ULTRA COOL INC
4839 UNION RD
BEAMSVILLE, ON L3J 0V6
www.ultracool.ca
905-643-0060

PRODUCT: Ultra Cool Dry Charge **CODE: UC-313**

SECTION 01: IDENTIFICATION

Product Identifier	Ultra Cool Dry Charge
Other means of Identification	UC-313
Chemical Family	Mixture. Alkanes.
Recommended use and restrictions	Removes moisture from A/C units.
Initial Supplier Identifier	Ultra Cool Inc 4839 Union Rd Beamsville, ON L3J 0V6 Tel: 905-643-0060 Fax: 905-828-8070
Contact	Tony Miceli: info@ultracool.ca .
Emergency telephone number and any restrictions on the use of that number	Ultra Cool Products: 905-643-0060 (9:00 - 5:00; M-F) . In the event of a transport emergency contact CANUTEC at (613) 996-6666. .

SECTION 02: HAZARD IDENTIFICATION



Signal Word	DANGER.
Hazard Classification	Flammable Gases — Category 1. Gases Under Pressure — Liquefied Gas.
Hazard Statements	H220 Extremely flammable gas . H280 Contains gas under pressure; may explode if heated .
Prevention	P210 Keep away from all sources of heat, sparks, open flames, hot surfaces. No smoking.
Response	P377 Leaking gas fire: Do not extinguish, unless leak can be stopped safely . P381 In case of leakage, eliminate all ignition sources .
Storage	P410 + P403 Protect from sunlight. Store in a well-ventilated place .
Disposal	Dispose of contents and empty containers in accordance with local regulations.
Other hazards	May displace oxygen and cause rapid suffocation . Contact with the product may cause cold burns or frostbite.
Mixture Statement	This product has been classified based upon the information provided by the supplier.

SECTION 03: COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL NAME AND SYNONYMS	CAS #	WT. %
Butane	106-97-8	56
Propane	74-98-6	41
Ethyl alcohol	64-17-5	3

SECTION 04: FIRST-AID MEASURES

FIRST AID MEASURES:

Skin Contact	If frostbite or freezing occurs, immediately flush with plenty of lukewarm water to GENTLY warm the affected area. Do not use hot water. Do not rub affected area. Get immediate medical attention. To avoid the risk of static discharges and gas ignition, soak contaminated clothing thoroughly with water before removing it. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Eye Contact	Check for an remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. . Get medical attention immediately.
Ingestion	Ingestion is an unlikely route of exposure for a gas. Do not induce vomiting. Immediately call a POISON CENTER or doctor/physician.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

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SECTION 04: FIRST-AID MEASURES

Symptoms and effects.....	Harmful if inhaled. Gas can be toxic as simple asphyxiant by displacing oxygen from the air. Dermal contact with rapidly evaporating liquid could result in freezing of the tissues or frostbite. The main symptoms associated with simple asphyxia are headache, nausea, dizziness, incoordination, breathing difficulties, loss of consciousness and possibly anoxia-related death.
Medical attention and special treatment....	Treat symptomatically. Adverse symptoms may include frostbite. In the event of an incident involving this product ensure that medical authorities are provided a copy of this safety data sheet. The administration of oxygen requires additional training.

SECTION 05: FIRE-FIGHTING MEASURES

Suitable and unsuitable extinguishing ..... media	Carbon dioxide, dry chemical, alcohol foam. Do not use water jet. Water can be used to cool and protect exposed material.
Specific hazards arising from the ..... hazardous product, such as the nature of any hazardous combustion products	Contains gas under pressure. Extremely flammable gas. Mixed with air can produce an explosive mixture. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries. Reacts with strong oxidants causing fire and explosion hazard.
Special protective equipment and ..... precautions for fire-fighters	Evacuate area. Fight fire remotely due to the risk of explosion. Eliminate all ignition sources if safe to do so. Cut off gas supply if safe to do so. Cool fire-exposed containers with cold water spray. Heat will cause pressure build up and may cause explosive rupture . Use self-contained breathing apparatus and full firefighting gear. Decomposition and combustion products may be toxic. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 06: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective ..... equipment and emergency procedures	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8). Use special care to avoid static electric charges. No flares, smoking or flames in hazard area. Do not get in eyes, on skin, or on clothing. Do not breathe gas.
Methods and materials for containment .. and cleaning up	Immediately contact emergency personnel. Stop leak if without risk. Use spark-proof tools and explosion-proof equipment. Ventilate area. Do not take up in combustible material such as: saw dust or cellulosic material. Contact competent authorities after a spill.

SECTION 07: HANDLING AND STORAGE

Precautions for safe handling.....	Exposure to this product requires prior training and information. Read the information on the label and the safety data sheet before handling this product. Contains gas under pressure. Put on appropriate personal protective equipment. Do not enter storage areas and confined spaces unless adequately ventilated. Wear appropriate respirator when ventilation is inadequate. Close valve after each use and when empty. Open valve slowly to avoid pressure shock. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work.
Conditions for safe storage, including any incompatibilities	Contents under pressure. Store in accordance with local regulations. Store in a segregated and approved area. Cylinders should be stored upright with valve protection cap in place and firmly secured to prevent falling. Store away from all sources of heat and ignition. Oxidizing agents. Store away from direct sunlight. Keep container tightly closed in a well ventilated area. Keep at temperatures below 52 °C/125 °F.

SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION

INGREDIENTS	ACGIH TLV TWA	ACGIH TLV STEL	OSHA PEL PEL	OSHA PEL STEL	NIOSH REL
Propane	1000 ppm		1800 mg/m3		1000 ppm
	ON: Simple asphyxiant				
Butane	1000 ppm		800 ppm		800 ppm
	ON: STEL 1000 ppm / Explosion hazard				
Ethyl alcohol	Not established	1,000 ppm 15 minutes	1,000 ppm	Not established	1,000 ppm
	ON: STEL 1000 ppm				

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SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION

Appropriate engineering controls..... Gas detectors should be used when toxic gases may be released. Use local exhaust ventilation to maintain airborne concentrations below the TLV. Suitable respiratory equipment should be used in cases of insufficient ventilation or where operational procedures demand it. For guidance on engineering control measures refer to publications such as the ACGIH current edition of 'Industrial Ventilation, a manual of Recommended Practice. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion -proof ventilation equipment.

Individual protection measures, such as personal protective equipment

Eye/Type..... Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Gloves/Type..... Wear skin protection equipment. The selection of skin protection equipment depends on the nature of the work to be performed. Full Contact: Material: Fluorinated rubber. Breakthrough time: >480'. Material thickness: 0.7 mm. Splash Contact: Material: Nitrile rubber. Breakthrough time: 60'. Material thickness: 0.4 mm.

Footwear/Type..... Wear safety boots per local regulations.

Clothing/Type ..... Wear adequate protective clothing to prevent skin contact. Anti-static clothing.

Respiratory/Type..... Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi- purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls.

Other/Type..... Handle in accordance with good industrial hygiene and safety practice. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Emergency eye wash station and shower should be available. Anyone handling this product should wash their hands and face before eating, drinking or using tobacco products. NO SMOKING.

SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

Appearance / physical state ..... Gas. Liquefied.
Colour..... Colorless.
Odour..... Odour added. Characteristic odour.
Odour Threshold (ppm)..... Not available.
pH..... Not applicable.
Melting/Freezing Point..... Not available.
Initial Boiling Point/Boiling Range..... Not available.
Flash Point (deg C), Method..... Not available.
Evaporation Rate..... Not available.
Flammability (solid/gas)..... Extremely flammable gas.
Upper Flammable Limit (% Vol)..... Not available.
Lower Flammable Limit (% Vol)..... Not available.
Vapour Pressure (mm Hg)..... Not available.
Vapour Density (Air=1)..... Not available.
Relative Density/Specific Gravity..... Not available.
Solubility..... Not available.
Coefficient of Water/Oil Distribution..... Not available.
Auto Ignition Temperature (deg C)..... Not available.
Decomposition temperature..... Not available.
Viscosity..... Not applicable.

SECTION 10: STABILITY AND REACTIVITY

Reactivity..... Contains gas under pressure; may explode if heated. Reacts with oxidants causing fire and explosion hazard.
Chemical stability..... Stable at normal temperatures and pressures.
Possibility of hazardous reactions..... Will not polymerize.
Conditions to avoid, including static discharge, shock or vibration ..... Avoid all sources of ignition: heat, sparks, open flame. Avoid sunlight. Avoid extreme temperatures.
Incompatible materials..... Strong oxidizing agents.
Hazardous decomposition products..... No hazardous decomposition products if stored and handled as prescribed/indicated. By fire:. Carbon dioxide, carbon monoxide.

SECTION 11: TOXICOLOGICAL INFORMATION

INGREDIENTS	LC50	LD50
Propane	Not determined	Not determined
Butane	658,000 mg/m3, rat (4 hr)	Not available
Ethyl alcohol	20,000 ppm 10 hours rat	36.2 g/L oral rat

SECTION 11: TOXICOLOGICAL INFORMATION

Route of Exposure	Skin contact, eye contact, inhalation.
ATEs	Not determined.
Symptoms related to the physical, chemical and toxicological characteristics	
Effects of Acute Exposure	Harmful if inhaled. The main symptoms associated with simple asphyxia are headache, nausea, dizziness, incoordination, breathing difficulties, loss of consciousness and possibly anoxia-related death. This product is not irritating but there is possibility of frostbite in contact with the liquefied gas. Harmful if absorbed through the skin .
Effects of Chronic Exposure	Intentional misuse by deliberately concentrating and inhaling this product may be harmful or fatal.
Sensitization	None expected.
Mutagenicity	No known mutagenicity effects.
Reproductive Effects	No known reproductive effects. .
Carcinogenicity of Material	None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA OR ACGIH as a carcinogen.
Specific Target Organ Toxicity - single exposure	This information, if applicable, can be found in Section 2.
Specific Target Organ Toxicity - repeated exposure	This information, if applicable, can be found in Section 2.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity	No product data availalbe. Discharge into the environment must be avoided.
Persistence and degradability	Product data not available.
Bioaccumulation Potential	Product data not available.
Mobility in soil	Product data not available.
Other adverse effects	Product data not available.

SECTION 13: DISPOSAL CONSIDERATIONS

Information on safe handling for disposal . methods of disposal, including any contaminated packaging	Dispose of waste in accordance with all applicable Federal, Provincial/State and local and regulations. DO NOT HEAT OR CUT EMPTY CONTAINERS WITH ELECTRIC OR GAS TORCH.

SECTION 14: TRANSPORT INFORMATION

TDG (Canada- Road)	UN1950, AEROSOLS, Class 2.1, Ltd. Qty.
DOT (US-Road)	UN1950, AEROSOLS, Class 2.1, Ltd. Qty., Consumer Commodity ORM-D.
IMDG (International- Marine)	UN1950, AEROSOLS, Class 2.1, Ltd. Qty.
IATA (International- Air)	UN1950, AEROSOLS, Class 2.1, Ltd. Qty.

SECTION 15: REGULATORY INFORMATION

CEPA Status..... All components of this product are listed on the Domestic Substance List (DSL) .
TSCA Inventory Status..... All components are listed on the TSCA or exempt.

SECTION 16: OTHER INFORMATION

Prepared by	Trivalent Data Systems Ltd. http://www.trivalent.com . Information based on suppliers SDS.
Disclaimer	Information for this material safety data sheet was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries for consequential damages, which may result from the use or reliance on any information contained in this form. .
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