



MATERIAL SAFETY DATA SHEET

1. Product And Company Identification

PRODUCT NAME: Bitrex Solutions, Sensitivity and Fit Test

MANUFACTURER:
TSI Incorporated
500 Cardigan Road
Shoreview, MN 55126

INFORMATION PHONE NUMBER: (651) 490-2811 TOLL FREE: (800) 874-2811
FAX NUMBER: (651) 490-3824
EMAIL: answers@tsi.com
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PRODUCT USE: Solution used in respirator fit tests

2. Hazards Identification

Clear, colorless solution with no odor. Extreme bitter taste.

EMERGENCY OVERVIEW

May cause mild eye irritation. Extremely bitter taste. May be harmful if swallowed.

3. Composition/Information On Ingredients

Component	CAS No.	Amount
Bitrex [®] Anhydrous	3734-33-6	<1%
Water	7732-18-5	>99%

(See Section 8 for Exposure Limits)

4. First Aid Measures

INHALATION: Move to fresh air. Seek medical advice if cough, shortness of breath, or other respiratory problems occur.

SKIN CONTACT: Rinse thoroughly with water. Seek medical advice if redness, swelling, itching, or burning occurs.

EYE CONTACT: Rinse immediately with plenty of water for 15 minutes, also under the eyelids. Obtain medical attention if irritation persists.

INGESTION: Ingestion of large amounts is unlikely due to the extremely bitter taste. However, if large amounts are ingested, call a physician or Poison Control Center immediately. If victim is conscious, rinse mouth with a small amount of water. Never give anything by mouth to a person who is drowsy or unconscious.

5. Firefighting Measures

EXTINGUISHING MEDIA: Use media suitable for surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

UNUSUAL FIRE HAZARDS: None known.

HAZARDOUS COMBUSTION PRODUCTS: None known.

6: Accidental Release Measures

Contain and collect with inert absorbent material and place in a suitable container for disposal.

7. Handling and Storage

Avoid contact with the eyes. No special storage conditions required.

8. Exposure Controls / Personal Protection

EXPOSURE LIMITS

CHEMICAL	EXPOSURE LIMIT
Bitrex [®]	None Established
Water	None Established

VENTILATION: None needed under normal use conditions.

RESPIRATORY PROTECTION: None under normal use conditions.

GLOVES: None under normal use conditions.

EYE PROTECTION: Safety glasses or goggles recommended.

9. Physical and Chemical Properties

APPEARANCE AND ODOR: Clear, colorless liquid with no odor. Extremely bitter taste.

pH: Not determined	SPECIFIC GRAVITY: ~1
BOILING POINT: ~100°C (212°F) (same as water)	VAPOR PRESSURE: Same as water
FREEZING POINT: Not determined	VAPOR DENSITY: Same as water
SOLUBILITY IN WATER: Complete	PERCENT VOLATILE: >99%
VISCOSITY: Not determined	EVAPORATION RATE: Same as water
COEFFICIENT OF WATER/OIL DISTRIBUTION: Not determined	
FLASH POINT: None	AUTOIGNITION TEMP: None
FLAMMABILITY LIMITS: LEL: None UEL: None	



10. Stability and Reactivity

STABILITY: Stable

CONDITIONS TO AVOID: None currently known.

INCOMPATIBILITY: None known.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition will produce oxides of carbon and nitrogen.

HAZARDOUS POLYMERIZATION: Will not occur.

11. Toxicological Information

POTENTIAL HEALTH EFFECTS:

ACUTE HAZARDS:

INHALATION: Inhalation of aerosol may cause upper respiratory tract irritation.

SKIN CONTACT: Prolonged skin contact may cause mild irritation.

EYE CONTACT: May cause mild eye irritation.

INGESTION: May cause nausea, vomiting, diarrhea, dizziness, drowsiness, and other symptoms of central nervous system depression. The material has a profoundly bitter taste, so ingestion of large amounts is very unlikely.

CHRONIC HAZARDS: None expected.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

CARCINOGEN: None of the components of this product are listed as carcinogens by OSHA, IARC, NTP or ACGIH.

Acute Toxicity Values:

Bitrex[®]: Oral rat LD50: 584 mg/kg

12. Ecological Information

No ecotoxicity data is available for this product or its components at this time.

13. Disposal Considerations

Recycle, incinerate or landfill in accordance with all local, state/provincial and federal regulations.

14. Transport Information

Not regulated for transport by DOT, IATA, or IMDG.

15. Regulatory Information

EPA SARA 311/312 HAZARD CLASSIFICATION: Not hazardous

EPA SARA 313: This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372):

Chemical Name	CAS #	Weight %
None		



TSI INC.
BITREX® SOLUTIONS
SENSITIVITY AND FIT TEST

CERCLA SECTION 103: This product is not subject to CERCLA reporting requirements. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

EPA TSCA INVENTORY: All of the components of this material are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

CALIFORNIA PROPOSITION 65: This product contains the following substances known to the State of California to cause cancer, birth defects or other reproductive harm: None.

INTERNATIONAL INVENTORIES:

CANADIAN ENVIRONMENTAL PROTECTION ACT: All of the ingredients are listed on the Canadian Domestic Substances List.

EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES (EINECS): All of the ingredients are listed on the EINECS inventory.

AUSTRALIA: All of the ingredients of this product are listed on the Australian Inventory of Chemical Substances

JAPAN: All of the ingredients of this product are listed on the Japanese Existing and New Chemical Substances (MITI) List.

KOREA: All of the ingredients of this product are listed on the Korean Existing Chemicals List (KECL).

CHINA: All of the ingredients of this product are listed on the Inventory of Existing Chemical Substances in China (IECSC).

PHILIPPINES: All of the ingredients of this product are listed on the Philippines Inventory of Chemicals and Chemical Substances (PICCS).

NEW ZEALAND: All of the ingredients of this product are listed on the Hazardous Substances and New Organisms (HSNO) List.

16. Other Information

NFPA Rating: Fire: 0 Health: 0 Reactivity: 0

REVISION SUMMARY: New MSDS.

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TSI Incorporated – 500 Cardigan Road, Shoreview, MN 55126 U.S.A

USA	Tel: +1 800 874 2811	E-mail: answers@tsi.com	Website: www.tsi.com
UK	Tel: +44 149 4 459200	E-mail: tsiuk@tsi.com	Website: www.tsiinc.co.uk
France	Tel: +33 491 11 87 64	E-mail: tsifrance@tsi.com	Website: www.tsiinc.fr
Germany	Tel: +49 241 523030	E-mail: tsigmbh@tsi.com	Website: www.tsiinc.de

Contact TSI or visit our website www.tsi.com for more detailed specifications.

