SODIUM METABISULFITE

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Sodium Metabisulfite

OTHER/GENERIC NAMES: Sodium Pyrosulfite
ABS

PRODUCT USE AND RESTRICTIONS ON USE: Drug manufacture, food additive, water treatment, textile manufacture, photographic chemicals, and other chemical processes.

SUPPLIER:
Esseco USA LLC
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

GHS Classification

Acute Toxicity Category 4 (Oral)
Eye Damage Category 1

Label Elements:

DANGER

Harmful if swallowed.
Causes serious eye damage.

Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear eye protection.
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.
IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
Rinse mouth.

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Dispose of contents and container in accordance with local, state, and federal regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS NUMBER	WEIGHT %
Sodium metabisulfite	7681-57-4	≥97

Trace impurities and additional material names not listed above may appear in Section 15 of this SDS. These materials may be listed for local "Right-To-Know" compliance and for other reasons. The exact concentrations are a trade secret.

4. FIRST AID MEASURES

SKIN: 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: Remove to fresh air. Get immediate medical attention if signs of suffocation, irritation, difficulty breathing, or other symptoms develop.

INGESTION: Rinse mouth with water and give 1 glass of water to drink. Do not induce vomiting unless directed to do so be medical personnel. Get medical attention if symptoms develop.

MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED: 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. Releases sulfur dioxide if heated above 150°C (302°F).

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT, IF NEEDED: Immediate medical attention is required for eye contact and allergic respiratory reaction. Treat symptomatically. Note potential for anaphylactic shock with allergic individuals.

5. FIRE FIGHTING MEASURES

SUITABLE (AND UNSUITABLE) EXTINGUISHING MEDIA:
Material is not flammable. Use extinguishing media appropriate for material in surrounding fire.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL:
Releases toxic and irritating sulfur dioxide at fire temperatures.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTING:
Wear NIOSH-approved self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

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PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES: Provide ventilation to clear sulfur dioxide fumes which may be generated by contact with water. Wear appropriate personal protective equipment.

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

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Promptly sweep up material with minimum dusting and shovel into an empty container with a cover. Rinse spill area with plenty of water.

7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE 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 water, ice, acids, heat and oxidizing agents. For Food Grade product, see precautions in section 16 regarding on-board use in preserving shrimp and fish.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:
Store in a cool, dry, well-ventilated area away from water, ice, acids, and oxidizing agents. Releases sulfur dioxide gas slowly at ambient temperatures.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE GUIDELINES

INGREDIENT NAME	ACGIH TLV	OSHA PEL	OTHER LIMIT
Sodium metabisulfite	5 mg/m^3 TWA	None	None

OTHER EXPOSURE LIMITS FOR POTENTIAL DECOMPOSITION PRODUCTS:
Sulfur dioxide: OSHA TWA = 5 ppm
ACGIH STEL = 0.25 ppm

APPROPRIATE ENGINEERING CONTROLS:
Local exhaust if dusty conditions exist or if there is a release of sulfur dioxide gas. Do not use in unventilated spaces, e.g., the holds of fishing boats, walk-in coolers or confined spaces.

INDIVIDUAL PROTECTION MEASURES, SUCH AS 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.

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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.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Fine, white granular material.		
PHYSICAL STATE:	Solid.		
ODOR:	Pungent sulfur dioxide odor.		
ODOR THRESOLD:	Not determined.		
MOLECULAR WEIGHT:	190.11		
CHEMICAL FORMULA:	$Na_2S_2O_5$		
RELATIVE DENSITY (water = 1.0):	1.48		
SOLUBILITY IN WATER (weight %):	39% at 16°C (60.8°F)		
pH:	1% solution – 4.3		
INITIAL BOILING POINT/RANGE:	Not applicable.		
MELTING/FREEZING POINT:	Begins to rapidly decompose above 150°C (302°F)		
VAPOR PRESSURE:	Not applicable.		
VAPOR DENSITY (air = 1.0):	Not applicable.		
EVAPORATION RATE:	Not applicable.	**COMPARED TO:**	Not applicable.
% VOLATILES:	Not applicable.		
PARTITION COEFFICIENT (N-OCTANOL/WATER):	Not determined.		
VISCOSITY:	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.		
DECOMPOSITION TEMPERATURE:	Not determined.		
FLAMMABILITY (SOLID, GAS)	Not flammable.		
OSHA FLAMMABILITY CLASS:	Not applicable.		

10. STABILITY AND REACTIVITY

REACTIVITY:
Not normally reactive

CHEMICAL STABILITY:
Normally stable.

POSSIBILITY OF HAZARDOUS REACTIONS:
Reacts with acids to form toxic and irritating sulfur dioxide gas.

CONDITIONS TO AVOID:
Avoid elevated temperatures. Temperatures above 150°C (302°F) cause the rapid evolution of toxic and corrosive sulfur dioxide gas.

INCOMPATIBILITIES:

Oxidizers: may cause strong exothermic reactions.
Acids, water and ice: releases sulfur dioxide gas which is toxic, corrosive, and potentially deadly. Water and/or ice speeds the production of 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.

11. TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH HAZARDS

ACUTE EFFECTS OF EXPOSURE:

SKIN:	Repeated or prolonged contact with dust may cause irritation. Contact with solutions will cause skin irritation and possibly burns.
EYES:	Dust or mist may irritate or burn the eyes. Solutions will irritate or burn. Permanent eye injury is possible.
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. Contact with acids, water and/or ice, releases sulfur dioxide gas which may be harmful or deadly if inhaled.
INGESTION:	May irritate the gastrointestinal tract. May cause severe or deadly allergic reactions in some asthmatics and sulfite sensitive individuals. Very large doses may cause violent colic, diarrhea, depression, and even death.
CHRONIC EFFECTS:	None known.

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

INGREDIENT NAME	NTP STATUS	IARC STATUS	OSHA LIST
No ingredients listed in this section.	----	----	----

NUMERICAL MEASURES OF TOXICITY:

Immediate (Acute) Effects:

Sodium metabisulfite – LD_{50} (oral, rat) = 1131 – 3200 mg/kg

Delayed (Subchronic and Chronic) Effects:

Sodium metabisulfite is not mutagenic in microbial systems or in rat bone marrow metaphase assay or dominant lethal test in rats. A 2 year feeding study in rats was negative for carcinogenicity. In a three generation feeding study in rats, no adverse effects on reproduction was observed.

Other Data:

None

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12. ECOLOGICAL INFORMATION

ECOTOXICITY:
The following ecotoxicity data is available for Sodium metabisulfite:

Daphnia EC50 48h	89 mg/L
Fish LC50 96h	32 mg/L
Algae EC50 72h	48 mg/L

PERSISTENCE AND DEGRADBILITY:
Chemical Oxygen Demand (COD) 168 mg/g

BIOACCUMULATIVE POTENTIAL:
No data available

MOBILITY IN SOIL:
No data available

OTHER ADVERSE EFFECTS:
No data available.

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.

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SARA TITLE III/CERCLA

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

INGREDIENT NAME	SARA/CERCLA RQ (lb)	SARA EHS TPQ (lb)
No ingredients listed in this section.	----	----

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: See OSHA Hazard Classification in Section 2.

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	COMMENT
No ingredients listed in this section.	----

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	WEIGHT %	COMMENT
No ingredients listed in this section.	----	----

CALIFORNIA PROPOSITION 65

This product does not contain any ingredients known to the State of California to cause cancer and/or reproductive harm.

ADDITIONAL REGULATORY INFORMATION:

None

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: April, 2017
PREVIOUS ISSUE DATE: November, 2013

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

Removed old WHMIS classification system.

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OTHER INFORMATION: Only NF grade is for use in drug formulation. Only Food Grade material is for use as a food additive.

On-board ship use of Food Grade material to preserve shrimp and fish:
NEVER apply dry material to shrimp or fish. ALWAYS prepare and use a solution in a well-ventilated area.
NEVER use below deck or in any confined space such as a hold or cooler. Injury or death may occur.
ALWAYS use on deck with plenty of ventilation. Follow mixing and use directions printed on bag.

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