



MATERIAL SAFETY DATA SHEET

CATALYZED SODIUM SULFITE

MSDS NUMBER: EUSA-160
CURRENT ISSUE DATE: September, 2007
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1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Catalyzed Sodium Sulfite
OTHER/GENERIC NAMES: Sodium Sulfite, Catalyzed
PRODUCT USE: Water treatment - oxygen removal.
SUPPLIER: Esseco USA LLC
Gatehall IV
4 Gatehall Drive
Parsippany, NJ 07054

FOR MORE INFORMATION CALL: 973-267-3330
(Monday-Friday, 9:00am-4:30pm)
FOR EMERGENCY IN USA, CALL CHEMTREC: 800-424-9300
(24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Odorless, off-white crystals or powder which may irritate the skin. May cause irritation and/or burns to the eyes. Harmful if swallowed or inhaled. May cause severe and possibly fatal allergic reactions if inhaled or swallowed by some asthmatics and other 'sulfite-sensitive' individuals. Reacts with acids to form toxic and irritating sulfur dioxide gas.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT NAME</u>	<u>CAS NUMBER</u>	<u>WEIGHT %</u>
Sodium sulfite	7757-83-7	95+
Sodium sulfate	7757-82-6	<2
Cobalt sulfate	10124-43-3	0.04

Trace impurities and additional material names not listed above may appear in Section 15 of this MSDS. These materials may be listed for local "Right-To-Know" compliance and for other reasons.

OSHA Hazard Communication Standard: *This product is considered hazardous under the OSHA Hazard Communication Standard.*

4. FIRST AID MEASURES

SKIN: Immediately wash skin with plenty of soap and water. Remove contaminated clothing and launder before reuse. Get medical attention if irritation persists.

EYES: Flush eyes immediately with water for at least 15 minutes. Remove contact lenses if present after the first 5 minutes if you can do so easily and continue flushing. Get immediate medical attention.

INHALATION: Promptly remove to fresh air. Get immediate medical attention if signs of suffocation, irritation or other symptoms develop.



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INGESTION: If conscious, immediately rinse mouth with water and give 1 glass of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get immediate medical attention.

ADVICE TO PHYSICIAN: Treat symptomatically. Note potential for anaphylactic shock with allergic individuals.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:

Material is not flammable. Use extinguishing media appropriate for material in surrounding fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Releases toxic and irritating sulfur oxides at fire temperatures.

SPECIAL FIRE FIGHTING PRECAUTIONS/INSTRUCTIONS:

Wear NIOSH-approved self-contained breathing apparatus. Use water-spray to keep containers cool, and to knock down vapors or gases.

6. ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILL OR OTHER RELEASE: (See section 8 for recommended personal protective equipment.)

Promptly sweep up material with minimum dusting and shovel into an empty container with a cover. Rinse spill area with plenty of water. Provide ventilation to clear sulfur dioxide fumes which may be generated by the sodium sulfite component.

Spills and releases may have to be reported to Federal and/or local authorities. See Section 15 regarding reporting requirements.

7. HANDLING AND STORAGE

NORMAL HANDLING: (See section 8 for recommended personal protective equipment.)

Avoid contact with skin, eyes and clothing. Do not breathe dust. Do not eat or drink in the work area. Use normal personal hygiene and housekeeping. Keep away from acids and oxidizing agents.

STORAGE RECOMMENDATIONS:

Store in a cool, dry, well-ventilated area away from acids and oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

Local exhaust if dusty conditions exist or if there is a release of sulfur dioxide gas. Do not use in unventilated spaces.



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PERSONAL PROTECTIVE EQUIPMENT

SKIN PROTECTION: For handling dry material, wear rubber gloves and full work clothing, including long-sleeved shirt and trousers. When handling solutions and there is prolonged or repeated contact, wear impervious gloves, clothing and boots.

EYE PROTECTION: Wear chemical safety goggles.

RESPIRATORY PROTECTION: Where required, use a NIOSH-approved respirator for dust, mist and/or sulfur dioxide gas, as conditions indicate. Some exposures may require a NIOSH-approved self-contained breathing apparatus or supplied-air respirator. Equipment selection depends on contaminant type and concentration. Select in accordance with 29 CFR 1910.134 and good industrial hygiene practice.

ADDITIONAL RECOMMENDATIONS: Eyewash and safety shower are recommended.

EXPOSURE GUIDELINES

<u>INGREDIENT NAME</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>	<u>OTHER LIMIT</u>
Cobalt Sulfate (as Co)	0.02 mg/m ³ TWA	0.1 mg/m ³ TWA	None

OTHER EXPOSURE LIMITS FOR POTENTIAL DECOMPOSITION PRODUCTS:

Sulfur dioxide: OSHA TWA = 5 ppm
ACGIH TLV = 2 ppm
ACGIH STEL = 5 ppm

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Off-white crystals or powder.	
PHYSICAL STATE:	Solid.	
MOLECULAR WEIGHT:	Sodium sulfite - 126.04.	
CHEMICAL FORMULA:	Sodium sulfite - Na ₂ SO ₃	
ODOR:	Odorless.	
SPECIFIC GRAVITY (water = 1.0):	2.63	
SOLUBILITY IN WATER (weight %):	17% at 50°F; 28% at 92°F	
pH:	5% solution - 9.8	
BOILING POINT:	Not applicable.	
MELTING POINT:	Decomposes at 1652°F	
VAPOR PRESSURE:	Not applicable.	
VAPOR DENSITY (air = 1.0):	Not applicable.	
EVAPORATION RATE:	Not applicable.	COMPARED TO: Not applicable.
% VOLATILES:	Not applicable.	
FLASH POINT:	Not flammable	
FLASH POINT METHOD:	Not applicable	
AUTOIGNITION TEMPERATURE:	Not applicable	
UPPER FLAME LIMIT (volume % in air):	Not applicable	
LOWER FLAME LIMIT (volume % in air):	Not applicable	
FLAME PROPAGATION RATE (solids):	Not applicable	
OSHA FLAMMABILITY CLASS:	Not applicable	



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10. STABILITY AND REACTIVITY

NORMALLY STABLE? (CONDITIONS TO AVOID):

Normally stable. Avoid high temperatures (at decomposition, 1652°F); yields sulfur dioxide gas and hazardous residue.

INCOMPATIBILITIES:

Strong oxidizers: causes vigorous exothermic reactions.
Acids: releases sulfur dioxide gas.

HAZARDOUS DECOMPOSITION PRODUCTS:

Sulfur dioxide and sodium sulfide residue. Sodium sulfide is flammable, a dangerous fire risk, a strong irritant to skin and tissue, and is incompatible with acids.

HAZARDOUS POLYMERIZATION:

Will not occur.

11. TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH HAZARDS

- SKIN:** Dust or mist may cause skin irritation from prolonged contact. Solutions will cause skin irritation.
- EYES:** Dust or mist may irritate or burn the eyes. Solutions will cause irritation or burns to the eyes.
- INHALATION:** Inhalation of dust or mist can irritate the respiratory tract. May cause severe or deadly allergic reactions in some asthmatics and sulfite sensitive individuals. Possible signs and symptoms of allergic reactions include bronchoconstriction, sweating, flushing, hives, rapid heart rate, decreased blood pressure, and anaphylaxis.
- INGESTION:** Ingestion may irritate the gastrointestinal tract. Estimated to be moderately toxic. May cause severe allergic reactions in some asthmatics. Large doses may cause violent colic and diarrhea, circulatory disturbances, central nervous system depression, and even death.
- DELAYED EFFECTS:** None known.

Ingredients found on one of the three OSHA designated carcinogen lists are listed below.

<u>INGREDIENT NAME</u>	<u>NTP STATUS</u>	<u>IARC STATUS</u>	<u>OSHA LIST</u>
Cobalt Sulfate	Reasonably Anticipated to be a Carcinogen	2B	No

TOXICITY DATA:

Immediate (Acute) Effects:

Sodium sulfite - LD₅₀ (oral, mouse) = 820 mg/kg

Delayed (Subchronic and Chronic) Effects:

Sodium sulfite has been demonstrated to be mutagenic in microbial systems; however, it is not mutagenic in studies involving insects and is not considered to present a mutagenic threat to multicell organisms.



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Other Data:
None

12. ECOLOGICAL INFORMATION

The following ecotoxicity data is available for Sodium sulfite:

Daphnia magna LC50 48 hrs	440 mg/L
Western Mosquitofish 96hrs LC50	460 mg/L
Biological Oxygen Demand (BOD)	0.12 lb/lb, instantaneous

The following ecotoxicity data is available for Sodium sulfate:

Daphnia magna LC50 48hrs	2,564 mg/L
Western Mosquitofish 96hrs LC50	3,710 mg/L

Not classified as hazardous to aquatic organisms.

13. DISPOSAL CONSIDERATIONS

RCRA

Is the unused product a RCRA hazardous waste if discarded? No

If yes, the RCRA ID number is: Not applicable.

OTHER DISPOSAL CONSIDERATIONS:

Dispose of in accordance with applicable Federal, State and Local regulations.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

14. TRANSPORT INFORMATION

US DOT HAZARD CLASS:	Not regulated.
US DOT ID NUMBER:	Not applicable.
PROPER SHIPPING NAME:	Not applicable.

For additional information on shipping regulations affecting this material, contact the information number found in Section 1.

15. REGULATORY INFORMATION

TOXIC SUBSTANCES CONTROL ACT (TSCA)

TSCA INVENTORY STATUS: All components are listed on TSCA Inventory of Chemical Substances.

OTHER TSCA ISSUES: None.

SARA TITLE III/CERCLA

"Reportable Quantities" (RQs) and/or "Threshold Planning Quantities" (TPQs) exist for the following ingredients.

INGREDIENT NAME

No ingredients listed in this section.

SARA/CERCLA RQ (lb)

SARA EHS TPQ (lb)





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Spills or releases resulting in the loss of any ingredient at or above its RQ requires immediate notification to the National Response Center [(800) 424-8802] and to your Local Emergency Planning Committee. Many states have more stringent regulations. Report all spills in accordance with local, state and federal regulations.

SECTION 311 HAZARD CLASS: Acute Health

SARA 313 TOXIC CHEMICALS:

The following ingredients are SARA 313 "Toxic Chemicals" and may be subject to annual reporting requirements. CAS numbers and weight percents are found in Section 2.

INGREDIENT NAME

Cobalt sulfate (cobalt compounds)

COMMENT

Present at below the 0.1% de-minimus level

STATE RIGHT-TO-KNOW

In addition to the ingredients found in Section 2, the following are listed for state right-to-know purposes.

INGREDIENT NAME

Cobalt Sulfate

WEIGHT %

0.04%

COMMENT

CA-Prop 65 Carcinogen

ADDITIONAL REGULATORY INFORMATION:

None

WHMIS CLASSIFICATION (CANADA):

D2B

FOREIGN CHEMICAL CONTROL INVENTORY STATUS:

Listed on Canadian DSL, Australian AICS, Phillipines PICCS, Chinese IECSC, Japanese MITI, Korean KECL, and EU EINECS.

16. OTHER INFORMATION

CURRENT ISSUE DATE: September, 2007

PREVIOUS ISSUE DATE: September, 2004

CHANGES TO MSDS FROM PREVIOUS ISSUE DATE ARE DUE TO THE FOLLOWING:

Updated format, updated sections 2, 4, 5, 6, 8, 9, 11, 12, 15 for updated information.

OTHER INFORMATION: None

The information in this Material Safety Data Sheet is believed to be accurate and reliable as of the date issued. Esseco USA makes no warranties, expressed or implied, including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose or course of performance or usage of trade. Accordingly, Esseco USA will not be responsible for damages resulting from use of or reliance upon this information. The user is responsible for determining whether the Esseco USA product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application on an Esseco USA product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the Esseco USA product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.