Imperial Adhesives Inc.
6315 Wiehe Road
Cincinnati, OH 45237
DOT EMERGENCY CHEMTEL (800)255-3924 (24hrs)
INFORMATION PHONE NO. 513-351-1300 (M-F 8am-5pm ET)

H.M.I.S.

HEALTH 3*

FLAMMABILITY 4

REACTIVITY 2

hese ratings should be use

These ratings should be used only as part of full implemented H.M.I.S. program.

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT INFORMATION

DATE OF PREPARATION 1/14/03

TRADE NAME..... #11 CANISTER

MANUFACTURER CODE I.D. PG107

SECTION 2 - HAZARDOUS INGREDIENTS/COMPOSITION INFORMATION

INGREDIENT	% BY WGT	CAS NO.		ALLOWA EXPOSURE		VP mm Hg@ 20 DEG.C
			PPM MG/	CU.M.	SKIN	
ISOBUTANE		75-28-5 LFL	NONE ESTABL			
PROPANE		74-98-6 OSHA-PEI LFL	L 1000 2.2 UF	1800 L 9.5		760
METHYLENE CHLORIDE	45	75-09-2 TLV-TWA OSHA-PEI OSHA-STI LFL		174 87 437 L 66.0	X 15 MIN	350
1,2 PROPYLENE OXIDE <	1	75-56-9 TLV-TWA OSHA-PE LFL	20 L 20 3.0 UF	50 50 L 37.0	х	

LFL = LOWER FLAMMABILITY LIMIT PERCENT
UFL = UPPER FLAMMABILITY LIMIT PERCENT
SKIN = SKIN ABSORPTION MUST BE CONSIDERED AS A ROUTE OF EXPOSURE
C-CEILING= ALLOW. EXPOSURE LEVEL SHOULD NOT BE EXCEEDED FOR ANY TIME PERIOD
MFR = MANUFACTURER RECOMMENDED EXPOSURE LIMIT
STEL = SHORT TERM EXPOSURE LIMIT
X-SARA 313 = CHEMICAL IS SUBJECT TO REPORTING REQUIREMENTS OF SECTION 313
OF TITLE III OF S.A.R.A. 40 CFR PART 372

SECTION 3 - HAZARDS IDENTIFICATION

EFFECTS OF SHORT TERM OVEREXPOSURE

SWALLOWING

Can cause gastrointestinal irritation, nausea, and vomiting. Aspiration of material into lung may cause chemical pneumonitis which can be fatal.

INHALATION

MAY BE FATAL IF TOO MUCH IS BREATHED!

Propane is considered to be a simple asphyxiant by A.C.G.I.H.. Inhalation of excessive amounts may indirectly cause a health hazard by limiting oxygen availability.

Prexisting heart conditions may be aggravated by exposure to Methylene Chloride.

Exposure to chlorinated solvents may result in liver and kidney, and heart sensitization.

SECTION 3 - HAZARDS IDENTIFICATION (Continued)

INHALATION

Overexposure may cause unconsciousness and possible death.

VAPORS MAY DISPLACE OXYGEN AND CAUSE DIZZINESS UNCONSCIOUSNESS AND DEATH. May cause nose or throat irritation. High concentrations may cause acute central nervous system depression characterized by headaches, dizziness, nausea and confusion.

Reduces the blood's oxygen-carrying capacity by the formation of carboxyhemoglobin. Reduced blood oxygen levels may be harmful to users, especially

those with existing heart disease.

May cause severe eye irritation.

SKIN

May be absorbed through the skin in harmful amounts.

Skin contact with material exiting cylinder may cause frostbite. Eye and respiratory system contact will cause irritation and possible thermal(cold-frostbite) tissue damage.

May cause severe skin irritation.

EFFECTS OF REPEATED OVEREXPOSURE

None currently known SIGNIFICANT LABORATORY DATA WITH POSSIBLE RELEVANCE TO HUMAN HEALTH. Methylene Chloride has been identified as a potential carcinogen by the International Agency For Research on Cancer (IARC Group 2B - Probable Human Carcinogen) and as a substance "Reasonably Anticipated To Be A Carcinogen" by the National Toxicology program (NTP Group 2). These classifications are based on animal studies (mice & rats) which indicated a dose related incidences in lung, liver and mammary tumors. Human epidemolgical studies indicate that the potential carcinogenic effect of methylene chloride is indicate that the potential carcinogenic effect of methylene chloride is dose dependent. This is supported by the observation of an increased incidence of liver cancer subsequent to high exposure (140 -470 ppm) in a film production plant. Workers in another facility who were exposed to a much lower concentration (26 ppm) showed no increase in cause specific death.

The International Agency for Research on Cancer has classified Propylene Oxide as a probable carcinogen (Group 2B) based upon sufficient evidence

from laboratory animal test data.

SECTION 4 - FIRST-AID MEASURES

SWALLOWING

If swallowed immediately give 1 or 2 glasses of water and call a Poison Control Center, Hospital Emergency Room, or Physician for way to induce vomiting. (Never give anything by mouth to an unconscious person).

INHALATION If breathing has stopped, give artifi-Remove to fresh air immediately. cial respiration. Keep warm and quiet. Get medical attention immediately.

Flush with large amounts of water, lifting upper and lower lids occasionally. Continue for at least 15 minutes. Get medical attention.

SKIN

EVE

Remove contaminated clothing. Wash affected area with soap and water. Obtain medical attention if irritation persists.

NOTES TO PHYSICIAN

Do not give stimulants. Epinephrine or ephedrine may adversely affect the heart with fatal results.

SECTION 5 - FIRE-FIGHTING MEASURES

FLAMMABLE LIQUID - CLASS IA NFPA FLAMMABILITY CLASSIFICATION

(-104 DEG.C,) CALCULATED FLASHPOINT -156 DEG.F, EXTINGUISHING MEDIA

Use NFPA Class B Fire extinguishers (carbon dioxide, all purpose dry chemical or alcohol foam) designed to extinguish flammable liquid fires. Polymer foam is preferred for large fires.

SECTION 5 - FIRE-FIGHTING MEASURES (Continued)

UNUSUAL FIRE AND EXPLOSION HAZARDS

During emergency conditions, overexposure to decompostion products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

This product contains halogenated hydrocarbons; contact with aluminum

may cause violent reaction and or explosion. may cause violent reaction and or explosion.

Properly designed and installed "explosion proof" electrical equipment is required. Refer to NFPA 30, NFPA 49, 29 CFR 1910.106 and 29CFR 1910.110.

Manufacturer's of Methylene Chloride report no flash point using the TOC, TCC, and COC methods. However, it is known that methylene chloride does have a flammable range 14% (LFL) and 22% (UFL) at 25 deg C. These represent very high concentrations that would present very serious employee exposures relative to OSHA and ACGIH standards. Due to the lack of a typical flashpoint some confusion exists regarding the assignment of HMIS flammability ratings. Some suppliers have suggested that a flammability rating of 1 should be assigned to methylene chloride. Others suggest that the lack of a true flashpoint requires that a zero flammbility rating be assigned. Prevent circumstances which would result in methylene chloride concentrations within the flammable range as well as exposure of liquid or vapor to sources of ignition. Please keep in mind that the presence of other flammable substances in this or other product mixtures may alter the flashpoint and increase the flash fire risk and the HMIS flammability

DANGER! EXTREMELY FLAMMABLE. VAPORS MAY CAUSE FLASH FIRE.

VAPOR OR CONTAINER MAY EXPLODE IF EXPOSED TO FLAME, HEAT, OR OTHER IGNITION

SOURCE.

Isolate from heat, electrical equipment, sparks and flame. Containers may explode when exposed to extreme heat. Store in separate and enclosed area that will contain cans if they should explode at elevated temperatures. Do not apply to very hot surfaces. SPECIAL FIRE FIGHTING PROCEDURES

Firefighters should wear self-contained breathing apparatus. Water may be ineffective, but may be used to cool exposed containers to prevent pressure build-up and possible auto-ignition or explosion when exposed to extreme heat. If water is used, fcg nozzles are preferable.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED The use of a NIOSH/MSHA approved, TC19C, air-supplied breathing apparatus may be required. Consult with a qualified occupational health and /or

safety professional.

Wear respirators, eye, hand, and body protection appropriate for the size of the spill and the exposures encountered. Keep spectators away. Eliminate all ignition sources (flames, hot surfaces, and sources of electrical, static or frictional sparks). Dike and contain spill with inert material (e.g. sand, earth). Transfer liquids to covered metal containers for recovery or disposal, or remove with inert absorbent. Use only non-sparking tools. Place absorbent diking materials in covered metal containers for disposal. Prevent contamination

of sewers, streams, and groundwater with spilled material or used absorbent.

WASTE DISPOSAL

Dispose in accordance with federal, state and local regulations. Observe precautions for disposal of flammable materials.

RCRA CLASSIFICATION

This product, if discarded directly, would be classified a hazardous waste based on its ignitability characteristic, i.e. has a flash point of 140 deg. F. (60 deg.C) or less. The proper RCRA classification would be D001.

ENVIRONMENTAL HAZARDS

None known

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE DO NOT INCINERATE, PUNCTURE OR MISHANDLE CONTAINER VALVES OR HOSES. ALL

SECTION 7 - HANDLING AND STORAGE (Continued)

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE ATTACHMENTS MUST BE IN GOOD CONDITION AND PROPERLY DESIGNED FOR USE WITH THIS CONTAINER.

Do not store above 115 deg.F (46 deg.C) store large quantities in compliance with OSHA 29CFR1910.106.

Exposure to direct sunlight or other sources of heat may cause container to rupture or explode.

OTHER PRECAUTIONS

THIS PRODUCT IS INTENDED TO BE USED ONLY BY THE PROFESSIONAL (INDUSTRIAL) APPLICATOR UNDER PROPERLY CONTROLLED CONDITIONS. A QUALIFIED OCCUPATIONAL HEALTH PROFESSIONAL SHOULD EVALUATE EXPOSURES TO THIS PRODUCT.
THE USE OF THIS PRODUCT IN CONFINED AREAS MAY RESULT IN DANGEROUS AIRBORNE CONCENTRATIONS. THIS MAY CAUSE THE SERIOUS HEALTH EFFECTS DESCRIBED IN

SECTION III OF THIS MSDS.

If cylinder is returnable do not dispose. See see additional cylinder/ canister labels. Return via authorized agent, properly labeled, with valve outlet, plugs or caps secured and valve protection in place. Protect cylinders from physical damage. Non-returnable cylinders/canisters must be disposed of in accordance with local, state and federal regulations. Store in cool dry, well ventilated area.

cylinders and combustible

Do not puncture or incinerate. Do not spray near flame or hot surfaces. Avoid breathing vapor or spray mist. Keep out of reach of children.

SECTION 8 - EXPOSURE CONTROLS

RESPIRATORY PROTECTION

Proper selection of respiratory protection depends upon many factors including duration/level of exposure and conditions of use. In general exposure to organic chemicals such as those contained in this product may not require the use of respiratory protection if used in well ventilated areas. In restricted ventilation areas a NIOSH approved chemical cartridge respirator may be required. Under certain conditions, such as spraying, a mechanical prefilter may also be required. In confined areas use a NIOSH/MSHA approved air supplied respirator. If the TLV's listed in Section II are exceeded use a properly fitted NIOSH/MSHA approved respirator with an appropriate protection factor. Refer to OSHA 29 CFR 1910.134 "Respiratory Protection", and "Respiratory Protection A Manual And Guideline, American Industrial Hygiene Assoc."

VENTILATION

SUPPLIED AIR RESPIRATORS MAY BE REQUIRED. CONSULT WITH AN INDUSTRIAL HYGIENE OR SAFETY PROFESSIONAL FOR INFORMATION REGARDING RESPIRATOR USE AND VENTILATION DESIGN.

Provide general dilution and local exhaust ventilation in sufficient volume and pattern to keep concentrations of hazardous ingredients listed in Section II below the lowest exposure limit stated. Remove decomposition products that are generated when welding, cutting, or brazing objects coated with this product. Refer to "Industrial Ventilation - A Manual of Recommended Practice " ACGIH .

HAND PROTECTION

Wear appropriate impermeable gloves (North- Silver Shield).

EYE PROTECTION

Wear safety glasses meeting the specifications of ANSI Z87.1 where no contact with the eye is anticipated. Chemical safety goggles meeting the specifications of ANSI Z87.1 should be worn whenever there is a possibility of splashing or other contact with the eyes.
OTHER PROTECTIVE EQUIPMENT

Eyewash facility, safety shower.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

BOILING RANGE -44 DEG.F. (-42 DEG.C.) TO 106 DEG.F. (41 DEG.C.)

% VOLATILE BY VOLUME 85 VAPOR DENSITY Heavier than air.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES (Continued)

WEIGHT LB./GAL. 8.2 VOC 17.01 lb/gal solids 2041 g/l solids CALCULATED SPECIFIC GRAVITY 1.0

All Physical data determined at 68 DEG. F. (20 DEG. C.) 760 mm Hg * Negligibly Photochemically Reactive Materials

SECTION 10 - STABILITY AND REACTIVITY

STABILITY

Avoid open flames, welding arcs or other high temperature sources which induce thermal decomposition.

CONDITIONS TO AVOID

Avoid excessive heat (>115 F (46 C) and sources of ignition.

INCOMPATABILITY (MATERIALS TO AVOID)

Aluminum

Strong acids or alkaline materials.

Oxidizing materials.

This product contains halogenated hydrocarbons which may react with aluminum. Avoid contact with aluminum in situations in which pressures may be elevated or in which reactions may be enclosed. Do not use spray equipment systems containing aluminum parts.

HAZARDOUS DECOMPOSITION PRODUCTS

Burning, including when heated by welding or cutting, will produce smoke, carbon monoxide and carbon dioxide. In addition, phosgene, formaldehyde, hydrogen chloride, chlorine, may be generated.

HAZARDOUS POLYMERIZATION

Will not occur CONDITIONS TO AVOID

This product contains halogenated hydrocarbons which may decompose to form hydrogen chloride, chlorine, and phosgene when in contact with hot surfaces, open flames, and U.V. radiation. Do not use this material near welding operations.

SECTION 11 - TOXICOLOGICAL INFORMATION

No information available.

SECTION 12 - ECOLOGICAL INFORMATION

No information available.

SECTION 13 - DISPOSAL CONSIDERATIONS

See Section 6.

SECTION 14 - TRANSPORT INFORMATION

MODE PROPER SHIPPING NAME CLASS I.D.# PKG GRP

ITEM: PG107 DESC/SIZE:

DOT (HM-181)
(DOMESTIC SURFACE) ********** UNKNOWN ********

DO NOT SHIP UNTIL CHECKED !!!!

SECTION 14 - TRANSPORT INFORMATION (Continued)

Proper Shipping Name for a bulk container can differ significantly from the Proper Shipping Name for a bulk container can differ significantly from the Proper Shipping Name for the same product packaged in a non-bulk container. This can also be true for products shipped via different modes of transportation (i.e. ground, air, ocean). The descriptions provided above are intended to provide some guidance. However, these descriptions may not apply to your package size or mode of shipment. The U.S. Code of Federal Regulations, 49 CFR - Transportation, regulations, and the policies established by some transporters, require that the shipper properly classify and assign a Proper Shipping Name, and label, mark and package the material properly. Therefore, the user of this information is cautioned to consult with applicable regulations, and with qualified advisors prior to the repackaging and or reshipment of this or other any advisors prior to the repackaging and or reshipment of this or other any product which contain this product.

SECTION 15 - REGULATORY INFORMATION

WARNING: This product contains METHYLENE CHLORIDE; 1,2 PROPYLENE OXIDE;

chemicals known to the State of California to cause cancer.

CAS NO. DETAIL INVENTORY LIST INFORMATION INGREDIENT

DSL 75-28-5 **ISOBUTANE**

74-98-6 DSL PROPANE

METHYLENE CHLORIDE 75-09-2 TSCA(8a CAIR)

TSCA(8a PAIR) TSCA (8d)

DSL

1,2 PROPYLENE OXIDE 75-56-9 TSCA(12b)

TSCA(4)

TSCA(4 term) TSCA(8a CAIR)

TSCA(8a PAIR)

TSCA (8d)

DSL

DETAIL INVENTORY LIST DESCRIPTION

TSCA/Toxic Substances Control Act

(12b) Notices of Export

(4) Test Rules

(4 term) TSCA 4 term

(8a CAIR) Comprehensive Assessment Information Rules

(8a PAIR) Preliminary Assesment Information Rules

(8d) Health and Safety Reporting Rules DSL/Canadian Domestic Substance List

SECTION 16 - OTHER INFORMATION

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. WHILE THE INFORMATION IS BELIEVED TO BE RELIABLE, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THIS DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. SINCE THE USE OF THIS INFORMATION AND THE CONDITIONS AND USE OF THIS PRODUCT ARE CONTROLLED BY THE USER, IT IS THE USER'S OBLIGATION TO DETERMINE THE CONDITIONS OF SAFE USE OF THE PRODUCT.

The Corporate Safety and Environmental Affairs Department is responsible for the preparation of this Material Safety Data Sheet.

BRONCO INDUSTRIAL PROD 11037 S FOREST RIDGE ROAD ATTN: RUSS ALEXANDER OREGON CITY