

Precautionary Statements – Preventions

Do not breathe dust/fume/gas/mist/vapors/spray
 Wash face, hands and any exposed skin thoroughly after handling
 Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements – Response

Immediately call a POISON CENTER or doctor/physician
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing immediately call a POISON CENTER or doctor/physician
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 Wash contaminated clothing before reuse.
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 Immediately call a POISON CENTER or doctor/physician.
 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

Precautionary Statements – Storage

Store locked up

Precautionary Statements –Disposal

Dispose of contents/container to an approved waste disposal plant.

Other Hazards

Very toxic to aquatic life and long lasting effects
 Very toxic to aquatic life

3. Composition/information on ingredients

<u>Chemical Name</u>	<u>CAS No.</u>	<u>Weight%</u>
Sodium hypochlorite	7681-52-9	<7

4. First aid measures

Eye contact:	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Immediately call a POISON CENTER or doctor/physician.
Skin contact:	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Seek medical attention.
Inhalation:	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
Ingestion:	IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Drink plenty of water or milk immediately. Immediately call a POISON CENTER or doctor/physician.

Most important symptoms and effects:

Symptoms Causes severe skin burns and eye damage. May cause respiratory irritation. Inhalation may cause burns. Ingestion causes acute irritation and burns to the mucous membranes of the mouth, trachea, esophagus and stomach.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media

Using extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media Not determined

Specific Hazards arising from the Chemical

Product is not flammable.

Hazardous Combustion Products None known

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions: Wear protective clothing as described in Section 8 of this safety data sheet

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological information. See Section 13, Disposal Considerations, for additional information

Methods for Containment Prevent further leakage or spillage if safe to do so. Dike spill area and cap leaking container as necessary to prevent further spreading of spilled material. Absorb spilled liquid and suitable material such as dirt or sand.

Methods for Clean-up Pick up and transfer to properly labeled containers.

7. Handling and storage

Precautions for safe handling

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice. Use personal protection recommended in Section 8. Avoid contact with skin, eyes, or clothing. Wash face, dust/fume/gas/vapors/ spray

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed and store in a cool, dry and well-ventilated place. Store locked up. Keep from freezing.

Incompatible Materials Strong mineral acids. Strong acids. Metals. Organic materials. Do not mix with other chemicals or cleaners.

8. Exposure controls/personal protection

Exposure Guidelines

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls**Engineering Controls**

Ensure adequate ventilation, especially in confined areas. Local exhaust ventilation recommended. Eyewash stations. Showers.

Individual-protection measures, such as personal protective equipment**Eye/Face Protection**

Chemical Anti-splash safety goggles

Skin and Body Protection

Rubber gloves. Suitable protective clothing

Respiratory Protection

Ensure adequate ventilation, especially in confined areas. In case of inadequate ventilation wear respiratory protection.

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
Flash Point	Clear yellow liquid
Color	Clear yellowish
Odor	Chlorine
Odor Threshold	Not determined
pH	10-11
Melting Point/Freezing Point	Not determined
Boiling Point/Boiling Range	100 ^o 212 ^o F
Flash Point	Not applicable
Evaporation Rate	Not available
Flammability (Solid, Gas)	Liquid-not applicable
Upper Flammability Limits	Not applicable
Lower Flammability Limit	Not applicable
Vapor Pressure	18 mmHg
Vapor Density	2.5 (Air=1)
Specific Gravity	1.09 (1=Water)
Water Solubility	Completely soluble
Solubility in other solvents	Not determined
Solubility in other solvents	Not determined
Partition Coefficient	Not determined
Auto-ignition Temperatures	Not available
Decomposition Temperatures	Not determined
Kinematic Viscosity	Not determined
Dynamic Viscosity	Not determined
Explosive Properties	Not determined
Oxidizing Properties	Not determined

10. Stability reactivity

Reactivity	Not reactive under normal conditions
Chemical Stability	Stable under recommended storage conditions
Possibility of Hazardous Reactions	None under normal processing
Hazardous Polymerization	Hazardous polymerization does not occur.
Conditions to Avoid	Excessive heat. Avoid direct sunlight. Environment
Incompatible Materials	Strong mineral acids. Strong acids, Organic materials, Do not mix with other chemicals or cleaners.
Hazardous Decomposition Products	None known based on information supplied.

11. Toxicological information

Information on likely routes of exposure

Product Information

Eye Contact	Causes severe eye damage
Skin Contact	Causes severe skin burns
Inhalation	Avoid breathing vapors or mists
Ingestion	Do not taste or swallow

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Water 7732-18-2	>90 mL/kg (Rat)	-	-
Sodium Hypochlorite 7681-52-9	= 8200 mg/kg (Rat)	>10000 mg/kg (Rabbit)	-

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen. However, the product as a whole has not been tested. Group 3 IARC components are “not classifiable as human carcinogens”.

Chemical Name	ACGIH	IARC	NTP	OSHA
Sodium hypochlorite 7681-52-9		Group 3		

IARC (International Agency for Research on Cancer)

Group 3 IARC components are “not classifiable as human carcinogens”

Numerical measures of toxicity

Not determined

12. Ecological information

Exotoxicity

Very toxic to aquatic life with long lasting effects.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Sodium hypochlorite 7681-52-9	0.095:24 h Skeletonema Costatum mg/L EC50	0.06 – 0.11: 96 h Pimephales promelas mg/L LC50 Flow-through 4.5 – 7.6: 96h Pimephales promelas mg/L LC50 static 0.4 – 0.8: 96 h Lepomis macrochirus mg/L LC50 static 0.28 – 1:96 h Lepomis macrochirus mg/L LC50 flow-through 0.05 0.771:96 h Oncorhynchus mykiss mg/L LC50 Flow-through 0.03 – 0.19:96 h Oncorhynchus mykiss mg/L LC50 semi-static 0.18- 0.22: 96 h Oncorhynchus mykiss mg/L LC50 static		2.1: 96 h Daphnia magna mg/L EC50 0.044: 48 H Daphnia magna mg/L EC50 Static

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined

Mobility

Not determined

Other Adverse Effects

Not determined

13. Disposal considerations

Waste of Wastes: Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. Transport information

Regulatory Information	UN number	Proper shipping name	Classes	PG*
DOT Classification	UN1791	Hypochlorite solutions	8	II
IMDG Class	UN1791	Hypochlorite solutions	8	II
IATA-DGR Class	UN1791	Hypochlorite solutions	8	II

Marine Pollutant This material may meet the definition of a marine pollutant

*PG: Packing group

15. Regulatory information**International Inventories**

Not determined

Legend

TSCA-	United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL-	Canadian Domestic Substances List/Non-domestic Substances List
EINECS/ELINCS-	European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS-	Japan Existing and New Chemical Substances
IECSC-	China Inventory of Existing Chemical Substances
KECL-	Korean Existing and Evaluated Chemical Substances
PICCS-	Philippines Inventory of Chemicals and Chemical Substances.

US Federal Regulations**CERCLA**

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

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Sodium hypochlorite 7681-52-9	100 lb.		RQ 100 lb. final RQ RQ 45.4 kg final RQ

SARA 313

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

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Component	CWA – Reportable Quantities	CWA – Toxic Pollutants	CWA – Priority Pollutants	CWA – Hazardous Substances
Sodium hypochlorite 7681-52-9 (<7)	100 lb			X

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Sodium hypochlorite 7681-52-9	X	X	X

16. Other information

NFPA

Health Hazards

Not determined

Flammability

Not determined

Instability

Not determined

Special Hazards

Not determined

HMIS

Health Hazards

1

Flammability

0

Physical Hazards

0

Personal Protection

B

Indicates information that has changed from previously issued version.

Disclaimer

The information provided in the Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet