

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration
MATERIAL SAFETY DATA SHEET

May be used to comply with OSHA's Hazard Communications Standard.
29CFR 1910.1200. Standard must be consulted for specific requirements.

SECTION I

MANUFACTURER'S NAME/REPACKAGED BY: ARI / Certified Safety Manufacturing, Inc.	TELEPHONE NO. (816) 483-9090
ADDRESS: 1400 Chestnut Avenue Kansas City, Missouri 64127	
IDENTITY (AS USED ON LABEL): Cold Spray	DATE PREPARED: 12/23/09
DATE REVIEWED:	

SECTION II – HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

HAZARDOUS COMPONENTS (Specific Chemical Identity; Common Name(s)):				
	%	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED
Propane	CAS# 74-98-6	26%	1000 ppm	
Isobutane	CAS # 75-28-5	30%	Not Established	
N-Butane	CAS# 106-97-8	44%	800 ppm	
THIS PRODUCT IS PRODUCED AS A HEALTH CARE ITEM "FOOD, DRUG OR COSMETIC, INTENDED FOR PERSONAL CONSUMPTION BY EMPLOYEES WHILE IN THE WORKPLACE" TO WHICH THE HAZARDOUS COMMUNICATIONS REQUIREMENTS OF; 29CFR1910.1200 (A) & (B) DO NOT APPLY, AS SPECIFICALLY STATED IN 29CFR 1910.1200 (B) (5) (V)				

SECTION III – PHYSICAL DATA

BOILING POINT (°F):	-43.7°F	SPECIFIC GRAVITY (H₂O= 1):	0.5581
VAPOR PRESSURE (mm Hg.):	35	MELTING POINT:	N/A
VAPOR DENSITY (AIR=1):	Approximately 46psig@70°F	EVAPORATION RATE: (Butyl Acetate =1)	N/A
SOLUBILITY IN WATER:	Less than 0.1%by weight @ 70°F	% volatiles by Vol.:	100%
PH:	N/A		
APPEARANCE AND ODOR: Clear colorless, essentially odorless			

SECTION IV – FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used): -156°F(Closed Cup)	FLAMMABLE LIMITS: LEL: 1.8 UEL: 9.5
EXTINGUISHING MEDIA: Dry chemical or CO ₂ after spray has been stopped	
SPECIAL FIRE FIGHTING PROCEDURES: Cool containers with water if exposed to heat or flame with water, move containers away from fire area if this can be done without further risk.	
UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapor is heavier than air and may travel a long distance to a source of ignition and flash back. Containers may explode. Material is extremely flammable.	

SECTION V – REACTIVITY DATA

STABILITY:	STABLE	√	CONDITIONS TO AVOID: Material is stable.
INCOMPATABILITY (Materials to avoid): Avoid contact with strong oxidizing agents such as chlorine, permanganates, and dichromates.			
HAZARDOUS POLYMERIZATION:	MAY OCCUR		CONDITIONS TO AVOID: N/A
	WILL NOT OCCUR	√	
HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon.			

SECTION VI – HEALTH HAZARD DATA

ROUTE(S) OF ENTRY: INHALATION?: This product is asphyxiate and may exhibit anesthetic properties at very high concentrations. Initial symptoms of exposure at these concentrations are disorientation, excitation, headache, and nausea. Continued exposure may result in unconsciousness, coma, and possible death. **SKIN CONTACT?:** Prolonged contact with the liquefied gas or the gas under pressure may cause burning. **EYE CONTACT?:** The gas phase is not expected to cause eye irritation. However, the liquid can cause frostbite and burns. This hazard evaluation is based on the data from similar materials. **INGESTION?:** This material is a gas under normal atmospheric conditions.

SIGNS AND SYMPTOMS OF OVEREXPOSURE: Unconsciousness, coma, and death due to suffocation.

EMERGENCY AND FIRST AID PROCEDURES: Eye: Flush the eyes immediately with fresh water for at least 15 minutes while holding the eyelids open. Remove contact lenses if worn. Seek immediate medical attention. **Skin:** Treat burned or frostbitten skin by flushing or immersing affected areas in lukewarm water. If skin is not burned, keep warm and stimulate circulation with massage. Seek medical aid. **Ingestion:** N/A **Inhalation:** Remove victim from exposure. If not breathing or breathing is difficult, administer artificial respiration and or oxygen as indicated. Seek medical aid.

SECTION VII – SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Remove or eliminate all sources of ignition. Establish ventilation to keep atmospheric concentrations below explosive limits. **Neutralizing chemical:** N/A

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

SECTION VIII – SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (*Specify type*): If ventilation is inadequate, or the airborne concentration goes above the established exposure limit, wear a respirator or gas mask with appropriate cartridges and canisters. (NIOSH approved.)

PRECAUTIONARY STATEMENTS: Packaged under pressure. Do not puncture, incinerate or store above 120°F. Flammable. Keep away from heat source.

VENTILATION: Good mechanical ventilation may be adequate for maintaining airborne concentrations below established exposure limits. If general ventilation is inadequate, supplemental local exhaust may be required.

PROTECTIVE GLOVE: Wear thermally insulated gloves when handling.

EYE PROTECTION: Use protective face shield and chemical goggles where contact with product is possible.

OTHER PROTECTIVE EQUIPMENT: Self-contained respirators should be available for non-routine and emergency situations.

SECTION IX – SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Do not store at temperatures above 120° F. Store in well-ventilated areas, away from heat, direct sunlight, and sources of ignition. Keep away from oxidizing agents.

PRECAUTIONARY STATEMENTS: Containers should not be dropped. Install protective caps for shipment and storage.

THIS INFORMATION AND RECOMMENDATIONS HEREIN ARE TAKEN FROM SOURCES BELIEVED TO BE ACCURATE AS OF THE DATE, HOWEVER CERTIFIED SAFETY MAKES NO WARRANTY WITH RESPECT TO THE ACCURACY OF THIS INFORMATION OR THE SUITABILITY OF THE RECOMMENDATIONS, AND ASSUMES NO LIABILITY TO ANY USE THEREOF.....