



INTERNATIONAL DIAMOND SYSTEMS, INC.
MATERIAL SAFETY DATA SHEET
CLEANER AND ADHESIVE REMOVER
(1 GALLON CANISTER)

SECTION 1: PRODUCT IDENTIFICATION

Product Name: Cleaner and Adhesive Remover (1 Gallon canister)
Trade Name and Synonyms: HELMISOLV 52-069
Chemical Name and Synonyms: Solvent Blend
Molecular Formula: Blend
Product Description: Flammable, organic solvent with liquefied petroleum gas.
24-Hour Emergency Phone: 1-800-424-9300 (CHEMTREC)
Manufacturer's Name: HELMITIN INC.
Manufacturer's Address: 11110 Airport Road
Olive Branch, MS 38654
CANADA: 99 Shorncliffe road
Toronto, Ontario M8Z 5K7
Canada Emergency Phone: 613-996-6666 (CANUTEC)

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

MATERIAL	CAS #	% BY WT.	OSHA	
			EXPOSURE GUIDELINE TLV-TWA	PEL-STEL
d-LIMONENE	5989-27-5	30-60%	NOT AVAILABLE	
ISOPROPANOL	67-63-0	30-60%	400 ppm	400 ppm
LIQUID PETROLEUM GAS	68476-86-8	20-25%	1,000 ppm	1,000 ppm

SECTION 3: HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: Causes eye irritation. Can cause severe respiratory irritation. Can cause severe central nervous system depression. **FLAMMABLE**. Forms flammable vapors. Cans exposed to high temperatures may explode.

POTENTIAL HEALTH EFFECTS:

Eye: May cause severe eye irritation. May damage eyes.
Skin: Prolonged exposure may cause skin irritation. May cause drying or flaking of skin. Skin absorption of material may cause systemic toxicity.
Ingestion: Ingestion may cause severe injury to intestinal tract, liver kidneys, stomach, throat, lungs, mouth and mucous membrane. Harmful or fatal if swallowed. Do not ingest.
Inhalation: Overexposure may cause severe respiratory tract irritation. Prolonged overexposure may cause central nervous system depression with

narcotic effects (headache, dizziness, unconsciousness). Keep exposure below OSHA exposure limits.

CHRONIC EFFECTS/ CARCINOGENICITY (CANCER CAUSING)

IARC: Not suspected as a human carcinogen
OSHA: Not suspected as a human carcinogen
NTP: Not suspected as a human carcinogen
OTHER: None known

SECTION 4: FIRST AID MEASURES

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
Skin: Wash with soap and water. Get medical attention if irritation develops or persists. Immediately remove contaminated clothing.
Ingestion: If swallowed, seek medical attention immediately. Do not induce vomiting. This material is an aspiration hazard. Can enter lungs and cause damage.
Inhalation: remove to fresh air. Restore breathing if necessary. Get medical attention. This material can cause lung damage.

DO NOT LEAVE VICTIM UNATTENDED.

SECTION 5: FIRE FIGHTING PROCEDURES

OSHA FLAMMABILITY CLASS: FLAMMABLE LIQUID

Class: IA
Flash Point: -156 °F Setaflash Method
Lower Explosive Limit: 1.8%
General Hazard: Flammable liquid. May release flammable mixtures when temperatures are at or above the flash point. Toxic gasses will form upon combustion. Closed containers may explode when exposed to extreme heat. Vapors are heavier than air and may travel a considerable distance to a source of ignition where they can ignite, flashback, or explode. May create vapor/air explosion hazard indoors, outdoors and in sewers. **DO NOT STORE AT TEMPERATURES ABOVE 120°F**
Fire Fighting Equipment: Respiratory and eye protection required for fire fighting personnel. Full protective equipment and a self-contained breathing apparatus (SCBA) should be used in all indoor fires and any large outdoor fires.
Hazardous Combustion Products: Carbon monoxide, carbon dioxide, smoke and fumes, hydrocarbon fragments.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Flammable Liquid: Keep all sources of ignition and hot metal surfaces away from spill. Isolate the danger area and keep unauthorized personnel out. Stop spill if it can be done with minimal risk. Wear appropriate protective

equipment including respirator protection as conditions warrant (see section 8). Prevent additional discharge of material. Notify the appropriate authorities immediately. Contain spilled liquid with sand, earth or other non-combustible inert absorbent material. Prevent run off from entering storm sewers, ditches or waterways. Treat waste material with same precautions as the adhesive.

Release to the environment may be reportable under environmental regulations.

SECTION 7: HANDLING AND STORAGE

Handling:	Open container slowly to relieve any pressure. Do not enter confined spaces such as tanks without following proper entry procedures as described in OSHA regulations at 29 CFR 1910.146. Do not breathe vapors. The use of respiratory protection is recommended when airborne concentrations of vapor exceed exposure guidelines. Wash thoroughly after handling. Do not wear contaminated clothing or shoes. Wear appropriate protective gloves and clothing to prevent prolonged or repeated skin contact. Avoid contact with eyes.
“EMPTY” Containers:	Empty containers may contain liquid and vapor residue and may be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury or death. “Empty” drums should be completely drained, properly bunged, and promptly shipped to the supplier or a drum reconditioner. All containers should be disposed of on accordance with government regulations.
Hazardous Polymerization:	Will not occur.
Storage:	Keep containers tightly closed. Use and store this material in cool, dry, well-ventilated area away from heat, direct sunlight, hot metal surfaces, and all sources of ignition. Post area “no smoking or open flames.” Store only in approved containers. Protect containers against physical damage. Indoor storage should meet OSHA standards and appropriate fire codes.

Wash with soap and water before eating, drinking, smoking or using toilet facilities.

Consult NFPA and OSHA codes.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection:	A NIOSH/MSHA approved air-purifying respirator with an organic vapor cartridge may be used under conditions where airborne concentrations are expected to exceed exposure guidelines. Protection provided by air purifying respirators is limited. Refer to respirator manufacturer’s selection guide for appropriate respirator for conditions encountered. If in doubt, seek the advice of an industrial hygienist or safety professional for appropriate air purifying respiratory equipment. Use positive pressure air supplied respirator if there is potential for an uncontrolled release, exposure levels are not known, or in any other circumstances where air-purifying respirators
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may not provide adequate protection. Respiratory protection does not provide safety from flammable atmospheres. Do not enter concentrations of vapors at, near or above the lower flammable limit (LFL). When respiratory protection is used, a respiratory protection program meeting OSHA regulations at 29 CFR 1910.134 must be followed.

Skin Protection:	The use of gloves impermeable to the specific material handled is advised to prevent prolonged or repeated skin contact. Where splashing is likely to occur, aprons impermeable to the specific material may be worn. Refer to the gloves and protective clothing manufacturer's selection guide for appropriate material.
Eye Protection:	Approved chemical splash goggles should be worn to safeguard against potential eye contact, irritation or injury. Where splashing is likely to occur, hard hats and face shields may be used to provide additional protection. Eye wash facilities should be available in the work area.
Engineering Controls:	Provide sufficient mechanical ventilation to maintain exposure below TLV(s). The use of local exhaust ventilation is recommended. Provide mechanical ventilation of confined spaces. If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure guidelines, additional ventilation or exhaust systems may be required. Use explosion proof ventilation equipment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Odor and Appearance:	Clear, free flowing liquid with pungent solvent odor.
Specific Gravity:	0.9 (68°F, 20°C) pH: N/A
Boiling Point:	120°F Freeze Point: <10°F
Approximate Viscosity:	Thin Liquid (75°F, 24°C)
Solubility in Water:	Not Soluble (<60% Soluble)
% Solids by Weight:	.01%
Percent Volatile (by weight):	99.9
Vapour Pressure (mm of mercury):	70 psi
Vapour Density (air = 1):	Heavier
Evaporation Rate (Butyl Acetate = 1):	Faster

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability:	Keep away from flames and spark producing equipment. Not dangerously unstable. Avoid build-up of static electricity.
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Incompatible Materials: Strong oxidizing agents, strong reducing agents, acids, bases, or unstable chemicals, chloroform, nitric compounds, peroxides sulfur dichloride, strong alkalis.

Hazardous Polymerization: Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Skin: Dermal LD50 = NOT AVAILABLE mg/kg
Ingestion: Oral LD50= NOT AVAILABLE mg/kg
Chronic: Liver and kidney damage. May cause corneal opacity. May cause central nervous system depression causing headaches, nausea, dizziness and in extreme cases, convulsions and coma. May cause birth defects.

Chronic/Cardinogenicity
(Cancer Causing): This product contains the following chemicals known to the state of California (Proposition 65) to cause cancer or reproductive toxicity:
NONE KNOWN

Other: None known

SECTION 12: ECOLOGICAL INFORMATION

No data available

SECTION 13: DISPOSAL CONSIDERATION

Dispose of in accordance to ALL federal, state and local regulations.

Cleaner and adhesive remover , 1 gallon canister (Helmisolv) is a hazardous waste if discarded. (CFR., Vol. 40, part 261, pgs. 51-114).

See section 2, page 1 of this MSDS for hazardous ingredients

Proper waste disposal is the responsibility of the owner of the waste!

Call Helmitin Inc. for further information.

SECTION 14: TRANSPORT INFORMATION

D.O.T.; TDG;

Proper Shipping Name: Liquified Gas, Flammable N.O.S.
(Insobutane, Propane)

Hazard Classification: 2.1

UN and PIN#: 3161

Packing Group:

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All packaged material must be labeled in accordance with DOT and OSHA standards.

SECTION 15: REGULATORY INFORMATION

OSHA: Hazardous material by definition of hazard communication standard (29 CFR 1910.1200).
Class: IA Flammable Liquid
Section 313: This product contains the following substances subject to the reporting requirements of section 313 of Title III of Superfund Amendments and Reauthorization Act of 1986 and CFR part 372: NONE KNOWN
V.O.C.: <0.1 Lbs/Gal (SCAQMD Rule 1168)
<12 G/L

HAZARD INDEX:

0: MINIMAL HAZARD 2: MODERATE HAZRAD
1: SLIGHT HAZARD 3: SERIOUS HAZARD
4: SEVERE HAZARD

HMIS RATINGS:

HEALTH: 2 REACTIVITY: 0
FLAMMABILITY: 4 PERSONAL PROTECTION: Depends on
Application and ventilation.

TSCA: Components of this product are listed on the TSCA inventory.

SECTION 16: OTHER INFORMATION

Revision Number: 1

All employees or contractors, etc., who use this product must have access to this material safety data sheet.

Prepared By: Helmitin, Inc. Laboratory (M.W.)

SECTION 17: DEFINITIONS

Aspiration Hazard = The danger of drawing material into the lungs, leading to an inflammatory response that can be fatal.

CFR = Code of Federal Regulations. A collection of regulations established by law.

Carcinogen = A material that either causes cancer in humans, or is considered capable of causing cancer in humans.

Combustible = A term used to classify certain materials with low flash points that ignite easily. For OSHA it has a flash point >100°F but below 200°F.

D.O.T. = U.S. Dept. of Transportation

Flammable = A material that gives off vapors that readily ignite at room temperature. OSHA defines flammable as a material with a flash point <100°F.

Flash Point = The lowest point at which a liquid gives off sufficient vapor to form an ignitable mixture with air.

Hazardous = Any substance or mixture of substances having properties capable of producing adverse effects on the health or safety of a human.

IARC = International Agency For Research On Cancer

Irritant = A substance capable of causing an inflammatory effect on living tissue by chemical action at sight of contact.

LD50 = Lethal dose 50. The single dose of a substance that causes death of 50% of an animal population from exposure to the substance from any route other than inhalation.

L.E.L. = Lower explosive limit. The lowest concentration of vapor that burns or explodes when an ignition source is present at ambient temperatures.

L.F.L. = Lower Flammable Limit. Same as L.E.L.

MSHA = Mine Safety and Health Administration

N.A. = Not applicable or not available

N.E. = Not established

N.F.P.A. = National Fire Protection Association

N.I.O.S.H. = National Institute of Occupational Safety and Health

N.T.P. = National Toxicology Program

O.S.H.A. = The Occupational Safety and Health Administration

P.E.L. – S.T.E.L. = Permissible exposure limit, short-term exposure limit.

Systemic Toxicity = Adverse effects induced by a substance which affects the body in a general manner rather than locally.

T.L.V. – T.W.A. = Threshold Limit Value, Time Weighted Average

T.S.C.A. = Toxic Substance Control Act

Toxic = Any chemical or material that has evidence of an acute or chronic health hazard and is listed in the NIOSH REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES.

V.O.C. = Volatile Organic Compound

DISCLAIMER

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