

Sodium Chlorite Solution SDS, Safety Data Sheet MSDS Sheet, Material Safety Data Sheet

1. PRODUCT & Company Identification

Synonyms: FR-S, FRB-2, FRB-1

CAS No. : 7758-19-2

Molecular Weight : 90.44

Chemical Formula : NaClO₂

Intended Use : Oil & Gas Wells fracturing and Industrial Manufacturing.

Relevant Uses : Precursor for generation of chlorine dioxide gas used in water treatment.

SUPPLIER

Company: Finoric LLC

Address: 8115 Loop 540, Beasley, Texas, 77417 USA

In case of emergency contact:

InfoTrac

US: 1-800-535-5053

International: 352-323-3500

2. Hazards Identification

GHS, Globally Harmonized System Classification in accordance with 29 CFR 1910

Classification according to Regulation (EC) No 1272/2008

Corrosive to Metals Category 1

Health, Acute toxicity, 3 Oral

Health, Acute toxicity, 3 Dermal

Health, Serious eye damage/eye irritation Category 1

Health, Specific target organ toxicity - Single exposure, Category 2

Environmental, Hazards to the aquatic environment - acute hazard, 1

Labeling according GHS USA & Regulation (EC) No 1272/2008

GHS Label Elements	GHS Label Elements	GHS Label Elements
		
Toxic	Health Hazzard	Corrosive

Signal Word: Danger

Hazard Statements:

H290: May be corrosive to metals.

H302: Harmful if swallowed.

H311: Toxic in contact with skin.

H318: Causes serious eye damage.

H373: May cause damage to organs through prolonged or repeated exposure.

H400: Very toxic to aquatic life.

EUH032: Contact with acids liberates very toxic gas.

This is a dilute product. However, it may be handled carefully. It may intensify fire; oxidizer.

Precautionary Statements

P234: Keep only in original container.

P260: Do not breathe dust/fume/gas/mist/vapors/spray.

P264: Wash ... thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P273: Avoid release to the environment.

P280-Wear protective gloves/protective clothing/eye protection/face protection.

P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P302+P352: IF ON SKIN: Wash with soap and water.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312: Call a POISON CENTER or doctor/physician if you feel unwell.

P314: Get Medical advice/attention if you feel unwell.

P330: If swallowed, rinse mouth.

P337+P313 If eye irritation persists: Get medical advice/ attention.

P361: Call a POISON CENTER or doctor/physician if you feel unwell.

P360: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.

P363 : Wash contaminated clothing before reuse.

P390: Absorb spillage to prevent material damage.

P391: Collect spillage.

P404: Store in a closed container.

P405: Store locked up.

P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification according to EU Directives 67/548/EEC or 1999/45/EC:

Xn Harmful, Xi Irritant, C Corrosive, N Dangerous for the environment

R8- Contact with combustible material may cause fire.



R22 Harmful if swallowed

R24 Toxic in contact with skin

R50 Very toxic to aquatic organisms

For the full text of the H-statements & R-phrases mentioned in this Section, see Section 16.

OSHA Hazards: This material is considered hazardous by OSHA.

3. Composition/Information on Ingredients

Ingredient:

Chemical Name & CAS Number		% Range
Sodium Chlorite -- 7758-19-2 <u>EINECS EC code number:</u>		2%-15%
Sodium Chloride - 7647-14-5		0%-5%
Sodium Chlorate - 7775-09-9		0%-3%
Water	7732-18-5	77%-98%

4. First Aid Measures

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: If swallowed, Do not induce vomiting. Give large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Skin Contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing & shoes before reuse. Get medical attention.

Eye Contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

5. Fire Fighting Measures

Fire: Sodium Chlorite solution is not combustible, but substance is a strong oxidizer and its heat of reaction with reducing agents. Heating will release chlorine dioxide or hydrochloric acid.

Explosion: An explosion hazard when mixed with finely powdered organic matter, metal powder or reducing agents.

Fire Extinguishing Media: Use any means suitable for extinguishing surrounding fire.

Special Information: 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. Sealed containers may rupture when heated.

Hazardous Combustible Products : If product is allowed to dry, heat or friction can easily ignite this product. Do not allow this product to dry on cloth or clothing. Oxidation can cause a fire hazard. Hydrogen chloride and Chlorine dioxide will evolve.

6. Accidental Release Measures

Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container.

Large Spill: It is an oxidizing material. Stop leak if without risk. Avoid contact with a combustible material (wood, paper, oil, clothing...). Do not touch spilled material. Prevent entry into sewers. Eliminate all ignition sources.

Evacuation procedures must be placed into effect. Evacuate all non-essential personnel.

Hazardous concentrations in air may be found in local spill area and immediately downwind.

Utilize emergency response personal protective equipment prior to the start of any response. This product may represent an explosion hazard, in the form of explosive chlorine dioxide gas if it contacts acid or chlorine. Remove all sources of ignition, such as flames, hot glowing surfaces or electric arcs. Stop source of spill as soon as possible and notify appropriate personnel. Notify all downstream water users of possible contamination. Spill materials may be absorbed using clay, soil or non-flammable commercial absorbents. Flush spill area with large amounts of water. If allowed to dry, dried material can ignite in contact with combustible materials so do not allow spills to dry up.

Deactivating Materials: Small spills that have been diluted with water can be neutralized with sodium sulphite or sodium bisulphite solutions.

7. Handling and Storage

Keep Sodium Chlorite Solution in a tightly closed container, stored in a cool ventilated area.

Protect against physical damage. Isolate from incompatible substances and heat and sun.

Separate from combustibles, organic or other readily oxidizable materials. Avoid storage on wood floors. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits: - Not established. Maintain Shower, Eye Wash and use under good ventilation only.

Ventilation System: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

Personal Respirators (NIOSH Approved): For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerin, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels

are not known, use a full-face positive-pressure, air-supplied respirator. WARNING: Airpurifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection: Wear protective gloves and clean body-covering clothing.

Eye Protection: Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance: Clear to yellow solution.

Odor: Chlorine odor.

Solubility: Soluble in water.

Specific Gravity: 1.05 to 1.23 @ 20C.

pH: 7 to 13.

% Volatiles by volume @ 21C (70F): NA

Boiling Point: 106C

Melting Point: 0C

Vapor Density (Air=1): No information found

Vapor Pressure (mm Hg): No information found

Evaporation Rate (BuAc=1): No information found

10. Stability and Reactivity

Stability: It is stable under ordinary conditions of use and storage.

Hazardous Decomposition Products: Decomposed by heat, sunlight, and organic substances.

Burning may produce chlorine and its oxide and hydrochloric acid.

Hazardous Polymerization: Will not occur.

Incompatibilities: Reducing agents, organic material and powdered metals, heat, sulfur containing compounds, acids.

Conditions to Avoid: Heat, combustible materials and incompatibles.

11. Toxicological Information

Oral rat LD50: 165 mg/kg on 100% basis.

Carcinogenic Effects: Sodium chlorite is not listed by NTP, IARC, OSHA, EPA or any other authority as a carcinogen.

Mutagenic Effects: Not known.

Teratogenic Effects: Not likely.

Developmental Toxicity: Not available.



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12. Ecological Information

Environmental Fate: Fish Toxicity TL50 (48 hours, Daphnia Magna): 0.29mg/L

Biodegradability: Sodium chlorite in water will eventually degrade to sodium chloride. Sodium chlorite in contact with acidic soil could produce chlorine dioxide.

Environmental Toxicity: This product is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into bodies of water unless in accordance with federal and/or provincial law.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Domestic (Land, D.O.T.)

Proper Shipping Name: CHLORITE SOLUTION

Hazard Class: 8

UN/NA: UN 1908

Packing Group: II

International (Water, I.M.O.)

Proper Shipping Name: CHLORITE SOLUTION

Hazard Class: 8

UN/NA: UN 1908

Packing Group: II

15. Regulatory Information

USA: OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

TSCA: It listed on the TSCA inventory.

SARA Section 302 Extremely Hazardous Substances: Does not have a TPQ.

Section 313: No chemicals are reportable under Section 313.



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Clean Air Act: This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

Clean Water Act: None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

CAS# 7758-19-2 can be found on the following state right to know lists: Massachusetts, New Jersey, Pennsylvania.

California Prop 65: No Significant Risk Level: None of the chemicals in this product are listed.

Canada: WHMIS: C, D1, E

16. Additional Information

European Labeling in Accordance with EC Directives

H290: May be corrosive to metals.

H302: Harmful if swallowed.

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Prepared by AJK on 23 January 2017 - Printed on: 10 April 2017

Disclaimer:

The information and recommendations set forth herein are presented in good faith and believed correct as of the date the SDS was created. It is compiled from various sources and it is not necessarily all inclusive nor fully adequate in every circumstance. In addition, these suggestions should not be confused with nor followed in violation of applicable laws, regulations, rules or insurance requirements applicable. This SDS is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. This shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.
