

Material Safety Data Sheet

Effective Date: December 3, 2008

1. IDENTIFICATION OF THE PRODUCT AND THE COMPANY

Product Name: BIO/TEC 095
Chemical Family: Proprietary mixture
Manufactured By: Southwest Engineers
Supplier: Coolant Control, Inc.
5353 Spring Grove Ave
Cincinnati, OH 45217
Telephone: (513) 471-8770
Fax: (513) 242-4488
Emergency Number: (800) 424-9300 - Chemtrec

Health = 3
Fire = 1
Reactivity = 0
Special = C

Hazard Ratings:

0 = Least
1 = Slight
2 = Moderate
3 = High
4 = Extreme
C = Corrosive

2. HAZARDOUS INGREDIENTS

Product composition contains the following hazardous components reportable under OSHA Regulation 29 CFR 1910.1200:

Component	CAS #	% Weight
2-n-Octyl-4-isothiazolin-3-one	26530-20-1	45 - 47
Propylene glycol	57-55-6	53 - 55

3. PHYSICAL DATA

Boiling Point: 188°C/370°F
Specific Gravity (Water = 1): 1.03 (25°C)
pH: 1.5 - 3.0
Viscosity: 40 cps (20°C)
Vapor Density (Air = 1): Not known
Water Solubility: 480 mg/l
Percent Volatile (by weight): 100%
Evaporation Rate (BAc = 1): Not known
Vapor Pressure: 0.1 (20°C)
Physical State: Liquid
Appearance and Odor: Clear light yellow liquid with a mild odor

4. HAZARDS IDENTIFICATION

Primary Routes of Entry:	Skin, Inhalation, Eye, Ingestion
Effects of Overexposure:	Based on the available animal toxicity information for a closely related material, it is anticipated that this material will product severe skin or eye irritation and/or burns and possible irreversible damage upon direct or prolonged contact. Inhalation of mists of this product may be harmful. Repeated or prolonged contact with this material may product allergic reactions.
Inhalation:	Inhalation of vapor mist can cause irritation of nose and throat.
Skin:	This material can be harmful if absorbed through the skin. Material can cause severe irritation and burns.
Eyes:	Material can cause corrosion to eyes and irreversible eye injury.
Ingestion:	Material is harmful if swallowed.
Carcinogenicity:	Not listed as a carcinogen by National Toxicological Program, IARC, OSHA

5. EMERGENCY & FIRST AID PROCEDURES

Eye Contact:	Flush eyes with large amounts of running water for at least 15 minutes. Hold eyelids apart to ensure rinsing of the entire surface of the eye and lids with water. Get immediate medical attention. If physician not available, flush for additional 15 minutes and then transport victim to medical care.
Skin Contact:	Wash with large amounts of running water, and soap if available, for 15 minutes. Remove contaminated clothing and shoes. Get immediate medical attention. Wash clothing and decontaminate shoes before reuse.
Inhalation:	Remove from area to fresh air. If not breathing, clear airway and start artificial respiration. If victim is having trouble breathing, give supplemental oxygen, if available. Get immediate medical attention.
Ingestion:	If swallowed, immediately give 3-4 glasses of water. DO NOT induce vomiting. If vomiting occurs, give fluid again. Get immediate medical attention. Have physician determine if patient's condition allows induction of vomiting or evacuation of stomach. Do not give anything by mouth to an unconscious or convulsing person.

6. FIRE AND EXPLOSION HAZARD DATA

Flash Point:	99°C
Auto-ignition Temperature:	371°C
Flammable Limits in Air:	Lower: 2.6% Upper: 12.5%
Recommended Extinguishing Media:	Foam, CO2, dry chemical, water
Special Fire Fighting Procedures:	Must wear NIOSH/MSHA approved self-contained breathing apparatus and protective clothing. Cool fire-exposed containers with water spray.
Unusual Fire/Explosion Hazards:	Products of combustion are toxic. Product is corrosive to skin and to metal. At high temperatures, product may release toxic vapors/mist of hydrogen chloride and isothiazolone compounds.

7. ACCIDENTAL RELEASE MEASURES

Personal Protection:

DANGER! Corrosive material. Floors may become slippery. Wear appropriate protective equipment and NIOSH/MSHA approved respirator where mists or vapors of unknown concentrations may be generated (self-contained breathing apparatus preferred).

Procedures if Material is Spilled or Released:

Dike and contain spill with inert material (sand, earth, etc.) Keep spill out of sewers and open bodies of water. Spill residues, including material transferred to drums, must be deactivated with hypochlorite/bicarbonate mixture. Allow this solution to react for at least 30 minutes. Transfer the liquid and solid separately to containers for disposal. Drums containing deactivated material should not be more than 2/3 full.

Waste:

Dispose of in compliance with all Federal, state and local laws and regulations. Incineration is the preferred method. Material to be disposed of is classified as a D002 hazardous waste with a reportable quantity (RQ) of 100 lbs of total isothiazolinone.

8. HANDLING AND STORAGE

Storage Conditions:

Keep container tightly closed until used. Store in dark colored or opaque containers between 0°C and 50°C in a dark, well-ventilated place. Storage under 30°C is recommended. Do not store in unlined metal containers. Open containers slowly and carefully as there may be some pressure buildup. If product is in vented drums, keep drums upright to prevent leakage of material through the vent.

9. SAFE HANDLING & USE INFORMATION

Respiratory Protection:

In processes where mists or vapors may be generated, a NIOSH/MSHA jointly approved respirator is advised in the absence of proper environmental controls.

Eye Protection:

Wear chemical splash goggles where there is a potential for eye contact. Use safety glasses with side shields under normal use conditions.

Hand Protection:

Rubber or neoprene, to prevent skin contact.

Ventilation:

In processes where mists or vapors may be generated, proper ventilation must be provided in accordance with good ventilation practices.

Other Protective Equipment:

Eye wash; safety shower, protective clothing (long sleeves, coveralls or other, as appropriate), to prevent skin contact.

10. STABILITY & REACTIVITY DATA

Stability:

This product is considered stable.

Incompatibility:

Ammonia, amines, strong reducing or oxidizing agents.

Hazardous Decomposition Products:

Thermal decomposition may produce toxic vapors/fumes of hydrogen chloride, organic materials, and oxides carbon, nitrogen and sulfur.

Hazardous Polymerization:

Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Data: Acute Oral LD50, rat: 270 mg/kg (as 100% active isothiazolinone)
Acute Dermal LD50, rabbit: 311 mg/kg (as 100% active isothiazolinone)
Primary skin irritation: severely irritant
Primary eye irritation: Corrosive
Slightly to moderately irritant (5% a.i. solution)
Not irritant (0.5% a.i. solution)

12. ECOLOGICAL INFORMATION

Environmental Toxicity: LC50 for fish (exposure 96 hours): (mg a.i. / l)
Bluegill sunfish (*lepomis macrochirus*) 0.196
Rainbow trout (*Salmo gairdneri*) 0.065
Chamel catfish (*Ictalurus punctatus*) 0.177

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods: Dispose of in compliance with all Federal, state and local laws and regulation. Incineration is the preferred method. Material to be disposed of is classified as a D002 hazardous waste with a reportable quantity (RQ) of 100 lbs of total isothiazolinone.

14. TRANSPORT INFORMATION

US DOT Hazard Class: Corrosive Liquid, Toxic, N.O.S. (2-n-Octyl-4-isothiazolin-3-one), UN 2922, 8, PG II
Label: Corrosive and Toxic

15. REGULATORY INFORMATION

CERCLA Information (40CFR 302.4): This material is regulated under the Comprehensive Environmental Response Compensation and Liability Act (CERLA) and the Superfund Amendments and Reauthorization Act (SARA) Title III Section 304. This material is or contains chemical(s) listed in 40 CFR Table 302.4 or nondesignated RCRA ICR substance(s). (Nondesignated ICR substances apply to materials that will not be reused). The Reportable Quantity(s) (RQ) are listed below. Releases in excess of its reportable quantity must be reported to the National Response center (1-800-424-8802) and to the appropriate state and local emergency response organizations.

Isothiazolinone RQ: 100 lbs

Waste Classification: When a decision is made to discard this material as supplied, it is classified as a RCRA hazardous waste with the characteristic of toxicity, hazardous waste number: - D002.

16. OTHER INFORMATION

ABBREVIATIONS:

ACGIH = American Conference of Governmental Industrial Hygienists

OSHA = Occupational Safety and Health Administration

TLV = Threshold Limit Value

PEL = Permissible Exposure Limit

TWA = Time Weighted Average

STEL = Short-Term Exposure Limit

BAC = Butyl acetate

Bar denotes a revision from previous MSDS in this area.

The information herein is presented in good faith and believed to be correct as of the date hereof. However, Southwest Engineers makes no representation as to the completeness and accuracy thereof. Users must make their own determination as to the suitability of the product for their purposes prior to use.

No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or of any other nature with respect to the product or to the information herein is made. Southwest Engineers shall in no event be responsible for any damages of whatsoever nature directly or indirectly resulting from the publication or use or reliance upon information contained herein.

FOR FURTHER INFORMATION CONTACT:

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