

Material Safety Data Sheet

Material Name: Sodium Sulfite (Sulphite), Anhydrous

ID: C1-175

*** Section 1 - Chemical Product and Company Identification ***

Part Number: Industrial, Technical, Photo, and Food Grades

Chemical Name: Sodium Sulphite (Sulphite), Anhydrous

Product Use: Commercial use

Synonyms: Disodium Sulfite; Anhydrous Sodium Sulfite; Sulfurous acid, disodium salt.

Supplier Information

Chem One Ltd.

8017 Pinemont Drive, Suite 100

Houston, Texas 77040-6519

Phone #: (713) 896-9966

Fax #: (713) 896-7540

Emergency #: (800) 424-9300 or (703) 527-3887

General Comments: FOR COMMERCIAL USE ONLY; NOT TO BE USED AS A PESTICIDE.

NOTE: Emergency telephone numbers are to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to customer service.

*** Section 2 - Composition / Information on Ingredients ***

CAS #	Component	Percent
7757-83-7	Sodium Sulfite	95 min.

Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Sulfites.

Component Information/Information on Non-Hazardous Components

This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

*** Section 3 - Hazards Identification ***

Emergency Overview

Sodium Sulfite is an odorless solid, found in white crystal or powder forms. Sodium Sulfite is irritating to eyes, skin, respiratory tract, and gastrointestinal tract. May cause allergic skin and respiratory sensitization reactions. Product may release toxic fumes of sulfur dioxide upon addition of mineral acids. If heated to decomposition, it emits toxic fumes of sulfur dioxide and sodium oxide.

Hazard Statements

WARNING! CAUSES EYE, SKIN, RESPIRATORY TRACT, AND GASTROINTESTINAL TRACT IRRITATION. MAY CAUSE ALLERGIC SKIN OR RESPIRATORY SENSITIZATION REACTIONS. HARMFUL IF SWALLOWED. Do not get in eyes, on skin, or on clothing. Do not breathe dusts. Wash thoroughly after handling. Keep container closed. Avoid contact with water, heat, acids, or oxidizing agents. Use only with adequate ventilation.

Potential Health Effects: Eyes

Sodium Sulfite is irritating to the eyes. Symptoms of irritation may include redness, itching or tearing.

Potential Health Effects: Skin

Sodium Sulfite is irritating to the skin. Sodium Sulfite may cause an allergic skin sensitization reaction. Allergic sensitization reaction may be more severe in asthmatics or sulfite sensitive individuals. Symptoms may include redness, itching, or tingling.

Potential Health Effects: Ingestion

Ingestion can cause gastrointestinal irritation, nausea, vomiting, and diarrhea. If ingested, Sodium Sulfite can liberate sulfurous acid in the stomach, causing gastrointestinal irritation, nausea, vomiting, diarrhea, colic, dehydration, drowsiness, stupor, circulatory collapse, and possibly death.

Potential Health Effects: Inhalation

Sodium Sulfite is irritating to the respiratory system. This product may cause an allergic respiratory sensitization reaction, and symptoms may include wheezing, shortness of breath, and tightness in the chest. Allergic sensitization reactions may be more severe in asthmatics or sulfite sensitive individuals. Chronic irritation and inflammation of the respiratory tract and alteration of the sense of smell and taste is not uncommon a result of frequent exposure to 30 to 100 ppm.

HMIS Ratings: Health Hazard: 2* Fire Hazard: 0 Physical Hazard: 1

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

*** Section 4 - First Aid Measures ***

First Aid: Eyes

Immediately flush the contaminated eye with plenty of water for at least 15 minutes. If irritation persists, get medical attention immediately.

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*** Section 4 - First Aid Measures (Continued) ***

First Aid: Skin

Remove all contaminated clothing. For skin contact, wash thoroughly with soap and water for at least 20 minutes. Seek immediate medical attention if irritation develops or persists. Completely decontaminate clothing, shoes, and leather goods before reuse.

First Aid: Ingestion

Seek medical attention. Do not induce vomiting unless directed to do so by medical personnel. Have victim rinse mouth thoroughly with water. Immediately give 8 ounces of water or milk. Never give anything by mouth to a victim who is unconscious or having convulsions.

First Aid: Inhalation

Remove source of contamination or move victim to fresh air. Apply artificial respiration if victim is not breathing. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Administer oxygen if breathing is difficult. Get immediate medical attention.

First Aid: Notes to Physician

Provide general supportive measures.

*** Section 5 - Fire Fighting Measures ***

Flash Point: Not applicable

Method Used: Not applicable

Upper Flammable Limit (UFL): Not available

Lower Flammable Limit (LFL): Not available

Auto Ignition: Not available

Flammability Classification: Not available

Rate of Burning: Not available

General Fire Hazards

Irritating and/or toxic gases may be emitted upon the product's decomposition.

Hazardous Combustion Products

Sulfur dioxide and sodium oxide.

Extinguishing Media

Use any media suitable for the surrounding fire and other materials involved in the fire.

Fire Fighting Equipment/Instructions

Firefighters should wear full protective clothing including self contained breathing apparatus.

NFPA Ratings: Health: 2 Fire: 0 Reactivity: 1 Other: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

*** Section 6 - Accidental Release Measures ***

Containment Procedures

Stop the flow of material, if this can be done without risk. Contain the discharged material. If sweeping of a contaminated area is necessary use a dust suppressant agent, which does not react with product (see Section 10 for incompatibility information).

Clean-Up Procedures

Small releases can be cleaned-up in gloves, goggles and suitable body protection. In case of a large spill (in which excessive dusts can be generated), clear the affected area, protect people, and respond with trained personnel. If a vacuum is used for spill clean-up, only an explosion-proof vacuum should be used, due to the potential for dust explosion. Place all spill residues in an appropriate container and seal.. Thoroughly wash the area after a spill or leak clean-up. Prevent spill rinsate from contamination of storm drains, sewers, soil or groundwater.

Evacuation Procedures

Evacuate the area promptly and keep upwind of the spilled material. Isolate the spill area to prevent people from entering. In case of large spills, follow all facility emergency response procedures.

Special Procedures

Remove soiled clothing and launder before reuse. Avoid all skin contact with the spilled material. Have emergency equipment readily available.

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*** Section 7 - Handling and Storage ***

Handling Procedures

Do not breathe dust. Avoid all contact with skin and eyes. Wherever dust clouds may be generated, eliminate sparks, flames and other ignition sources. Use this product only with adequate ventilation. Periodically wash-down areas where this product is used to avoid dust accumulation. Wash thoroughly after handling.

Storage Procedures

All employees who handle this material should be trained to handle it safely. Open containers slowly on a stable surface. Containers of this product must be properly labeled. Empty containers may contain residual amounts of this product; therefore, empty containers should be handled with care. Keep this product in an air-tight container. Store containers in a cool, dry location, away from direct sunlight and sources of intense heat. Store away from incompatible materials (see Section 10, Stability and Reactivity). Keep container tightly closed when not in use. Inspect all incoming containers before storage to ensure containers are properly labeled and not damaged. Limit quantity of material stored.

*** Section 8 - Exposure Controls / Personal Protection ***

Exposure Guidelines

A: General Product Information

No exposure guidelines have been established.

B: Component Exposure Limits

ACGIH, OSHA, and NIOSH have not developed exposure limits for any of this product's components.

The exposure limits given are for Particulates Not Otherwise Classified.

OSHA: 15 mg/m³ TWA (Total dust)

5 mg/m³ TWA (Respirable fraction)

DFG MAKs 4 mg/m³ TWA (Inhalable fraction)

1.5 mg/m³ TWA (Respirable fraction)

Engineering Controls

Use mechanical ventilation such as dilution and local exhaust. Use a corrosion-resistant ventilation system and exhaust directly to the outside. Supply ample air replacement.

PERSONAL PROTECTIVE EQUIPMENT

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132). Please reference applicable regulations and standards for relevant details.

Personal Protective Equipment: Eyes/Face

Wear safety glasses (or goggles). . If necessary, refer to U.S. OSHA 29 CFR 1910.133.

Personal Protective Equipment: Skin

Wear impervious gloves, boots and coveralls to avoid skin contact. If necessary, refer to U.S. OSHA 29 CFR 1910.138.

Personal Protective Equipment: Respiratory

No specific guidelines are available. If airborne concentrations are above the applicable exposure limits, use NIOSH-approved respiratory protection. An approved dust and mist air-purifying respirator may be adequate. If respiratory protection is needed, use only protection authorized in the U.S. Federal OSHA Standard (29 CFR 1910.134), applicable U.S. State regulations. Oxygen levels below 19.5% are considered IDLH by OSHA. In such atmospheres, use of a full-facepiece pressure/demand SCBA or a full facepiece, supplied air respirator with auxiliary self-contained air supply is required under OSHA's Respiratory Protection Standard (1910.134-1998).

Personal Protective Equipment: General

Wash hands thoroughly after handling material. Do not eat, drink or smoke in work areas. Have a safety shower or eye-wash fountain available.

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*** Section 9 - Physical & Chemical Properties ***

Physical Properties: Additional Information

The data provided in this section are to be used for product safety handling purposes. Please refer to Product Data Sheets, Certificates of Conformity or Certificates of Analysis for chemical and physical data for determinations of quality and for formulation purposes.

Appearance:	White	Odor:	Odorless
Physical State:	Crystal or powder	pH:	9.8 (1% solution)
Vapor Pressure:	Not applicable	Vapor Density:	Not applicable
Boiling Point:	Decomposes	Freezing/Melting Point:	600 deg C (decomposes below melting point)
Solubility (H2O):	49.5g/100 ml @ 20 deg C	Specific Gravity:	2.63 @ 20 deg C (water=1)
Percent Volatile:	Not available	Particle Size:	Not determined
Softening Point:	Not applicable	Evaporation Rate:	Not applicable
Viscosity:	Not applicable	Bulk Density:	Not available
Volatile Organic Carbons:	Not applicable	Molecular Weight:	126.04
		Chemical Formula:	Na2SO3

*** Section 10 - Chemical Stability & Reactivity Information ***

Chemical Stability

Fairly stable. Does not oxidize as readily as the hydrated sulfite.

Chemical Stability: Conditions to Avoid

Heat and moisture.

Incompatibility

This product is a reducing agent and may react with oxidizing agents. This product may release toxic fumes of sulfur dioxide upon addition of mineral acids.

Hazardous Decomposition

Oxides of sulfur, including Sulfur dioxide; Sodium oxide.

Hazardous Polymerization

Will not occur.

*** Section 11 - Toxicological Information ***

Acute Toxicity

A: General Product Information

Contact may cause irritation of the eyes, skin, and respiratory tract. Moderately toxic when ingested. If ingested, sodium Sulfite can liberate sulfurous acid in the stomach, causing gastrointestinal irritation, nausea, vomiting, diarrhea, colic, dehydration, drowsiness, stupor, circulatory collapse, and possibly death. Ingestion of large amounts of Sodium Sulfite, like any sodium salt, could cause an excess of sodium in the body, which is characterized by thirst, restlessness, weakness, headache, dizziness, low blood pressure, delirium, and possible respiratory arrest. Contact may result in allergic skin or respiratory sensitization reactions, which may be more severe in asthmatics or sulfite sensitive individuals. Sulfates and sulfites have caused allergic reactions in sensitized persons, making it possible that some persons may experience skin or respiratory reactions. However dermal sensitization reactions to sodium Sulfite are rare. Sodium Sulfite has caused retarded growth, nerve irritation, atrophy of the bone marrow, depression and paralysis in animals.

B: Component Analysis - LD50/LC50

Sodium Sulfite (7757-83-7)

Oral LD50 Mouse: 820 mg/kg

Carcinogenicity

A: General Product Information

No carcinogenicity data available for this product. Sulfites are not carcinogenic in vivo in rats or mice.

B: Component Carcinogenicity

Sodium Sulfite (7757-83-7)

IARC: Monograph 54; 1992 (related to Sulfites) (Group 3 (not classifiable))

Epidemiology

No epidemiological data is available for this product.

Neurotoxicity

No data available for this product.

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***** Section 11 - Toxicological Information (Continued) *****

Mutagenicity

Sodium Sulfite has been genotoxic in many short-term test systems including causing chromosome aberrations in mouse cells and sperm abnormalities in mice. It has been mutagenic in yeast and *Micrococcus aureus*, but was not mutagenic in the Ames Salmonella/microsome assay. Other genetic studies with sodium Sulfite have shown that it did not induce chromosome aberrations, sister chromatid exchanges or micronuclei in hamsters or mice.

Teratogenicity

No human reproductive hazard data were found for sodium Sulfite. When injected at doses of 1 to 5 mg, sodium Sulfite interfered with meiosis (chromosome separation) in the egg production in mice, cows, and ewes. There were no reproductive effects in a multi-generation study in rats.

Other Toxicological Information

None

***** Section 12 - Ecological Information *****

Ecotoxicity

A: General Product Information

No information available.

B: Aquatic Toxicity

LC50 Mosquito fish (96 hour): 2600 mg/L (in/with freshwater); LC50 *Daphnia Magna* (50 hour): 69 mg/L (in/with freshwater)

Environmental Fate

Oxidizes in air to form sulphates in the environment.

***** Section 13 - Disposal Considerations *****

US EPA Waste Number & Descriptions

A: General Product Information

Product, as shipped, is not listed as a hazardous material by the U.S. EPA.

B: Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions

All wastes must be handled in accordance with local, state and federal regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

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*** Section 14 - Transportation Information ***

NOTE: The shipping classification information in this section (Section 14) is meant as a guide to the overall classification of the product. However, transportation classifications may be subject to change with changes in package size. Consult shipper requirements under I.M.O., I.C.A.O. (I.A.T.A.) and 49 CFR to assure regulatory compliance.

US DOT Information

Shipping Name: Non-regulated.
Hazard Class: Not Applicable
UN/NA #: Not Applicable
Packing Group: Not Applicable
Required Label(s): None
Additional Info.: None.

International Air Transport Association (IATA)

For Shipments by Air transport: We classify this product as hazardous (Class 9) when shipped by air because 49 CFR 173.140 (a). "For the purposes of this subchapter, miscellaneous hazardous material (Class 9) means a material which presents a hazard during transportation, but which does not meet the definition of any other hazard class. This class includes: (a) Any material which has an anesthetic, noxious, or other similar property which could cause extreme annoyance or discomfort to a flight crew member so as to prevent the correct performance of assigned duties."

UN: UN 3077

Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s. (sodium sulfite)

Hazard Class: 9

Packing Group: III

Passenger & Cargo Aircraft Packing Instruction: 911

Passenger & Cargo Aircraft Maximum Net Quantity: 400 kg

Limited Quantity Packing Instruction (Passenger & Cargo Aircraft): Y911

Limited Quantity Maximum Net Quantity (Passenger & Cargo Aircraft): 30 kg

Special Provisions: A97 A149

ERG Code: 9L

International Transportation Regulations

I.M.O. Classification: Sodium Sulfite, Anhydrous is not regulated under I.M.D.G./I.M.O. regulations.

*** Section 15 - Regulatory Information ***

US Federal Regulations

A: General Product Information

No additional information.

B: Component Analysis

None of this product's components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

Sodium Sulfite (7757-83-7)

CERCLA: Final RQ = Not Applicable

SARA 302 (EHS TPQ) There are no specific Threshold Planning Quantities for Sodium Sulfite. The default Federal MSDS submission and inventory requirement filing threshold of 10,000 lbs. (4,540 kg) therefore applies, per 40 CFR 370.20.

C: Sara 311/312 Tier II Hazard Ratings:

Component	CAS #	Fire Hazard	Reactivity Hazard	Pressure Hazard	Immediate Health Hazard	Chronic Health Hazard
Sodium Sulfite	7757-83-7	No	No	No	Yes	Yes

State Regulations

A: General Product Information

Other state regulations may apply.

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*** Section 15 - Regulatory Information (Continued) ***

B: Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS #	CA	FL	MA	MN	NJ	PA
Sodium Sulfite	7757-83-7	No	No	No	No	No	No

Other Regulations

A: General Product Information

Not determined.

B: Component Analysis - Inventory

Component	CAS #	TSCA	DSL	EINECS
Sodium Sulfite	7757-83-7	Yes	Yes	Yes

C: Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Sodium Sulfite	7757-83-7	No disclosure limit

ANSI LABELING (Z129.1):

WARNING! CAUSES EYE, SKIN, RESPIRATORY TRACT, AND GASTROINTESTINAL TRACT IRRITATION. MAY CAUSE ALLERGIC SKIN OR RESPIRATORY SENSITIZATION REACTIONS. HARMFUL IF SWALLOWED. Do not get in eyes, on skin, or on clothing. Do not breathe dusts. Wash thoroughly after handling. Keep container closed. Avoid contact with water, heat, acids, or oxidizing agents. Use only with adequate ventilation. Wear gloves, goggles, faceshields, suitable body protection, and NIOSH-approved respiratory protection, as appropriate. Wash thoroughly after handling. **FIRST-AID:** In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If inhaled, remove to fresh air. If ingested, do not induce vomiting. Get medical attention. **IN CASE OF FIRE:** Use water fog, dry chemical, CO₂, or "alcohol" foam. **IN CASE OF SPILL:** Sweep up material. Place residue in suitable container. Consult Material Safety Data Sheet for additional information.

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***** Section 16 - Other Information *****

Other Information

Chem One Ltd. ("Chem One") shall not be responsible for the use of any information, product, method, or apparatus herein presented ("Information"), and you must make your own determination as to its suitability and completeness for your own use, for the protection of the environment, and for health and safety purposes. You assume the entire risk of relying on this Information. In no event shall Chem One be responsible for damages of any nature whatsoever resulting from the use of this product or products, or reliance upon this Information. By providing this Information, Chem One neither can nor intends to control the method or manner by which you use, handle, store, or transport Chem One products. If any materials are mentioned that are not Chem One products, appropriate industrial hygiene and other safety precautions recommended by their manufacturers should be observed. Chem One makes no representations or warranties, either express or implied of merchantability, fitness for a particular purpose or of any other nature regarding this information, and nothing herein waives any of Chem One's conditions of sale. This information could include technical inaccuracies or typographical errors. Chem One may make improvements and/or changes in the product (s) and/or the program (s) described in this information at any time. If you have any questions, please contact us at Tel. 713-896-9966 or E-mail us at Safety@chemone.com.

Key/Legend

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration

Contact: Sue Palmer-Koleman, PhD

Contact Phone: (713)-896-9966

Revision Log

09/19/00 3:08 PM SEP Changed company name, Sect 1 and 16, from Corporation to Ltd.
12/14/00 2:45 PM SEP Added Industrial Grade, Section 1.
05/14/01 9:31 AM HDF Checked exposure limits; made changes to Sect 9; overall review, add SARA 311/312 Haz Ratings.
08/20/01 4:40 PM CLJ Add Shipments by Air information to Section 14, Changed contact to Sue, non-800 Chemtrec Num.
02/18/02 11:32 AM HDF Up-date of SARA Hazard Ratings.
09/30/03 11:30 PM HDF General review of entire MSDS. Up-graded Section 3 Health Hazard information, HMIS categories. Up-dated exposure limits to Section 8. Up-dated 14 Transportation Information.
06/22/05 1:45 PM SEP Update IATA Section 14
10/22/07 4:29 PM SEP Updated IATA Section 14

This is the end of MSDS # C1-175