

Safety Data Sheet
Freeze-Up

SECTION I - IDENTIFICATION

PRODUCT IDENTIFIER: Freeze-Up
PRODUCT CODE: 7621, 9893, 8036
RECOMMENDED USE: Lubricating Penetrant for Metal to Metal Parts
RESTRICTIONS ON USE: None known.
COMPANY NAME: TIFCO Industries, Inc.
COMPANY ADDRESS: PO Box 40277, Houston, TX 77240
COMPANY PHONE: 281-571-6000
EMERGENCY PHONE: 800-255-3924

SECTION II – HAZARDS IDENTIFICATION

CLASSIFICATION: Flammable Aerosol: Category 2
Gases Under Pressure: 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: N/A

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	70-80%

SECTION IV - FIRST AID MEASURES

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. Rinse mouth with water. Do not induce vomiting unless directed by medical authority. Seek 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: Wash thoroughly with soap and water for 15 minutes. Remove contaminated clothing and shoes immediately. Seek medical attention if irritation persists.

ACUTE HEALTH HAZARDS: May cause defatting and dermatitis of the skin. Contact with eyes may cause irritation, redness, tearing. Inhalation of mist or vapors may cause respiratory irritation, drowsiness or dizziness. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

CHRONIC HEALTH HAZARDS: None known.

NOTE TO PHYSICIAN: Treatment of overexposure should be directed at the control of symptoms and the clinical condition.

SECTION V – FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Dry chemical, carbon dioxide, water spray, alcohol-resistant foam.

UNSUITABLE EXTINGUISHING MEDIA: Water jets or streams.

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.

Safety Data Sheet

Freeze-Up

UNUSUAL FIRE AND EXPLOSION HAZARDS: FLAMMABLE. Contents under pressure. Exposure to temperatures above 120 °F may cause bursting. Keep away from heat, sparks, open flames and other sources of ignition.

HAZARDOUS COMBUSTION PRODUCTS: Oxides of carbon, fluorinated hydrocarbons and hydrogen fluoride.

SECTION VI – ACCIDENTAL RELEASE MEASURES

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

SPILL: Eliminate all sources of ignition. Absorb with non-combustible material like vermiculite, sand or earth. Place waste in proper containers for waste disposal.

WASTE DISPOSAL: Dispose of in accordance with local, state and federal 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: Do not use or store near heat, open flames or other sources of ignition. Wear proper personal protective equipment when using this product. Avoid contact with skin, eyes and clothing. Do not inhale mist or vapor. Do not use or store with strong oxidizers. Protect from sunlight. Store in a well ventilated area. Do not expose to temperatures exceeding 50 °C/122 °F. Pressurized container: Do not pierce or burn, even after use. Wash hands thoroughly after handling.

OTHER PRECAUTIONS: Read and follow the directions on the product label. They are the best guide to using the product in the most effective manner. The label also gives you the necessary safety precautions to protect your health. Flammable vapors may collect in low lying areas.

INCOMPATIBILITY: Strong oxidizing agents.

SECTION VIII – EXPOSURE CONTROLS/PERSONAL PROTECTION

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

ENGINEERING CONTROLS / VENTILATION: Local ventilation/exhaust preferred.

RESPIRATORY PROTECTION: Not required with normal use. If vapors are present or irritation is experienced, use NIOSH/MSHA approved respirator.

PERSONAL PROTECTIVE EQUIPMENT: Safety glasses/goggles.

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 spray.

ODOR: Solvent.

ODOR THRESHOLD: N/D

pH: N/A

MELTING POINT/FREEZING POINT: N/D

INITIAL BOILING POINT AND BOILING RANGE: N/D

FLASH POINT: > 60 °F (15.6 °C).

EVAPORATION RATE: >1.6

FLAMMABILITY(solid/gas): Flammable Aerosol

UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:

LOWER FLAMMABILITY LIMIT: N/D

UPPER FLAMMABILITY LIMIT: N/D

EXPLOSIVE LIMIT LOWER (%): N/D

EXPLOSIVE LIMIT UPPER (%): N/D

VAPOR PRESSURE (mm Hg): N/D

VAPOR DENSITY (AIR=1): > 2

RELATIVE DENSITY (H2O=1): 0.92 @ 77 °F (25 °C).

SOLUBILITY(IES): < 1% in water.

PARTITION COEFFICIENT: n-OCTANOL/WATER (K_{ow}): N/D

AUTOIGNITION TEMPERATURE: N/D

Safety Data Sheet
Freeze-Up

DECOMPOSITION TEMPERATURE: N/D

VISCOSITY: N/D

SECTION X – STABILITY AND REACTIVITY

REACTIVITY: This product may react with oxidizing agents.

CHEMICAL STABILITY: Stable.

POSSIBLE HAZARDOUS REACTIONS: None known.

CONDITIONS TO AVOID: Temperatures greater than 122 °F and sources of ignition. Avoid incompatible materials.

INCOMPATIBLE MATERIALS: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon. Formaldehyde.

SECTION XI – TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: **1,1-Difluoroethane** (75-37-6): LC₅₀ (Inhalation, Rat, 4h) > 437500 ppm.

ROUTES OF ENTRY: Eyes, Inhalation, Skin

EYES: May cause irritation, redness, tearing.

INGESTION: Not a likely route of exposure under normal product handling conditions. May cause gastrointestinal irritation, nausea, diarrhea, vomiting, abdominal cramps.

INHALATION: Inhalation of vapor may produce anesthetic effects and feeling of euphoria. Prolonged overexposure can cause rapid breathing, headache, dizziness, narcosis, unconsciousness and death from asphyxiation depending upon concentration and time of exposure.

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: May cause defatting and dermatitis of the skin. Contact with eyes may cause irritation, redness, tearing. Inhalation of mist or vapors may cause respiratory irritation, drowsiness or dizziness. Ingestion may cause gastrointestinal 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

ECOTOXICITY: **1,1-Difluoroethane** (75-37-6): LC₅₀ (Fish, 96h) 295.78 mg/L; EC₅₀ (Daphnia, 48h) 146.7 mg/L; EC₅₀ (Algae, 96h) 47.76 mg/L.

PERSISTENCE AND DEGRADABILITY: Component or components of this product are not biodegradable.

BIOACCUMULATIVE POTENTIAL: Components in this mixture can bioaccumulate in aquatic organisms.

MOBILITY IN SOIL: This product is mobile in soil.

OTHER ADVERSE EFFECTS: None known.

SECTION XIII – DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Dispose of in accordance with local, state and federal 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 - TRANSPORT INFORMATION

PROPER SHIPPING NAME: Aerosols, Ltd. Qty.

HAZARD CLASS/DIVISION: 2.1

UN/NA NUMBER: UN1950

PACKING GROUP: N/A

AIR SHIPMENT

PROPER SHIPPING NAME: Aerosols, flammable.

HAZARD CLASS/DIVISION: 2.1

UN/NA NUMBER: UN1950

Safety Data Sheet
Freeze-Up

PACKING GROUP: N/A

SHIPPING BY WATER:
VESSEL (IMO/IMDG)
PROPER SHIPPING NAME: Aerosols.
HAZARD CLASS/DIVISION: 2.1
UN/NA NUMBER: UN1950
PACKING GROUP: N/A
ENVIRONMENTAL HAZARDS WATER: N/A

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 = 5000 pounds.

SARA 311/312 HAZARD CATEGORIES: Flammable (gases, aerosols, liquids, solids). Gas under pressure.

SARA 313 REPORTABLE INGREDIENTS: Methyl isobutyl ketone (108-10-1).

CLEAN WATER ACT: None.

STATE REGULATIONS: California Proposition 65: WARNING: This product can expose you to chemicals including Methyl Isobutyl Ketone (MIBK), which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov. **Methyl isobutyl ketone** (108-10-1): Included on State Hazardous Substances Inventories, Right-to-Know lists and/or Air Quality or Air Pollutants lists for the following states: MA, NJ, PA, RI.

INTERNATIONAL REGULATIONS: No information available.

VOLATILE ORGANIC COMPOUNDS (VOC): 4.5%

NFPA HEALTH:	1	HMIS HEALTH:	1
NFPA FLAMMABILITY:	2	HMIS FLAMMABILITY:	2
NFPA REACTIVITY:	1	HMIS REACTIVITY:	1
NFPA OTHER:	None	HMIS PROTECTION:	A

SECTION XVI - OTHER INFORMATION

PREPARATION BY: Roberto Cerón
DATE PREPARED: 01/14/2014
REVISION DATE: 01/24/2023

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

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