

# Safety Data Sheet

## Freeze-Up

### SECTION I - IDENTIFICATION

**PRODUCT NAME:** Freeze-Up  
**PRODUCT CODE:** 7621, 9893,9892, 8036  
**PRODUCT USE:** Lubricating Penetrant for metal to metal parts  
**COMPANY NAME:** Tifco Industries  
**COMPANY ADDRESS:** P.O. Box 40277, Houston, TX 77240  
**COMPANY PHONE:** 800-231-0454  
**EMERGENCY PHONE:** 800-255-3924

### SECTION II – HAZARDS IDENTIFICATION

**CLASSIFICATION:** Flammable Aerosol: Category 2

**Liquefied Gas**

**HAZARD STATEMENT(S): WARNING:** Flammable Aerosol. Contains gas under pressure; May explode if heated.

This product contains the following percentage of chemicals of unknown toxicity: 0%

**PRECAUTIONARY STATEMENTS:** Keep away from heat, sparks, open flames, and hot surfaces. -No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store in a well-ventilated place.

**SYMBOL:**



**HAZARDS NOT OTHERWISE CLASSIFIED:** N/A

### SECTION III – COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENT	CAS NUMBER	PERCENT
1,1-Difluoroethane	75-37-6	60-100%

### SECTION IV - FIRST AID MEASURES

**EYES:** If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice or attention.

**INGESTION:** Do not induce vomiting unless directed by medical authority. Seek immediate medical attention.

**INHALATION:** Move to fresh air. If breathing is difficult, administer oxygen. If not breathing administer artificial respiration or at any sign of loss of consciousness seek immediate medical attention.

**SKIN:** If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical attention.

**ACUTE HEALTH HAZARDS:** Eyes: redness, tearing, blurred vision

Skin: defatting and dermatitis

Oral: abdominal irritation, nausea, vomiting, and diarrhea

**CHRONIC HEALTH HAZARDS:** None known

**NOTE TO PHYSICIAN:** There is no specific treatment regimen. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

### SECTION V – FIRE-FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Dry chemical, foam, or Carbon Dioxide (CO<sub>2</sub>).

**UNSUITABLE EXTINGUISHING MEDIA:** Water spray/stream.

**SPECIAL FIRE FIGHTING PROCEDURES:** Wear NIOSH approved Self Contained Breathing Apparatus with a full face piece operated in a positive pressure demand mode with full body protective clothing when fighting fires.

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**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Contents under pressure. Exposure to temperatures above 120°F may cause bursting. Flammable.

**HAZARDOUS COMBUSTION PRODUCTS:** Oxides of carbon

### SECTION VI – ACCIDENTAL RELEASE MEASURES

**PERSONAL PROTECTIVE EQUIPMENT:** Refer to section VIII for proper Personal Protective Equipment.

**SPILL:** Clean up with rag or use some non-combustible material like vermiculite, sand or earth.

**WASTE DISPOSAL:** Dispose of in accordance with federal, state, and local regulations. Do not reuse, puncture, or incinerate container. Wrap container and place in trash collection.

**RCRA STATUS:** Waste likely considered hazardous waste U161 (Methyl Isobutyl Ketone), under RCRA, however product should be fully characterized prior to disposal (40 CFR 261).

### SECTION VII – HANDLING AND STORAGE

**HANDLING AND STORAGE:** Protect from sunlight. Store in a well ventilated place. Do not expose to temperatures exceeding 50°C/122°F. Pressurized container: Do not pierce or burn, even after use. Store locked up.

**OTHER PRECAUTIONS:** Flammable vapors may collect in low lying areas.

**INCOMPATIBILITY:** Strong oxidizers

### SECTION VIII – EXPOSURE CONTROLS/PERSONAL PROTECTION

HAZARDOUS INGREDIENT	OSHA PEL	ACGIH TLV
1,1-Difluoroethane	Not Established	Not Established

**ENGINEERING CONTROLS / VENTILATION:** Material is heavier than air. Material may concentrate in low lying areas. Normal, forced ventilation required to meet TLV requirements. Local exhaust ventilation is generally preferred.

**RESPIRATORY PROTECTION:** Wear NIOSH/MSHA approved organic vapor respiratory protection if listed exposure limits (section VIII) are exceeded.

**PERSONAL PROTECTIVE EQUIPMENT:** Safety glasses

**ADDITIONAL MEASURES:** Wash hands thoroughly with soap and water after use. Use good industrial hygiene practices.

### SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE:** Clear, Colorless Aerosol

**ODOR:** Solvent odor

**ODOR THRESHOLD:** 0.68ppm

**BOILING POINT:** < -20°F

**FREEZING POINT:** N/D

**FLAMMABILITY:** Extremely Flammable Aerosol

**FLASH POINT:** > 60°F (16°C)

**AUTOIGNITION TEMPERATURE:** N/D

**LOWER FLAMMABILITY LIMIT:** N/D

**UPPER FLAMMABILITY LIMIT:** N/D

**VAPOR PRESSURE (mm Hg):** N/D

**VAPOR DENSITY (AIR=1):** >2

**EVAPORATION RATE:** >1.6

**SPECIFIC GRAVITY (H2O=1):** 0.92 @ 77°F (25°C)

**pH:** N/A

**SOLUBILITY IN WATER:** < 1%

**PARTITION COEFFICIENT: n-OCTANOL/WATER (Kow):** N/D

**VOLATILE ORGANIC COMPOUNDS (VOC):** 4.5%

**DECOMPOSITION TEMPERATURE:** N/D

**VISCOSITY:** N/D

### SECTION X – STABILITY AND REACTIVITY DATA

**REACTIVITY:** Strong oxidizers

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**CHEMICAL STABILITY:** Stable

**CONDITIONS TO AVOID:** Temperatures greater than 122°F may cause bursting.

**INCOMPATIBILITIES:** Strong oxidizers

**HAZARDOUS DECOMPOSITION OR BY-PRODUCT:** Oxides of carbon

**POSSIBLE HAZARDOUS REACTIONS:** None Known

### SECTION XI – TOXICOLOGICAL INFORMATION

**TOXICOLOGICAL INFORMATION:** Not Established

**ROUTES OF ENTRY:** Eyes, Ingestion, Inhalation, Skin

**EYES:** Causes irritation, redness, tearing.

**INGESTION:** Causes gastrointestinal irritation, nausea, vomiting, abdominal cramps.

**INHALATION:** Causes dizziness, Anaesthetic effects, Central nervous system depression, and Narcosis

**SKIN:** Brief contact is not irritating. May cause irritation, localized defatting, redness, itching with prolonged or repeated contact. Can be absorbed through the skin with prolonged and widespread contact.

**MEDICAL CONDITION AGGRAVATED:** None known

**ACUTE HEALTH HAZARDS:** Eyes: redness, tearing, blurred vision

Skin: defatting and dermatitis

Oral: abdominal irritation, nausea, vomiting, and diarrhea

**CHRONIC HEALTH HAZARDS:** None known

**CARCINOGENICITY:** OSHA: No ACGIH: No NTP: No IARC: No OTHER: CA Prop 65

### SECTION XII – ECOLOGICAL INFORMATION

**ECOLOGICAL INFORMATION:** Not Established

**BIODEGRADABILITY:** Component or components of this product are not biodegradable.

**BIOACCUMULATION:** This product is not expected to bioaccumulate.

**SOIL MOBILITY:** This product is mobile in soil.

**OTHER ECOLOGICAL HAZARDS:** None Known

### SECTION XIII – DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL:** Dispose of in accordance with federal, state, and local regulations. Do not reuse, puncture, or incinerate container. Wrap container and place in trash collection.

**RCRA STATUS:** Waste likely considered hazardous waste U161 (Methyl Isobutyl Ketone), under RCRA, however product should be fully characterized prior to disposal (40 CFR 261).

### SECTION XIV - TRANSPORTATION INFORMATION

**PROPER SHIPPING NAME:** Aerosols, Ltd. Qty.

**HAZARD CLASS/DIVISION:** 2.1

**UN/NA NUMBER:** UN 1950

**PACKAGING GROUP:** N/A

#### AIR SHIPMENT

**PROPER SHIPPING NAME:** Aerosols, Ltd. Qty.

**HAZARD CLASS/DIVISION:** 2.1

**UN/NA NUMBER:** UN 1950

**PACKAGING GROUP:** N/A

#### SHIPPING BY WATER:

##### VESSEL (IMO/IMDG)

**PROPER SHIPPING NAME:** Aerosols, Ltd. Qty.

**HAZARD CLASS/DIVISION:** 2.1

**UN/NA NUMBER:** UN 1950

**PACKAGING GROUP:** N/A

**ENVIRONMENTAL HAZARDS WATER:** N/A

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**SECTION XV - REGULATORY INFORMATION**

**TSCA STATUS:** All Chemicals are listed or exempt.

**CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT):** **Methyl Isobutyl Ketone** (108-10-1)  
Reportable Quantity = 5,000 lbs

**SARA 311/312 HAZARD CATEGORIES:** Acute Health, Chronic Health, Fire Hazard

**SARA 313 REPORTABLE INGREDIENTS:** Methyl Isobutyl Ketone 108-10-1

**STATE REGULATIONS: CA Prop 65:** This product contains a chemical known to the state of California to cause cancer, birth defects or other reproductive harm: **Methyl Isobutyl Ketone** (108-10-1)

**INTERNATIONAL REGULATIONS:** All components are listed or exempted.

<b>NFPA HEALTH:</b>	1	<b>HMIS HEALTH:</b>	1
<b>NFPA FLAMMABILITY:</b>	3	<b>HMIS FLAMMABILITY:</b>	3
<b>NFPA REACTIVITY:</b>	1	<b>HMIS REACTIVITY:</b>	1
<b>NFPA OTHER:</b>	None	<b>HMIS PROTECTION:</b>	A

**SECTION XVI - ADDITIONAL INFORMATION**

**PREPARATION BY:** Chioma Agbai

**DATE PREPARED:** 1/14/2014

**REVISION DATE:** 10/19/2017

N/A = Not Applicable; N/D = Not Determined

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