

## Material Safety Data Sheet

### SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**MANUFACTURER: HELMITIN INC.**

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416-239-3105

**EMERGENCY PHONE:**

800-424-9300 (CHEMTREC)

613-996-6666 (CANUTEC)

**TRADE NAME AND SYNONYMS:**.....HELMIPRENE 4535, HELMIPRENE 4535RD**CHEMICAL NAME AND SYNONYMS:** .....Polychloroprene solvent adhesive**CHEMICAL FAMILY:** .....Synthetic elastomers, resins and solvents**MOLECULAR FORMULA:** .....Not applicable**PRODUCT DESCRIPTION:** .....Polychloroprene solvent adhesive

### SECTION 2 - HAZARDOUS INGREDIENTS

MATERIAL	% BY WEIGHT	CAS NUMBER	EXPOSURE GUIDELINES		
			ACGIH TLV	OSHA TLV-TWA	OSHA PEL-STEL
Acetone	15-40	67-64-1	500 ppm	1000 ppm	Not listed
Heptane	10-30	142-82-5	400 ppm	500 ppm	Not listed
Toluene	10-30	108-88-3	20 ppm	200 ppm	300 ppm

### SECTION 3 – HAZARDOUS IDENTIFICATIONS

**EMERGENCY OVERVIEW:** Causes eye irritation. Can cause severe respiratory irritation. Can cause severe central nervous system depression. FLAMMABLE. Forms flammable vapours.

**POTENTIAL HEALTH EFFECTS:**

EYE CONTACT: May cause severe irritation. May damage eyes.

SKIN CONTACT: 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 membranes. 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 (headaches, dizziness, unconsciousness). Keep exposure below OSHA exposure limits.

**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 MEASURES AND FIRE HAZARDS**

**OSHA FLAMMABILITY CLASS:**.....IB

**FLASHPOINT:** .....<0°F, <-18°C (Tag Closed Cup)

**LOWER EXPLOSIVE LIMIT:** ..... 1.1%

**UPPER EXPLOSIVE LIMIT:** ..... 12.8%

**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. Vapours are heavier than air and may travel a considerable distance to a source of ignition where they can ignite, flashback or explode. May create vapour/air explosion hazard indoors, outdoors, and in sewers.

**FIRE FIGHTING EQUIPMENT:** Respiratory and eye protection required for firefighting 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, chlorine, hydrochloric acid.

**SECTION 6 – ACCIDENTAL RELEASE MEASURES (SPILLS OR LEAKS)**

**GENERAL INSTRUCTIONS:** FLAMMABLE LIQUID. Keep all sources of ignition and hot metal surfaces away from spill. Isolate the danger area and keep out unauthorized personnel. Stop spill if it can be done with minimal risk. Wear appropriate protective equipment including respiratory 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. Use non-spark tools to transfer absorbed waste material into properly identified drums. Treat waste material with same precautions as the flammable adhesive.

Do not use solvent or flammable liquid to help clean up an accidental release.

Release to the environment may be reportable under environmental regulations.

## SECTION 7 – HANDLING AND STORAGE

**HANDLING:** Open container slowly to relieve any pressure. Bond and ground all equipment when transferring from one vessel or container to another. This material can accumulate static charge by flow or agitation. Vapours can be ignited by static discharge. Use spark proof tools and explosion proof equipment as directed by local fire codes. 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 vapours. The use of respiratory protection is recommended when airborne concentrations of vapour 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.

**STORAGE:** Keep containers tightly closed. Use and store this material in a 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.

**EMPTY CONTAINERS:** May contain liquid and vapour 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 and 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 in accordance with governmental regulations.

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

Consult NFPA and OSHA codes.

## SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

**RESPIRATORY PROTECTION:** A NIOSH/MSHA approved air purifying respirator with an organic vapour 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 may not provide adequate protection. Respiratory protection does not provide safety from flammable atmospheres. Do not enter concentrations of vapours 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 glove 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**

**APPEARANCE AND ODOUR:** ..... Light amber or red liquid, mild aromatic odour

**SPECIFIC GRAVITY:** ..... 0.856 (68°F – 20°C)

**pH:** ..... Not applicable

**BOILING POINT:** ..... 167°F, 75°C

**FREEZING POINT:** ..... <20°F, <-7°C

**SOLUBILITY IN WATER:** ..... Not soluble

**% SOLIDS (BY WEIGHT):** ..... 19 ± 2%

**% VOLATILE (BY WEIGHT):** ..... 81 ± 2%

**VAPOUR PRESSURE (MM OF MERCURY):** ..... 180 mm of Hg @ 68°F, 20°C

**VAPOUR DENSITY (AIR = 1):** ..... 2.7

**EVAPORATION RATE (BUTYL ACETATE = 1):** ..... 8.3

**EVAPORATION RATE (ETHYL ETHER = 1):** ..... Slower than ethyl ether

**SECTION 10 – STABILITY AND REACTIVITY**

**CHEMICAL STABILITY:** Keep away from flames and spark producing equipment. Not dangerously unstable. Avoid build-up of static electricity.

**INCOMPATIBLE MATERIALS:** Strong oxidizing agents, strong reducing agents, acids, bases, or unstable chemicals, chloroform, nitric compounds, peroxides, sulfur dichloride, strong alkalis.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Hazardous decomposition is unlikely to occur, but under fire or extreme heat conditions, carbon monoxide, carbon dioxide, smoke and fumes, hydrocarbon fragments, chlorine and hydrochloric acid can be released.

**HAZARDOUS POLYMERIZATION:** Will not occur.

**SECTION 11 – TOXICOLOGICAL INFORMATION**

<b>MATERIAL:</b>	<b>SKIN (Dermal LD50):</b>	<b>INGESTION (Oral LD50):</b>
Acetone	20 g/kg (Rabbit)	5.8 g/kg Oral/Rat
Heptane	2.0 g/kg (Rabbit)	>15 g/kg Oral/Rat
Toluene	12.1 g/kg (Rabbit)	3.0 g/kg Oral/Rat

**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.



**HMIS RATINGS:**

HEALTH: ..... 2

FLAMMABILITY:..... 3

REACTIVITY: ..... 0

PERSONAL PROTECTION:.. Depends on application and ventilation.

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

**WHMIS INFORMATION:**

Class B, Division 2 - Flammable liquid

Class D, Division 2, Subdivision A - Very toxic

Class D, Division 2, Subdivision B - Toxic, Eye and skin irritant

**SECTION 16 – OTHER INFORMATION**

Version No. 8

All employees or contractors, etc., who use this product must have access to this Material Safety Data Sheet.

**PREPARED BY:** Helmitin Inc. Laboratory

(SG)

**SECTION 17 – DEFINITIONS**

**ACGIH :** American Conference of Governmental Industrial Hygienists.

**ASPIRATION HAZARD:** The danger of drawing material into the lungs, leading to an inflammatory response that can be fatal.

**CFR:** Code of Federal Regulations (U.S.). 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 greater than 100°F (38°C) but below 200°F (93°C).

**DOT:** U.S. Dept. of Transportation.

**FLAMMABLE:** A material that gives off vapours that readily ignite at room temperatures. OSHA defines flammable as a material with a flash point less than 100°F (38°C).

**FLASH POINT:** The lowest point at which a liquid gives off sufficient vapour 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 the site 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.

**LEL:** Lower Explosive Limit. The lowest concentration of vapour that burns or explodes when an ignition source is present at ambient temperatures.

**LFL:** Lower Flammable Limit. See L.E.L.

**MSHA:** Mine Safety and Health Administration (U.S.).

**NFPA:** National Fire Protection Association (U.S.).

**NIOSH:** National Institute of Occupational Safety and Health (U.S.).

**NTP:** National Toxicology Program (U.S.).

**OECD:** Organisation for Economic Co-operation and Development.

**OSHA:** The Occupational Safety and Health Administration (U.S.).

**PEL-STEL:** Permissible Exposure Limit, Short Term Exposure Limit.

**SCBA:** Self-contained breathing apparatus.

**SYSTEMIC TOXICITY:** Adverse effects induced by a substance which affects the body in a general manner rather than locally.

**TDG:** Transportation of Dangerous Goods (Canada).

**TLV-TWA:** Threshold Limit Value, Time Weighted Average.

**TSCA:** 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.

**VHAP:** Volatile Hazardous Air Pollutant

**V.O.C.:** Volatile Organic Compound.

**WHMIS:** Workplace Hazardous Materials Information System (Canada).