



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name Cal-Fresh (4126-40)
CAS # Mixture
Product use Deodorizer
Manufacturer Nu-Calgon
2008 Altom Court
St. Louis, MO 63146 US
Phone: 314-469-7000 / 800-554-5499
Emergency Phone: 1-800-424-9300 (CHEMTREC)

2. Hazards Identification

Emergency overview MAY CAUSE SKIN IRRITATION.
MAY CAUSE EYE IRRITATION.

Potential short term health effects

Routes of exposure Eye, Skin contact, Inhalation, Ingestion.

Eyes Based on rabbit studies, product has been given an EPA Toxicity Category IV rating as a mild irritant with minimal effects.

Skin Based on rabbit studies, product is listed as "practically not an irritant".

Inhalation May cause respiratory tract irritation.

Ingestion May cause stomach distress, nausea or vomiting.

Target organs Eyes. Skin.

Chronic effects Prolonged or repeated exposure can cause drying, defatting and dermatitis.

Signs and symptoms Symptoms may include redness, edema, drying, defatting and cracking of the skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

OSHA Regulatory Status This product is NOT known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Potential environmental effects Components of this product have been identified as having potential environmental concerns.

3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
Sodium chlorite	7758-19-2	0.1 - 1

4. First Aid Measures

First aid procedures

Eye contact Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 20 minutes. Obtain medical attention immediately.

Skin contact Immediately flush with water. Wash with soap and water. Obtain medical attention if irritation persists.

Inhalation Remove affected person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Ingestion Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.

Notes to physician Symptoms may be delayed.

General advice If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

5. Fire Fighting Measures

Flammable properties	Not flammable by WHMIS/OSHA criteria.
Extinguishing media	
Suitable extinguishing media	Treat for surrounding material.
Unsuitable extinguishing media	Not available
Protection of firefighters	
Specific hazards arising from the chemical	Not available
Protective equipment for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Hazardous combustion products	May include and are not limited to: Chlorine dioxide gas
Explosion data	
Sensitivity to mechanical impact	Not available
Sensitivity to static discharge	Not available

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
Environmental precautions	Do not discharge into lakes, streams, ponds or public waters.
Methods for containment	Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.
Methods for cleaning up	Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills to original containers for re-use.

7. Handling and Storage

Handling	Use good industrial hygiene practices in handling this material. When using do not eat or drink. Avoid contact with skin and clothing. Avoid contact with eyes. Avoid breathing vapors or mists of this product. Keep container tightly closed. Use only with adequate ventilation. Wash thoroughly after handling.
Storage	Keep out of reach of children. Store in a closed container away from incompatible materials.

8. Exposure Controls / Personal Protection

Exposure limits	
Ingredient(s)	Exposure Limits
Sodium chlorite	ACGIH-TLV Not established OSHA-PEL Not established
Engineering controls	General ventilation normally adequate.
Personal protective equipment	
Eye / face protection	Wear safety glasses with side shields.
Hand protection	Rubber gloves. Confirm with a reputable supplier first.
Skin and body protection	As required by employer code.
Respiratory protection	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

Appearance	Clear
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Color	Colorless
Form	aqueous solution
Odor	Slight Chlorine
Odor threshold	Not available
Physical state	Liquid
pH	7.5 - 9
Melting point	Not available
Freezing point	Not available
Boiling point	213 °F (100.55 °C)
Pour point	Not available
Evaporation rate	Comparable to water
Flash point	Not available
Auto-ignition temperature	Not available
Flammability limits in air, lower, % by volume	Not available
Flammability limits in air, upper, % by volume	Not available
Vapor pressure	23.7 Mm Hg (25°C)
Vapor density	0.02 kg/m ³
Specific gravity	1.01 G/ml (20°C)
Octanol/water coefficient	Not available
Solubility (H ₂ O)	Complete
VOC (Weight %)	< 0.1
Percent volatile	Not available

10. Stability and Reactivity

Reactivity	Reacts violently with acids.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Do not mix with other chemicals.
Incompatible materials	Acids.
Hazardous decomposition products	May include and are not limited to: Chlorine dioxide gas

11. Toxicological Information

Acute effects	Acute LD50: >5000 mg/kg, Rat, Oral Acute LD50: >5000 mg/kg, Rabbit, Dermal Acute LC50: >5.61 mg/l/4h, Rat, Inhalation
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Component analysis - LC50

Ingredient(s)	LC50
Sodium chlorite	0.29 mg/l/4h rat

Component analysis - Oral LD50

Ingredient(s)	LD50
Sodium chlorite	165 mg/kg rat; 300 mg/kg guinea pig; 350 mg/kg mouse

Effects of acute exposure

Eye	Based on rabbit studies, product has been given an EPA Toxicity Category IV rating as a mild irritant with minimal effects.
Skin	Based on rabbit studies, product is listed as "practically not an irritant".
Inhalation	May cause respiratory tract irritation.
Ingestion	May cause stomach distress, nausea or vomiting.
Sensitization	Non-hazardous by WHMIS/OSHA criteria.
Chronic effects	Non-hazardous by WHMIS/OSHA criteria.
Carcinogenicity	Non-hazardous by WHMIS/OSHA criteria.

IARC - Group 3 (Not Classifiable)

Sodium chlorite	7758-19-2	Monograph 52 [1991]
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Mutagenicity	Non-hazardous by WHMIS/OSHA criteria.
Reproductive effects	Non-hazardous by WHMIS/OSHA criteria.
Teratogenicity	Non-hazardous by WHMIS/OSHA criteria.
Name of Toxicologically Synergistic Products	Not available

12. Ecological Information

Ecotoxicity	See below	
Ecotoxicity - Freshwater Fish - Acute Toxicity Data		
Sodium chlorite	7758-19-2	96 Hr LC50 Brachydanio rerio: 100 - 500 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: >100 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: >100 mg/L [static]
Ecotoxicity - Water Flea - Acute Toxicity Data		
Sodium chlorite	7758-19-2	48 Hr EC50 Daphnia magna: 0.026 mg/L; 48 Hr EC50 Daphnia magna: 0.25 - 0.33 mg/L [Flow through]; 48 Hr EC50 Daphnia magna: 0.012 - 0.018 mg/L [Static]
Persistence / degradability	Not available	
Bioaccumulation / accumulation	Not available	
Mobility in environmental media	Not available	
Environmental effects	Not available	
Aquatic toxicity	Not available	
Partition coefficient	Not available	
Chemical fate information	Not available	
Other adverse effects	Not available	

13. Disposal Considerations

Disposal instructions	Dispose in accordance with all applicable regulations.
Waste from residues / unused products	Not available
Contaminated packaging	Not available

14. Transport Information

U.S. Department of Transportation (DOT)	Not regulated as dangerous goods.
Transportation of Dangerous Goods (TDG - Canada)	Not regulated as dangerous goods.

15. Regulatory Information

Canadian federal regulations	This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.	
Canada - WHMIS - Ingredient Disclosure List		
Sodium chlorite	7758-19-2	1 %
WHMIS status	Not Controlled	
Occupational Safety and Health Administration (OSHA)		
29 CFR 1910.1200 hazardous chemical	Yes	
US Federal regulations	This product is NOT known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.	

CERCLA (Superfund) reportable quantity
None

Chlorine dioxide produced by activation is listed under SARA 313.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - No
 Delayed Hazard - No
 Fire Hazard - No
 Pressure Hazard - No
 Reactivity Hazard - No

Section 302 extremely hazardous substance No

Section 311 hazardous chemical No

Clean Air Act (CAA) Not available

Clean Water Act (CWA) Not available

State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

U.S. - Massachusetts - Right To Know List

Sodium chlorite 7758-19-2 Present

U.S. - New Jersey - Right to Know Hazardous Substance List

Sodium chlorite 7758-19-2 sn 1689

U.S. - Pennsylvania - RTK (Right to Know) List

Sodium chlorite 7758-19-2 Present

U.S. - Rhode Island - Hazardous Substance List

Sodium chlorite 7758-19-2 Flammable

Inventory name

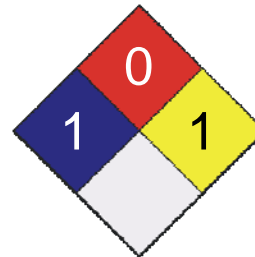
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	/ 1
Flammability	0
Physical Hazard	1
Personal Protection	X



Disclaimer

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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Prepared by Nu-Calgon Technical Service (314) 469-7000

Other information For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.