

LEICESTER'S N.Z. LTD

SAFETY DATA SHEET

Product

TRI-FORM 60

Date: 22/08/2013

UN Number: 3489

Version 1

1. Identification of the substance & the company

Chemical name	Chloropicrin 60% plus 1,3 Dichloropropene 40%
Type of product and use	A broad-spectrum pesticide used as a soil fumigant
Company identification Address and telephone	Leicester's NZ Ltd 6 Waitane Place, Onekawa, Napier. 06 843 5330 or 0800 658 158
Emergency Telephone Number:	Leicester's N.Z. Ltd 0800 658 158 NATIONAL POISONS CENTRE 0800 243 622

2. Hazards identification

Product is classified as hazardous according to Schedules 1 to 6 of the *Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001* of the HSNO Act, 1996.

HSNO Classifications: 3.1C, 6.1A (I), 6.1B (O,D), 6.5A, 6.5B, 6.6B, 6.7B, 6.9A, 8.2C, 8.3A, 9.1A, 9.2B, 9.3A, 9.4B
Signal word: DANGER

Hazard Statements:

H226 Flammable liquid and vapour
H300 Fatal if swallowed
H310 Fatal in contact with skin
H314 Causes severe skin burns and eye damage
H317 May cause an allergic skin reaction
H318 Causes serious eye damage
H330 Fatal if inhaled
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
H341 Suspected of causing genetic effects
H351 Suspected of causing cancer
H370 Causes damage to organs
H400 Very toxic to aquatic life
H422 Toxic to the soil environment
H431 Very toxic to terrestrial vertebrates
H442 Toxic to terrestrial invertebrates

Prevention Statements:

P102 Keep out of reach of children
P201 Obtains special instructions before use
P202 Do not handle until all safety precautions have been read and understood
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233 Keep container tightly closed
P240 Ground/bond container and receiving equipment
P241 Use explosion-proof electrical/ventilating /lighting equipment.
P242 Use only non-sparking tools
P243 Take precautionary measures against static discharge
P260 Do not breathe gas
P262 Do not get in eyes, on skin or on clothing
P264 Wash hands thoroughly after handling
P270 Do not eat, drink or smoke when using this product
P271 Use only outdoors or in a well-ventilated area
P272 Contaminated work clothing should not be allowed out of the workplace

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P273 Avoid release to environment

P280 Wear protective gloves/protective clothing/eye protection

P284 Wear respiratory protection.

P285 In case of inadequate ventilation wear respiratory protection (full-face respirator or powered air-purifying respirator fitted with approved organic cartridges).

Response Statements:

- P101 If medical advice is needed, have product container or label at hand.
- P304 + P340 IF INHALED: Remove to fresh air and keep at rest until in a position comfortable for breathing.
P310 Immediately call a POISON CENTRE or doctor.
P341 If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTRE or doctor.
- P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
H330 Rinse mouth.
P310 Immediately call a POISON CENTRE or doctor.
- P303 + P361 + P353 IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water.
P363 Wash contaminated clothing before re-use.
P310 Immediately call a POISON CENTRE or doctor.
P333 + P313 If skin irritation or rash occurs: Get medical advice.
- P305 + P351 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact
+P338 lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTRE or doctor.
- P387 + P311 If exposed or concerned: Call a POISON CENTRE or doctor.
- P370 + P378 In case of fire: Use water spray, dry chemical, carbon dioxide or alcohol resistant foam extinguishing media.
- P391 Collect spillage

Storage Statements:

- P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P235 Keep cool
P405 Store locked up

Disposal Statements:

- P501 Dispose of product and containers in accordance with local regulations.

3. Composition/information on ingredients

Hazardous component(s)	Chloropicrin 60 % CAS No 76-06-2
	1,3-Dichloropropene 40% CAS No 542-75-6

4. First-aid measures (*)

Eye contact	Holding the eyelids apart, flush eyes promptly with copious flowing water for at least 20 minutes. Get medical attention immediately.
Skin contact	Wash skin thoroughly with mild soap and plenty of water for at least 15 minutes. Get medical attention immediately.

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Inhalation All leather items should be discarded. Other contaminated clothing must either be discarded or thoroughly ventilated and washed before re-use.

Ingestion In case of inhalation, remove person to fresh air. Keep person quiet and warm. Apply artificial respiration if necessary and get medical attention immediately.

Note to the physician If swallowed, wash mouth thoroughly with plenty of water. Get medical attention immediately.

NOTE: Never give an unconscious person anything to drink.

Note to the physician Chloropicrin is powerful lachrymator; commonly referred to as tear gas. No specific antidote.

5. Fire-fighting measures

Flash point	49°C
Flammable/Explosion limits	
- Lower (% vol)	-
- Upper (% vol)	-
Auto-ignition temperature	-
Extinguishing media	Carbon dioxide, dry chemicals, foam, water spray (fog). Evacuate area. Flammable product and vapors. Eliminate or remove ignition sources.
Fire fighting procedure	Wear self-contained breathing apparatus in positive pressure mode and appropriate protective clothing. If possible stop material flow immediately. Do not extinguish burning gas unless flow can be shut off immediately. Vapors form flammable mixtures at ordinary temperatures. Use water spray to keep cylinder cool. If there is no risk, move cylinder away from fire.
Unusual fire and explosion Hazards	Highly toxic and irritating fumes released in fire situations. Cylinder may rupture if heated by fire.

6. Accidental release measures

Personal precautions	Evacuate area and keep personnel upwind. Wear personal protective equipment including self-contained breathing apparatus in positive pressure mode. Avoid low places, ventilated closed spaces before entering and work upwind if possible. Use grounded explosion and spark proof equipment. For small spills: cover spillage with diatomaceous earth, clay, sand or other non-combustible material. Collect contaminated spillage material into a labelled polyethylene or steel container that can be sealed. For large spills (>35 litres) : isolate leaking or damaged container, contain and prevent material entering waterways, sewers, drains, low lying or confined areas. Recover material for disposal.
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7. Handling and storage

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Handling

Flammable liquid and vapour. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment Use explosion-proof electrical/ventilating /lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear personal protective equipment. Do not breathe gas. Do not get in eyes, on skin or on clothing. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area.
Move and transport containers with care. Do not use hooks, rope sling, etc. to unload. Use hand or fork trucks to firmly cradle cylinders. Do not bump or drag containers.
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.
Do not use containers or application equipment made of magnesium, aluminum, zinc or cadmium. Avoid contact with strong bases.

Storage

Store containers upright, in a secure manner (under lock and key); keep cool either outdoors under ambient conditions, or indoors in a well-ventilated area, away from seeds, foods/feed-stuffs and human and animal habitation. Do not store with other flammable or combustible liquids, or with oxidisers or combustible solid materials. Use appropriate storage signage. When not in use keep valves closed and secure take-off fitting cap and valve bonnet.

8. Exposure controls / personal protection

Exposure limits:

-WES -TWA

Chloropicrin 0.1 ppm (0.67 mg/m³)
1,3-Dichloropropene 1.0 ppm (4.5 mg/m³)

Ventilation requirement

Ventilation must be sufficient to maintain atmospheric concentration below TWA.

Personal protection equipment:

- Respiratory protection

A full-face respirator or powered air-purifying respirator fitted with approved organic vapour cartridges is required if vapours are above the permissible exposure limit. Self-contained breathing apparatus or supplied-air respirator with a full face-piece are required in oxygen deficient areas or where concentrations > 5 ppm may be present. Use Viton or barrier laminate gloves. Glasses with side shields when full face respiratory protection is not required.

- Gloves

- Eye protection

- Clothing

When using, wear loose fitting chemical resistant clothing, chemical resistant apron, chemical resistant footwear and

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-Hygiene measures

socks. In confined area wear a vapor tight suit. Do not wear jewelry, rubber protective clothing or rubber boots. When using this material, do not eat, drink or smoke. Safety shower and eye bath should be provided.

9. Physical and chemical properties

Appearance	Transparent thin colourless liquid
Odour	Pungent sweet penetrating odor
Melting point/range	Not available
Boiling point/range	Not available
Vapour pressure	Not available
Relative vapour density (air 1)	Not available
Solubility:	
- Solubility in water	Not available
pH	2.56 (as 1% v/v in water)
Specific gravity	1.423 (at 20 °C)

10. Stability and reactivity

Stability	Stable in sealed containers and under normal conditions.
Materials to avoid	Strong oxidizers, iron, zinc, aluminum and magnesium metals and their alloys, strong bases.
Conditions to avoid	Ignition and heat sources, incompatible materials.
Hazardous decomposition	
- products	Hydrogen chloride, nitrogen oxides and other toxic products.
Hazardous polymerization	Will not occur.

11. Toxicological information

DANGER: May be fatal in inhaled or ingested or in contact with skin. Severe damage (corrosive) if liquid contact with eyes or skin. Respiratory and contact sensitizer. Airborne exposure may cause immediate tearing and irritation of eyes, respiratory tract and other contaminated skin.

Toxicity:

Chloropicrin	
- Mouse inhalation LC50	0.066 mg/m ³ /4 hour
- Rat oral LD50	37.5 mg/kg
- Rat dermal LD50	100 mg/kg

1,3-Dichloropropene	
- Rat inhalation LC50	2.7– 3.07 mg/m ³ /4 hour
- Rat oral LD50	57 mg/kg
- Rat dermal LD50	800 - 2000 mg/kg

Effects of overexposure:

- Ocular

Severe irritant with corrosive effects. Exposure to low concentrations can cause reversible eye irritation. Contact with liquid or high concentrations of gas with the eyes may cause severe but usually reversible injury involving temporary blindness. Vapors may cause lachrymation (tears) and irritation.

- Dermal

Liquid splashed on skin may cause skin burns. Can cause redness and may cause an allergic skin reaction. May be absorbed through the skin in sufficient amount to cause systemic toxicity.

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- Inhalation

Symptoms of poisoning include sore throat, laboured breathing, dizziness, nausea and vomiting. If aspirated into lungs, may be rapidly absorbed and result in injury to other body organs and systems.

- Ingestion

May cause severe gastrointestinal damage and symptoms may include nausea, vomiting, abdominal pain, collapse and death. May result in burns and permanent damage to mouth, throat, esophagus and stomach.

Chronic toxicity

Chronic exposure to low concentrations will cause damage to organs and systems. Classified as may cause genetic effects and may cause cancer. Not classified for reproductive and developmental toxicity.

12. Ecological information

Information on ecological effects

Highly ecotoxic to aquatic life and terrestrial vertebrates and toxic in soil environment and terrestrial invertebrates.

1,3-Dichloropropene is mobile and groundwater and not rapidly degradable.

Ecotoxicity

Chloropicrin

- 96 Hour-LC50 – Fish
- 48 Hour-EC50 - Crustacea
- 72 Hour-EC50
- Freshwater algae

0.0165 mg/l (Rainbow trout)
0.063 mg/l (Daphnia pulex)
0.00016 mg/l (Selenastrum sp)

1,3-Dichloropropene

- 96 Hour-LC50 – Fish
- 48 Hour-EC50 - Crustacea
- 72 Hour-EC50
- Algae
- LD50 – Honey bee

0.239 mg/l (Fathead minnow)
6.2 mg/l (Daphnia magna)
1.04 mg/l (Skeletonema costatum)
6.6 µg/bee (Apis mellifera)

13. Disposal considerations (*)

Waste disposal

The recommended method is incineration. If a suitable designated combustion chamber is not available, return MARKED containers to supplier.

Observe all National and local environmental regulations when disposing of this material. Contact authorities to ensure proper compliance.

Disposal of packaging (*)

Return marked empty containers to supplier.

14. Transportation information (*)

UN No.
NZ5433:2012

3489
Proper shipping name: TOXIC BY INHALATION LIQUID,
FLAMMABLE, CORROSIVE, N.O.S (CHLOROPICRIN,

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1,3-DICHLOROPROPENE)
Class: 6.1
Sub-class 8
Hazchem code: 2XE

15. Regulatory information (*)

New Zealand

Approved substance under the HSNO Act 1996.
HSR100563 : TRI-FORM 60
Hazardous classifications: 3.1C, 6.1A (I), 6.1B (O,D), 6.5A,
6.5B, 6.6B, 6.7B, 6.9A, 8.2C, 8.3A, 9.1A, 9.2B, 9.3A, 9.4B.

Refer to www.epa.govt.nz for information on Controls for this substance.
APPROVED HANDLER and TRACKING Controls apply.
Users require Controlled Substance License (CSL).

Approved under the ACVM Act 1997: P008550
Refer to www.foodsafety.govt.nz for Conditions of Registration.

16. Other information (*)

Safety Data Sheet issued: 22 August 2013
Reason for issue: New product name/use
Replaces: Not applicable
Next review: Before August 2018.

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