MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Emr-Ro - Tech Freezer
PART NUMBER: Z80018
GENERAL USE: Freezing specimens

MANUFACTURER'S NAME: Thermo Fisher Scientific
Thermo Fisher Scientific
171 Industry Drive
Pittsburgh, PA 15275

DISTRIBUTOR'S NAME: Thermo Fisher Scientific, Inc.
1935 Chadwick Road, Astor

SUPPLIER'S NAME: Thermo Fisher Scientific, Inc.
1935 Chadwick Road, Astor

DATE PREPARED: March 14, 2007
SUPERVISOR: October 3, 2003

SECTION 2 - HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>HAZARDOUS COMPONENTS</th>
<th>% By Weight</th>
<th>CAS #</th>
<th>EINECS #</th>
<th>Hazard Symbol</th>
<th>RISK PHRASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1,1,2-Tetrafluoroethane</td>
<td>100</td>
<td>811-97-2</td>
<td>212-377-0</td>
<td>NC</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
Aerosol, non-flammable, high-pressure gas; avoid contact and inhalation. Contact with skin may cause freezer burns to skin. Container explosion may occur in fire conditions. Not classified. First Aid: None

POSSIBLE HEALTH EFFECTS
INHALATION: Exposure to HFC-134a at high concentrations may affect the nervous system and produce an anesthetic effect. Exposure to an oxygen deficient atmosphere may cause headache, dizziness, disorientation, collapse. Inhalation of muscle control followed by collapse.

SKIN: None expected. However, prolonged contact may cause irritation. Direct spray on skin may cause frostbite.

EYES: This product is an eye irritant. Contact with the eyes may cause irritation and possible frostbite.

INGESTION: Not likely a hazard due to volatility.

Carcinogenicity: No IARC Monograph. No OSHA Regulated.

SECTION 4 - FIRST AID MEASURES

INHALATION: Remove affected person to fresh air. If symptoms persist seek medical attention.

SKIN: Not likely a hazard due to volatility; however, if irritation persists or frostbite occurs, seek medical attention.

EYES: Remove contact lenses. Flush eyes with clear running water for 15 minutes while holding eyelids open. Seek medical attention.

INGESTION: Not likely a hazard due to volatility.

SECTION 5 - FIRE FIGHTING MEASURES

GENERAL HAZARDS: Product is not considered flammable, however, vapors concentrated in a confined or poorly ventilated area can be ignited upon contact with a high energy spark, flame or high intensity source of heat such as welding sparks. Products of combustion include compounds of carbon, chlorine, hydrogen, and oxygen, including carbon monoxide and oxides of nitrogen. Toxic gases will form upon combustion.

EXTINGUISHING MEDIA
Carbon dioxide, water, dry chemical, chemical foam

FIRE FIGHTING PROCEDURES
Fire fighters should wear NIOSH / MSHA approved, self-contained breathing apparatus for possible exposure to hydrogen fluoride.

UNUSUAL FIRE AND EXPLOSION HAZARDS
Vapors concentrated in a confined or poorly ventilated area can be ignited upon contact with a high energy spark, flame or high intensity source of heat such as welding sparks. Contents under pressure. Do not use water near heat or ignition sources.

HAZARDOUS COMBUSTION PRODUCTS
In case of a fire, chlorine, hydrogen chloride, hydrogen fluoride, oxides of carbon, and toxic smoke may be produced.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Evacuate and ventilate area. Allow gas to escape to air. Remaining liquid may be absorbed on an approved absorbent and placed in an approved container for disposal.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep container closed when not in use; protect containers from abuse; protect from extreme temperatures; keep away from sources of heat. Do not puncture container. Do not attempt to refill container. Maintain well ventilated work areas to minimize exposure when handling this material.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

NIOSH ACGIH

<table>
<thead>
<tr>
<th>HAZARDOUS COMPONENTS</th>
<th>TLV ppm</th>
<th>STEL ppm</th>
<th>TLV short</th>
<th>STEL short</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1,1,2-Tetrafluoroethane</td>
<td>1000</td>
<td>1000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PERSONAL PROTECTION

RESPIRATORY PROTECTION (SPECIFY TYPE): None required while threshold limits (Section 2a) are kept below minimum allowable concentrations. If TLV exceeds limits, NIOSH-approved respirator must be worn. Refer to 29 CFR 1910.134 or European Standard EN 149 for complete regulations.

PROTECTIVE GLOVES: Neoprene or rubber gloves with cuffs.

EYE PROTECTION: Protective eyeglasses or chemical safety goggles. Refer to 29 CFR 1910.133 or European Standard EN166.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Safety eyewear nearby

WORK / HYGIENIC PRACTICES: Practice safe workplace habits. Minimize body contact with this, as well as all chemicals in general.
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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR:
Clear, colorless, slightly volatile liquid, characteristic odor
VAPOR PRESSURE:
85.8 mm Hg @ 20°C
SPECIFIC GRAVITY (WATER = 1):
1.255
BLOWING POINT/BLOWING RANGE:
-11.9°F (-26.6°C)
SOLUBILITY IN WATER:
Negligible
FLASH POINT:
Non-flammable
Like that of water
VAPOR DENSITY (AIR = 1):
3.9
AUTOMATIC TEMPERATURE:
Not determined

SECTION 10 - STABILITY AND REACTIVITY

STABILITY:
UNSTABLE
CONDITIONS TO AVOID:
Extreme temperatures, open flames, sparks
INCOMPATIBILITY MATERIALS TO AVOID:
Strong oxidizers, strong acids
HAZARDOUS DECOMPOSITION OR BYPRODUCTS:
Decomposition will not occur if handled and stored properly. In case of a fire, oxides of carbon, water, carbon dioxide, and smoke, which may be hazardous, may be produced.
HAZARDOUS POLYMERIZATION:
MAY OCCUR:
WILL NOT OCCUR
CONDITIONS TO AVOID:
None

SECTION 11 - TOXICOLOGICAL INFORMATION

Hazardous Components
CAS #
BECOS #
LIST of ingredient
(List include Species and Phase)
LIST of Ingredient
(List include Species)
1,1,1,2-tetrafluoroethane
111-97-2
281-377-9
Not established
1500 gm/m3
4hr inhalation test

SECTION 12 - ECOLOGICAL INFORMATION

No data are available on the adverse effects of this material on the environment. Neither COD nor BOD data are available. Based on the chemical composition of this product, it is assumed that the mixture can be treated in an anaerobic biological waste treatment plant system in limited quantities. However, such treatment should be evaluated and approved for each specific biological system. None of the ingredients in this mixture are classified as a Marine Pollutant.

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHODS: According to the European Waste Catalogue, waste codes are application specific and should be assigned by the user based on the information provided. The product is used for the purpose of water treatment with local, state, and federal regulations. This product may contain hazardous substances or fumes in a disposal container creating a hazardous environment. Refer to "40 CFR Protection of Environment Parts 260 - 269" for complete waste disposal regulations. Consult your local, state, Federal Environmental Protection Agency before disposal of any chemicals. Do not flush to sanitary sewer or waterway.

SECTION 14 - TRANSPORT INFORMATION

PROPER SHIPPING NAME: Ancorox
DOT HAZARD CLASS / Pack Group: 2.2
REFERENCE: 49 CFR 173.115, 396, 367
UN/NA IDENTIFICATION NUMBER: UN 1905
LABEL: NONFLAMMABLE GAS
Hazardous Substance: UN TDD Class / Pack Group: 2.2
Hazard Identification Number (HHN): None
IATA HAZARD CLASS / Pack Group: 2.2
IMDG HAZARD CLASS: 2.2
RIDWAG Dangerous Goods Code: 2.2
Note: Transportation information provided is for reference only. Client is urged to consult 49 CFR 170 - 177, IMDG, IATA, EU, United Nations TDG, and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

SECTION 15 - REGULATORY INFORMATION

TSCA (USA - Toxic Substance Control Act):
All components of this product are listed on the U.S. Toxic Substances Control Act's Chemical Inventory (TSCA Inventory) or are exempted from listing because of a Low Volume Exemption. It has been granted in accordance with 40 CFR 723.50.
SARA TITLE III (USA - Superfund Amendments and Reauthorization Act):
311/312 Hazard Categories:
Sudden release of pressure
313 Reportable Ingredients:
None

CERCLA (USA - Comprehensive Response Compensation and Liability Act):
None

California Prop 85, Safe Drinking Water and Toxics Enforcement Act of 1989:
There are no chemicals present known to the state of California to cause cancer or reproductive toxicity.

CPR (Canadian Controlled Products Regulations):
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSIS contains all the information required by the Controlled Products Regulations. WHMIS Classification: A, D2B
ICD (Canadian Ingredient Disclosure List):
Components of this product identified by CAS number are listed on the DLS or NDSL, and may or may not be listed in Section 2 of this document. Only ingredients classified as "hazardous" are listed in Section 2 unless otherwise indicated.

EINECS (European Inventory of Existing Commercial Chemical Substances):
Components of this product identified by CAS numbers are on the European Inventory of Existing Commercial Chemical Substances.

WVO Water Quality Index: 1

RISK PHRASE:
Not classified
SYMBOLS REQUIRED FOR LABEL:
Not classified
SAFETY PHRASE:
S15 Keep away from heat.
S23 Do not breathe vapour.

HMS HAZARD RATINGS:
HEALTH 1 *= Chronic Hazard
YELLOW 2 = MODERATE
PHYSICAL HAZARD 3 = HIGH
PERSONAL PROTECTIVE EQUIPMENT 4 = EXTREME

REVISION SUMMARY:
This MSDS has been revised to the following text update:

REVIERS:
ChemTel Inc.
1305 N. Florida Ave.
Tampa, Florida USA 33602
(813) 256-3904
rd
131: (813) 248-0573
www.chemtel.com

The information contained herein is believed to be accurate but is not warranted to be exact. Data and calculations are based on information furnished by the manufacturer of the product and manufacturer of the component of the product. Users are advised to verify conditions of use and other safety procedures. Manufacturer bears no responsibility for injury to persons or property caused by the methods or standards safety procedures are followed. No warranties regarding the product should be derived from the information of the product description herein.
MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION AND GENERAL INFORMATION
   - Name/Trade Name: Irritant Smoke Tube
   - Company Name: Albion Nanotech
   - Address: 1021 Orangevale Avenue
   - Garden Grove, CA 92841
   - Telephone: 714-906-0055
   - Chemical Code: 1980-39-93

2. COMPOSITION
   - Chemical Name: Stannic Chloride
   - Chemical Family: Tin(IV) Chloride, tin tetrachloride, Lubricant Forming Spirit
   - Synonyms: Tin (IV) Chloride, tin tetrachloride
   - Stannic Chloride, stannic acid
   - CAS Number: 7446-76-8
   - Molecular Weight: 260.5
   - Molecular Formula: SnCl4
   - Percent: 5-15% (w/w), 5-95.9%

3. HAZARD IDENTIFICATION
   - Physical Hazards: The vapor is heavier than air.
   - Chemical Hazards: The substance decomposes on heating to produce toxic fumes. Reacts violently with water forming corrosive hydrochloric acid and tin oxide fumes. Reacts with hydrogen, alcohols and amines causing fire and explosion hazards. Attacks many metals, some forms of plastics, rubber and coatings. Reacts with moist air to form hydrochloric acid.
   - Health Hazards: Inhalation: May cause breathing difficulties. Skin: May cause irritation, skin burns, pain, blisters.
   - Toxicity: May cause death. Skin: May cause death.
   - Chronic Exposures: The substance may have effects on the respiratory tract, resulting in respiratory function. Hydrogen chloride gas (and the acid fumes) is corrosive to all human tissues. Prolonged inhalation of gas concentrations exceeding the TWA may damage teeth and irritate nasal passages. Inhalation of higher concentrations (above 50 ppm) for a short period of time can cause choking, coughing, and produce severe irritation and damage to the mucous membranes of the respiratory tract.
   - Acute Exposure: The substance is corrosive to the eyes, the skin and the respiratory tract. Inhalation of fumes and aerosols may cause lung edema.

4. FIRST AID MEASURES
   - Inhalation: Fresh air, rest. If symptoms persist, artificial respiration if indicated. Call for medical attention.
   - Skin Contact: Rinse off and wash skin with water and soap. Avoid metal contact.
   - Eye Contact: Flush with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
   - Spill/Leak: Take plenty of water to drink. Call for medical attention.

5. FIRE FIGHTING MEASURES
   - Fire Extinguisher: Water, dry chemical, halon 1301, dry chemical, CO2. Do not use water.
   - Special Fire Fighting Procedures: Firefighters should use SCBA units to prevent toxic decomposition products.
   - Notes: None

6. ACCIDENTAL RELEASE MEASURES
   - Procedure for spill/leak: Recovery spilled liquid with deodorant. Do not wash away into sewer, then recover to safe place.
   - Disposal: Disposal is in accordance with current laws and regulations.

7. HANDLING AND STORAGE
   - Storage: Store in tight containers in a cool dry place away from light and heat. Keep separate from combustible materials, food and feed stuffs.
   - Self Life: 2 Years
   - PPE: Use safety goggles and gloves if handling in large quantities.
   - Notes: None

8. EXPOSURE CONTROLS
   - PPE: Safety glasses with side shields should be worn to minimize eye contact. Safety gloves if possible skin contact with HCI and broken glass injuries.
   - Inhalation: Ventilation, local exhaust, or breathing protection.
   - Skin: Protective gloves. Protective clothing.
   - Eye: Safety goggles, face shield, or eye protection in combination with breathing protection.
   - Ingestion: Do not eat, drink, or smoke during work.
   - Ventilation: Local ventilation must be adequate to protect exposed workers.
   - Engineering Controls: Personal protective equipment should be appropriate for use with dust, fumes, mists and acid gases.
   - Work/Process Practices: Ventilation, local exhaust, or breathing protection.
   - Exposure Limits:
     - Chronic: Stannic Chloride
     - TEL (ACGIH TLV): 2 mg/m³ air (ACGIH 1997)
     - PEL (OSHA PEL): 2 mg/m³
     - Controlled Parameter: N/A

9. PHYSICAL AND CHEMICAL PROPERTIES
   - Color/Appearance/Odor: Colorless or slightly yellow fuming liquid, with pungent odor.
   - Boiling Point: N/A
   - Melting Point: N/A
   - Specific Gravity (g/dL): N/A
   - Refractive Index: N/A
   - Relative Density: 2.235 g/cm³
   - Evaporative Rate: N/A
   - Water Contaminants: None
   - Vapor Density: Air-1 9.0
   - Vapor Pressure: 20 mm Hg at 20°C
   - Solubility in Water: N/A

10. STABILITY AND REACTIVITY
    - Conditions to Avoid: Do not expose to air until use.
    - Material to Avoid: Water, bases, chlorides, metal oxides.
    - Stability: Reacts with water and moisture in the air to form a smoke of HCI and the oxides.
    - Hazardous Polymerization: Will not occur, but HCI may result.

11. TOXICOLOGICAL INFORMATION
    - Health Effects: N/A
    - Oral LD50: N/A
    - Human Lethal Dose: N/A
    - Notes: N/A

12. ECOLOGICAL INFORMATION
    - None Available

13. DISPOSAL CONSIDERATIONS
    - Do not wash away into sewer.

14. TRANSPORT INFORMATION
    - Proper Packing Code: None
    - Emergency Contact: None
    - UN Number: 3172
    - Special Fire Fighting Procedures: None
    - Notes: N/A

15. REGULATORY INFORMATION
    - TSCA: Registered
    - RTECS: X3057000
    - FDA Approved: N/A
    - EC No: 056-04-05-0
    - ICC: 2075

16. OTHER INFORMATION
    - Notes: None

DISCLAIMER: THE INFORMATION FURNISHED HEREBY IS BELIEVED TO BE ACCURATE AND REPRESENTS THE BEST DATA CURRENTLY AVAILABLE TO US. NO WARRANTY, EXPRESSED OR IMPLIED IS MADE.