

LEICESTER'S N.Z. LTD

SAFETY DATA SHEET

Product	PIC-FUME CHLOROPICRIN	Page: 1/4
MSD code: 006416		Date: 25/08/2010
UN Number: 1580		Supersedes: 25/05/2005

1. Identification of the substance & the company

Chemical name	Chloropicrin (CP) with 4
CAS number	000076-06-2
Chemical formula	Chloropicrin, Trichloronitromethane, Nitrochloroform, Nitrotrichloromethane
Company identification	Leicester's NZ Ltd
Address and telephone	6 Waitane Place, Onekawa, Napier 06 843 5330 or 0800 658 158
Manufactured by	Trinity Manufacturing Inc
Emergency details	Leicester's NZ Ltd 06 843 5330 or 0800 658 158
Emergency Telephone Numbers:	Leicester's N.Z. Ltd 0800 658 158 POISONS CENTRE 0800 243 622 Emergencies only

2. Hazardous Ingredients

Chemical	Percent	ACGIH TLV	OSHA PEL	RQ
Chloropicrin	>99	0.1 ppm	0.1 ppm	N/A

3. Physical Data

Appearance	Clear, colorless, oily liquid (may be dyed red)
Odour	Strong, sharp, irritating. Causes coughing, tearing.
Percent Volatile	100%
Solubility in Water	0.16 gram/100ml@77°F
Boiling Point	234°F (112°C)
Specific Gravity	1.65
Weights of Liquid	13.7 lb/gal US
Vapor Density	5.7 (air=1)
Vapor Pressure	18.3 mmHg@68°F
Molecular Weight	164.39

4. Fire and Explosion Hazard Data

Flash point	None (non-combustible)
Flammable limits	Not flammable
Extinguishing media	Water fog for cooling of fire exposed containers. All conventional fire extinguishing media are suitable.
Special fire fighting procedures	Evacuate area, wear self contained breathing apparatus and full protective clothing. Cool with water from a distance upwind.
Unusual fire and explosion hazard	Not explosive but heat and ultraviolet light may produce phosgene and other toxic compounds. Cylinder may rupture if heated by fire.

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5. Emergency First Aid

Remove victim to fresh air and take off contaminated clothing. Get medical attention immediately if exposure is severe. Keep patient warm. Aerate and/or launder any contaminated clothing, shoes, gloves etc.

Eyes	Hold eyelids open and flush with gentle stream of water for 15 minutes. Obtain medical help.
Inhalation	If breathing has stopped, give artificial respiration. Place patient in half upright position. Obtain medical help. Treat for pulmonary edema.
Skin	Wipe liquid off and wash area thoroughly with soap and water. Obtain medical help.
Ingestion	Get medical attention immediately.

6. Hazard Data

DANGER! May be fatal if inhaled or swallowed. Severe damage follows liquid contact with eyes or skin. Airborne exposure to concentrations of 0.1-0.3 pip may cause immediate tearing and irritation of the eyes and irritation of the respiratory tract or contaminated body surfaces. The 4-hour inhalation LC50 in rats is 18.9 ppm and the inhalation sensory irritation (RD50) in mice is 2.34 ppm. The FIFRA toxicity classification is Category 1 due to acute lethality and severe irritation.

Permissible exposure limit	0.1ppm(0.7mg/m ³) OSHA; ACGIG TLV: 0.1ppm
Effect of exposure to humans	Target organs include eyes, skin, respiratory tract and tissue associated with portal-of-entry into the body. Individuals with a pre existing disease or history of ailments involving the skin, eyes, or respiratory tract may be at greater risk of developing adverse health effects from exposure.
Eyes	Exposure to vapour in low concentrations (<0.3 ppm) can cause reversible eye irritation. Direct contact with liquid may cause blindness.
Inhalation	Acute overexposure to vapour (15 ppm) such as might occur in an enclosed areas can result in nausea or vomiting. Exposure for up to a minute can produce respiratory damage including pulmonary edema and possibility death.
Skin	Exposure to vapour in low concentrations can cause reversible skin irritation. Direct contact with liquid may cause permanent skin damage.
Ingestion	Ingestion may cause severe gastrointestinal damage and may include nausea, vomiting, and abdominal pain, collapse and death.
Carcinogenicity	No component present at greater the 0.01% is listed by IARC, OSHA or NTP for carcinogenicity.
Mutagenicity	Has been shown to be positive in some <i>in vitro</i> (Test Tube) studies and negative in others.
Teratogenicity	In animal inhalation studies there were no treatment-related fatal malformations although the incidences of development variations increased with dose.
Reproductive effects	Reproductive fitness was not adversely affected in a two-generation inhalation rat study.

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7. Reactivity Data

Stability	Chloropicrin is stable. Reactivity with other chemicals is not rapid.
Incompatibility	do not use with PVC, aluminium, magnesium or their alloys. Mixing with water or water solutions causes formation of corrosive products.
Hazardous Decomposition Products	Decomposes to carbon monoxide, chlorine, hydrochloric acid, phosgene and nitrogen oxides at high temperatures.
Hazardous Polymerisation	None.

8. Spill/Leak Procedure

Spill or Leak Procedure	Evacuate area. See "Handling Precautions" for personal protective equipment. Work upwind if possible since chloropicrin will vaporize readily. Cover spill with water, soil, cotton absorbent material or plastic tarp to reduce fumes. Ventilate area if possible. Collect spill in a sealable polyethylene or steel container.
Waste Disposal Method	Consult manufacturer. Chloropicrin will biodegrade in soil and can be removed from a water solution by adding sodium bisulfite. Mix only in a well ventilated area.

9. Handling Precautions

Handling and Storage	READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL, Store and ship cylinders and tanks in upright position only. Store in a secured area. When not in use keep valves closed and secure take-off fitting cap and valve bonnet. Use only dry nitrogen gas (180 psig maximum) to pressurize cylinders and tanks. Polyethylene or Teflon tubing may be used to transfer Chloropicrin at low pressures. Chloropicrin can be stored in stainless steel or mild steel tanks.
Ventilation	Whenever possible, provide ventilation to control airborne levels below the permissible exposure limit.
Note:	Passing fumes through activated carbon effectively removes chloropicrin.

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Eye Protection

Glasses with side shields must be worn when full-face respiratory protection is not required.

Respiratory Protection

A full-face respirator or powered air-purifying respirator equipped with NIOSH approved organic vapour cartridges is required if vapours are above the permissible exposure limit.

Protective Gloves

A self contained breathing apparatus or supplied-air respirator is required in oxygen deficient areas or when concentrations exceed 5 ppm.

Protective Clothing

Nitrile or polyethylene gloves are required when there is a danger of liquid contact.

Wear loose-fitting chemical-resistant clothing
In confined areas wear a vapour-tight suit.

10. Transport

Return of Empty Containers

Do not refill containers.

Return empty cylinders to:

Leicester's NZ Ltd

6 Waitane Place, Onekawa, Napier.

Empty cylinders and tanks are classified by the DOT as: "Cyl Residue, LAST CONTAINED Chloropicrin, 6.1, UN 1580, PG 1, Poison-Inhalation Hazard, Hazard Zone B."

POISON 6 (UN1580 for 1500 lb bulk tanks) or POISON 6 UN1580 for weight over 2,205 lbs.
