

KEEP OUT OF REACH OF CHILDREN.
Harmful to marine life.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight%
[SODIUM HYPOCHLORITE 10%]	[7681-52-9]	[< 10]
H	H	H
H	H	H
H	H	H

4. FIRST-AID MEASURES**First Aid Measures**

IF IN EYES: [Rinse cautiously with water for several minutes. Contact a physician immediately.]

IF ON SKIN: [Take off contaminated clothing immediately. Rinse skin with water for several minutes. Seek medical attention if needed.]

IF INGESTED: [Rinse mouth. DO NOT INDUCE VOMITING. If conscious drink milk or water to dilute if tolerated. Seek medical attention.]

IF INHALED: [Remove person from contaminated area, and move to fresh air. Seek medical attention.]

Most Important Symptoms and Effects

Symptoms [Can cause severe burns to skin and eyes. May cause blindness without immediate first aid. May cause irritation to respiratory system if concentrated vapors are inhaled. Harmful if swallowed. Can cause serious burns to mouth, throat, and stomach.]

Indication of any immediate medical attention and special treatment needed

Notes to physician [Treat symptomatically]

5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

CO₂ or foam. Select an extinguisher suitable to fire size. |

Unsuitable Extinguishing Media

No restrictions based on chemical hazards |

Specific Hazards Arising from the Chemical

In the event of a fire, wear full protective clothing and NIOSH approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. |

Hazardous Products Arising from Combustion:

Oxides of carbon and other fumes. |

Protective equipment and precautions for firefighters

Wear a Self-Contained Breathing Apparatus and full protective gear as conditions warrant. |

6. ACCIDENTAL RELEASE MEASURES**Personal Precautions, Protective Equipment and Emergency Procedures****Personal Precautions**

Evacuate area and personnel from area. |

Eye/Face Protection:

Anti-splash safety goggles. |

Skin and Body Protection:

Chemical resistant rubber gloves, apron, or lab coat |

Respiratory Protection:

Wear a suitable respirator, when mist or vapors are present. |

Environmental Precautions

Prevent spill from entering into drains, sewers, or surface water ways. Ventilate area of leak or spill. Isolate hazard area. |

Methods and Material for containment and cleaning up**Methods for Containment**

Dike area to contain spill |

Methods for Clean-up

Pump spilled product into a properly labeled container. Absorb remaining product with approved absorbent or sand. Place in an approved container for proper disposal. Always dispose of waste in accordance with all federal, state, and local laws.

7. HANDLING AND STORAGE**Precautions for safe handling****Advice on safe handling**

Handle in accordance with good industrial hygiene and safety practices. Use personal protection as recommended in Section 8. Avoid contact with skin, and eyes. Avoid inhalation of concentrated vapors. |

Conditions for safe storage, including any incompatibilities**Storage Conditions**

Keep away from incompatible materials. Store in original corrosive resistant container. Store in a well ventilated storage area. Keep locked up.
KEEP OUT OF THE REACH OF CHILDREN. |

Incompatible Materials

Do not store near acids, heat, oxidizable materials, or organics. |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Appropriate Engineering Controls

Engineering Controls None required. General room ventilation is typically adequate.]

Individual protection measures, such as personal protective equipment

Eye/Face Protection Anti-splash safety goggles.]

Skin and Body Protection Chemical resistant rubber gloves, apron, or lab coat.]

Respiratory Protection Wear a suitable respirator, when concentrated mist or vapors are present.]

General Hygiene Considerations Wash contaminated clothing before reuse. Wash face, hands and any exposed skin thoroughly after handling.]

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid]	Odor	Pungent, chlorine-like odor]
Appearance	Banana Colored Liquid]	Odor Threshold	Not Determined]
Color	Banana Colored]		

<u>Property</u>	<u>Values</u>	<u>Remarks - Method</u>
pH	12-13]	
Melting Point/ Freezing Point	-18.3°C / 0°F]	
Boiling Point/ Boiling Range	Approx. 103.8°C / 219°F]	
Flash Point	N/A]	
Evaporation Rate	N/A]	
Upper Flammability Limits	N/A]	
Lower Flammability Limit	N/A]	
Vapor Pressure	(mm HG) 6.6@50°C]	(mm GHZ)
Vapor Density	N/A]	
Specific Gravity	1.2]	(H ₂ O = 1)
Water Solubility	Complete]	
Solubility in other solvents	N/A]	
Partition Coefficient	N/A]	
Auto-ignition Temperature	N/A]	
Decomposition Temperature	N/A]	
Kinematic Viscosity	N/A]	
Dynamic Viscosity	N/A]	
Explosive Properties	N/A]	
Oxidizing Properties	N/A]	

10. STABILITY AND REACTIVITY**Reactivity**

Mixing with incompatibles can release heat, and gases. |

Chemical Stability

Stable under normal conditions. Slowly decomposes on contact with air.

The rate increases with the concentration and temperature. |

Possibility of Hazardous Reactions

Stable under normal conditions |

Hazardous Polymerization

Hazardous polymerization does not occur. |

Conditions to Avoid

Contact with strong acids, amphoteric metals, mineral acids, excessive heat, and direct sunlight. |

Incompatible Materials

Ammonia (chloramine gas may evolve), Strong Acids. Amphoteric Metals. |

Hazardous Decomposition Products

Emits toxic fumes of chlorine when heated to decomposition. Sodium oxide at high temperatures. |

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	Corrosive Liquid
Eye Contact	Can cause severe burns to eyes and surrounding tissue.
Skin Contact	Can cause severe burns to skin.
Inhalation	Can cause corrosive effects to nose, throat, and respiratory system.
Ingestion	Can cause serious damage to mouth, throat, and stomach.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
SODIUM HYPOCHLORITE 7681-52-9	10 mg (Rabbit)	H	H
H	H	H	H
H	H	H	H
H	H	H	H
H	H	H	H

Information on physical, chemical and toxicological effects

Symptoms	Can cause severe burns to skin and eyes. May cause blindness without immediate first aid. May cause irritation to respiratory system if concentrated vapors are inhaled. Harmful if swallowed. Can cause serious burns to mouth, throat, and stomach.
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity	The table below indicated whether each agency has listed any ingredient as a carcinogen. However, the product as whole has not been tested. Group 3 IARC components are "not classifiable as human carcinogens".
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Chemical Name	ACGIH	IARC	OSHA
SODIUM HYPOCHLORITE	(TLV) 2mg/m 3 Threshold Limit Value	Category 3	(PEL) Permissible Exposure Limit

IARC (International Agency for Research on Cancer)
N/A

Numerical Measures of toxicity

N/A

12. ECOLOGICAL INFORMATION**Ecotoxicity**

[This material will not harm biological sewage treatment work in normal use.]

Component Information

Chemical Name	Algae/ Aquatic Plants	Fish	Toxicity to microorganisms	Crustacea
[N/A]	[N/A]	[N/A]	[N/A]	[N/A]

Persistence/Degradability

[N/A]

Bioaccumulation

[N/A]

Mobility

[N/A]

Other Adverse Effects

[N/A]

13. DISPOSAL CONSIDERATIONS**Waste Treatment Methods**

Disposal of Wastes |Dispose of contents in accordance with federal, state, and local laws.|

Contaminated Packaging |Dispose of container in accordance with federal, state, and local laws. |

14. TRANSPORT INFORMATION**DOT / IMDG / TDG:**

|UN1791, SODIUM HYPOCHLORITE SOLUTION, CLASS 8, PG III |

15. REGULATORY INFORMATION**International Inventories**

|Not Determined|

US Federal Regulations

This material, as supplied, contains one or more substances regulated as a hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
HYPOCHLORITE SOLUTION 7681-52-9	N/R	100	1,000 lbs.

EPA CERCLA RQ: |100 |

EPA REGISTERED: |YES |

OSHA HAZARDOUS: |YES|

SARA 311/312 HAZARDS: |ACUTE|

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal regulations, Part 372

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

16. OTHER INFORMATION

<u>HMIS</u>	Health Hazards	Flammability	Physical Hazards	Personal Protection
	[3]	[0]	[1]	[B]

Issue Date [3/10/2018]
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Disclaimer

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End of Safety Data Sheet