

Safety Data Sheet

SECTION I - IDENTIFICATION

PRODUCT NAME: FREEZE-OUT
PRODUCT CODE: 2899-A
PRODUCT USE: Ice removal
COMPANY NAME: BETA TECHNOLOGY, INC.
COMPANY ADDRESS: P.O Box 218686, Houston, TX 77218
COMPANY PHONE: 281-647-9700
EMERGENCY PHONE: 800-535-5053

SECTION II – HAZARDS IDENTIFICATION

CLASSIFICATION: Flammable Aerosol: Category 1
Dissolved Gas
Acute Toxicity (Oral / Inhalation / Dermal): Category 3
Skin Irritant: Category 2
Eye Irritant: Category 2b
Specific Target Organ Toxicity (Single Exposure): Category 1

HAZARD STATEMENT(S): DANGER: Extremely Flammable Aerosol Contains gas under pressure; May explode if heated. Toxic if swallowed, in contact with skin, and if inhaled. Causes skin and eye irritation. Causes damage to Eyes and Central nervous system.

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 50C/122F. Store in a well-ventilated place. Wear protective gloves. Wash hands thoroughly after handling. Do not eat, drink, or smoke when using this product. Do not breathe fumes, mist, vapors, or spray. Use only outdoors or in a well-ventilated area. If swallowed: Immediately call a poison center or doctor. Rinse mouth. If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice or attention. 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. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison control center or doctor if you feel unwell. Take off immediately all contaminated clothing and wash it before reuse. Store locked up. Dispose of contents and container in accordance with local, state, and national regulations.



SYMBOL:

HAZARDS NOT OTHERWISE CLASSIFIED: N/A

SECTION III – COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENT	CAS NUMBER	PERCENT
Carbon Dioxide	124-38-9	3-7%
Ethylene Glycol	107-21-1	5-10%
Isopropyl Alcohol	67-63-0	1-5%
Methyl Alcohol	67-56-1	60-100%

SECTION IV - FIRST AID MEASURES

EYES: Immediately flush with water for 15 minutes while holding eyelids open. Seek immediate medical attention.

INGESTION: 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: Immediately wash with soap and water for 15 minutes.

ACUTE HEALTH HAZARDS: Eyes: Redness and tearing

Skin: Absorption of large amounts of product causes Eye and Central nervous system damage, and possibly death.

Inhalation: Anesthetic, irritation, prolonged exposure may lead to unconsciousness and death.

Safety Data Sheet

Oral: abdominal irritation, nausea, vomiting, and diarrhea, consumption of large quantities causes Eye, Central Nervous System damage, and death

CHRONIC HEALTH HAZARDS: May cause damage to the following organs: blood, kidneys, liver, mucous membranes, bone marrow, central nervous system (CNS).

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: Carbon dioxide, standard chemical fire extinguisher, and water fog.

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. Avoid contact with skin and breathing smoke, fumes, and decomposition products. Cool fire exposed containers with water fog to prevent bursting.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Keep away from sparks, open flames, and hot surfaces. No smoking. Do not spray on an open flame or other ignition source.

HAZARDOUS COMBUSTION PRODUCTS: Oxides of carbon

SECTION VI – ACCIDENTAL RELEASE MEASURES

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

SPILL: Absorb with non-combustible material like vermiculite, sand or earth and rinse with small amount of soapy water. Do not allow to drain into sewers or storm drains. Dispose of in accordance with local, state and federal regulations.

WASTE DISPOSAL: Dispose of in accordance with local, state and federal regulations.

RCRA STATUS: Product should be fully characterized prior to disposal (40 CFR 261).

SECTION VII – HANDLING AND STORAGE

HANDLING AND STORAGE: Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Pressurized container: Do not pierce or burn, even after use.

OTHER PRECAUTIONS: Keep out of the reach of children.

INCOMPATIBILITY: Strong oxidizing agents.

SECTION VIII – EXPOSURE CONTROLS/PERSONAL PROTECTION

HAZARDOUS INGREDIENT	OSHA PEL	ACGIH TLV
Carbon Dioxide	5000 ppm	5000 ppm
Ethylene Glycol	125 mg/m3	100 mg/m3
Isopropyl Alcohol	400 ppm	200 ppm
Methyl Alcohol	200 ppm	200 ppm

ENGINEERING CONTROLS / VENTILATION: General ventilation and local exhaust should be adequate.

RESPIRATORY PROTECTION: Wear NIOSH/MSHA approved respiratory protection if used in confined, poorly ventilated areas.

PERSONAL PROTECTIVE EQUIPMENT: Safety glasses

ADDITIONAL MEASURES: Wash hands thoroughly after handling. Do not breathe vapors. Do not eat, drink, or smoke while using product. Get medical attention if you feel unwell.

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear, Colorless Aerosol

ODOR: Alcohol Odor

ODOR THRESHOLD: N/D

BOILING POINT: > 148°F (64.4°C)

FREEZING POINT: N/D

FLAMMABILITY: Extremely Flammable Aerosol

FLASH POINT: 65°F (18°C)

AUTOIGNITION TEMPERATURE: N/D

Safety Data Sheet

LOWER FLAMMABILITY LIMIT: N/D
UPPER FLAMMABILITY LIMIT: N/D
VAPOR PRESSURE (mm Hg): 89 mmHg
VAPOR DENSITY (AIR=1): > 1
EVAPORATION RATE: > 1
SPECIFIC GRAVITY (H₂O=1): 0.815 @ 77° F (25° C)
pH: N/A
SOLIDS (%): N/D
SOLUBILITY IN WATER: 100%
PARTITION COEFFICIENT: n-OCTANOL/WATER (K_{ow}): N/D
VOLATILITY INCLUDING WATER (%): 100%
VOLATILE ORGANIC COMPOUNDS (VOC): 96%
DIELECTRIC STRENGTH (Volts): N/A
DECOMPOSITION TEMPERATURE: N/D
VISCOSITY: N/D

SECTION X – STABILITY AND REACTIVITY DATA

REACTIVITY: None Known
CHEMICAL STABILITY: Stable
CONDITIONS TO AVOID: Temperatures greater than 120°F may cause bursting.
INCOMPATIBILITY: Strong oxidizing agents.
HAZARDOUS DECOMPOSITION OR BY-PRODUCT: Oxides of carbon
POSSIBLE HAZARDOUS REACTIONS: Will not occur

SECTION XI – TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: **Isopropyl Alcohol** (67-63-0) LD₅₀ (Oral,Rat) 5045 mg/kg; LD₅₀ (Oral, Rabbit) 5045 mg/kg; LD₅₀ (Dermal, Rabbit) 12,800 mg/kg; LC₅₀ (Inhalation, Rat, 8hr) 16,000 ppm **Methyl Alcohol** (67-56-1) LD₅₀ (Oral, Man) 5628 mg/kg; LD₅₀ (Dermal, Rabbit) 20,000 mg/kg **Ethylene Glycol** (107-21-1) LD₅₀ (Oral, Rat) 4700 mg/kg; LC₅₀ (Rat, 4 hrs) > 200 mg/m³

ROUTES OF ENTRY: Eyes, Ingestion, Inhalation, Skin
EYES: Causes severe irritation, redness, tearing.
INGESTION: Not a likely route of exposure under normal product handling conditions.
INHALATION: Acute exposure may cause nausea, vomiting, coughing and pulmonary irritation.
SKIN: Causes localized defatting, irritation.
MEDICAL CONDITION AGGRAVATED: Pre-existing disorders of the skin, respiratory system, and eyes will be aggravated by over exposure.
ACUTE HEALTH HAZARDS: Eyes: Redness and tearing
Skin: Absorption of large amounts of product causes Eye and Central nervous system damage, and possibly death.
Inhalation: Anesthetic, irritation, prolonged exposure may lead to unconsciousness and death.
Oral: abdominal irritation, nausea, vomiting, and diarrhea, consumption of large quantities causes Eye, Central Nervous System damage, and death
CHRONIC HEALTH HAZARDS: May cause damage to the following organs: blood, kidneys, liver, mucous membranes, bone marrow, central nervous system (CNS).
CARCINOGENICITY: OSHA: No ACGIH: No NTP: No IARC: No OTHER: N/A

SECTION XII – ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: **Isopropyl Alcohol** (67-63-0) LC₅₀ (Fathead Minnow, 96 hrs) 100,000 mg/L **Methyl Alcohol** (67-56-1) LC₅₀ (Fathead Minnow, 96hrs) 29400 mg/L The half-life of methanol in surface water ranges from 24 - 168 hrs.
Ethylene Glycol (107-21-1) LC₅₀ (Trout, 96 hrs) 41,000 mg/L; (Water Flea, 48 hrs) 46,300 mg/L; (Bluegill Fish, 96 hrs) 34,250 mg/L; (Goldfish, 72 hrs) 34,250 mg/L
BIODEGRADABILITY: This product is biodegradable.
BIOACCUMULATION: This product is not expected to bioaccumulate.
SOIL MOBILITY: This product is mobile in soil.
OTHER ECOLOGICAL HAZARDS: None Known

Safety Data Sheet

SECTION XIII – DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Dispose of in accordance with local, state and federal regulations.

RCRA STATUS: 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

SHIPPING BY WATER:

VESSEL (IMO/IMDG)

PROPER SHIPPING NAME: Aerosols, Ltd. Qty.

HAZARD CLASS/DIVISION: 2.1

UN/NA NUMBER: UN 1950

ENVIRONMENTAL HAZARDS WATER: N/A

SECTION XV - REGULATORY INFORMATION

TSCA STATUS: All Chemicals are listed or exempt.

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): **Methanol** (67-56-1) Reportable Quantity = 5,000 lbs **Ethylene Glycol** (107-21-1) Reportable Quantity = 5,000 lbs

SARA 311/312 HAZARD CATEGORIES: Fire Hazard

SARA 313 REPORTABLE INGREDIENTS: **Methanol** (67-56-1), **Ethylene Glycol** (107-21-1)

CLEAN WATER ACT: None

STATE REGULATIONS: **Isopropyl Alcohol** (67-63-0) Right-to-Know acts for Rhode Island, Pennsylvania, Florida, Minnesota, Massachusetts, New Jersey, Tennessee Connecticut hazardous material survey. Isopropyl alcohol Illinois toxic substances disclosure to employee act. California Prop 65: This product contains a chemical(s) known to the State of California to cause birth defects or other reproductive harm.

INTERNATIONAL REGULATIONS: All components are listed or exempted.

NFPA HEALTH: 3

HMIS HEALTH: 3

NFPA FLAMMABILITY: 3

HMIS FLAMMABILITY: 3

NFPA REACTIVITY: 1

HMIS REACTIVITY: 1

NFPA OTHER: None

HMIS PROTECTION: B

SECTION XVI - ADDITIONAL INFORMATION

PREPARATION BY: Jonathon Jarvis

DATE PREPARED: 01/16/2014

REVISION DATE: 09/30/2014

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

DISCLAIMER: To the best of our knowledge, information contained herein is accurate. However there is no assumption of liability for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazard which exists. The information contained in this SDS was obtained from current and reliable sources; however, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions or handling, storage and disposal of this product are beyond the control of the manufacturer, the manufacturer will not be responsible for loss, injury, or expense arising out of the products improper use. No warranty, expressed or

Safety Data Sheet

inferred, regarding the product described in this SDS shall be created or inferred by any statement in this SDS. Various government agencies may have specific regulations regarding the transportation, handling, storage, use, or disposal of this product which may not be covered by this SDS. The user is responsible for full compliance.