

Material Safety Data Sheet

SECTION 1: IDENTIFICATION OF THE CHEMICAL PRODUCT

Product Name: TRIPICLO HERBICIDE

Product Type: Group I Herbicide/ Triclopyr is an aryloxyalkanoic acid and Picloram is a pyridinecarboxylic acid derivative.

Product Use: For the control of a range of environmental and noxious woody and herbaceous weeds as per the Directions for Use.

SECTION 2 : HAZARD IDENTIFICATION

Statement of Hazardous Nature:

This product is classified as: Xi, Irritating. N, Dangerous to the environment. Hazardous according to the criteria of NOHSC Australia.

Not a Dangerous Good according to the Australian Dangerous Goods (ADG) Code. However, this is a C1 Combustible Liquid and for storage meets the definition of Dangerous Goods. .

Risk Phrases: R43, R51, R36/38. May cause sensitisation by skin contact. Toxic to aquatic organisms. Irritating to eyes and skin.

Safety Phrases: S22, S28, S36, S60, S61, S24/25. Do not breathe dust. After contact with skin, wash immediately with plenty of soap and water. Wear suitable protective clothing. This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Refer to special instructions/Safety Data Sheets. Avoid contact with skin and eyes.

ADG Classification: None allocated. Not a Dangerous Good under the ADG Code.

SUSDP Classification: S6

UN Number: None allocated

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients	CAS	Proportion (%)
Triclopyr (as butoxyethanol ester)	64700-56-7	300g/L
Picloram (as hexyloxypropylamine salt)	1918-02-1	100g/L
Ethyl di icinol	111-90-0	410g/L
Other non hazardous ingredients	secret	to 100%

SECTION 4: FIRST AID MEASURES

Call The Poisons Information Centre if you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this MSDS with you when you call.

Inhalation: No first aid measures normally required. However, if inhalation has occurred, and irritation has developed, remove to fresh air and observe until recovered. If irritation becomes painful or persists more than about 30 minutes, seek medical advice.

Skin Contact: Wash gently and thoroughly with water (use non-abrasive soap if necessary) for 5 minutes or until chemical is removed.

Eye Contact: Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 20 minutes or until the product is removed, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical attention immediately. Take special care if exposed person is wearing contact lenses.

Ingestion: If product is swallowed or gets in mouth, DO NOT induce vomiting; wash mouth with water and give some water to drink. If symptoms develop, or if in doubt contact a Poisons Information Centre or a doctor.

Advice to Doctor: Treat symptomatically.

SECTION 5: FIRE FIGHTING MEASURES

Fire and Explosion Hazards: This product is classified as a C1 combustible product. There is no risk of an explosion from this product under normal circumstances if it is involved in a fire. Violent steam generation or eruption may occur upon application of direct water stream on hot liquids.

Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade.

Extinguishing Media: Suitable extinguishing media are carbon dioxide, dry chemical, foam, water fog.

Flash point: 82°C (Pensky Martin closed cup) ASTM D 93.

Upper Flammability Limit: No data.

Lower Flammability Limit: No data.

Autoignition temperature: No data.

Flammability Class: C1.

SECTION 6: ACCIDENTAL RELEASE MEASURES

In the event of a major spill, prevent spillage from entering drains or water courses. Wear full protective clothing including eye/face protection. All skin areas should be covered. See below under Personal Protection regarding Australian Standards relating to personal protective equipment. Suitable materials for protective clothing include rubber, PVC. Eye/face protective equipment should comprise as a minimum, protective goggles. If there is a significant chance that vapours or mists are likely to build up in the cleanup area, we recommend that you use a respirator. Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned below (section 8). Otherwise, not normally necessary.

Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Recycle containers wherever possible after careful cleaning. Refer to product label for specific

instructions. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Full details regarding disposal of used containers, spillage and unused material may be found on the label. If there is any conflict between this MSDS and the label, instructions on the label prevail. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

SECTION 7: HANDLING AND STORAGE

Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this MSDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

Storage: Note that this product is combustible and therefore, for Storage, meets the definition of Dangerous Goods in some states. If you store large quantities (tonnes) of such products, we suggest that you consult your state's Dangerous Goods authority in order to clarify your obligations regarding their storage.

Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. Some liquid preparations settle or separate on standing and may require stirring before use. Check packaging - there may be further storage instructions on the label.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

Exposure limits for Picloram have been set at 10mg/m³ (TWA)

Personal Protective Equipment:

Australian Standards regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Industrial Clothing: **AS2919**, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**

When opening the container, preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and face shield or goggles.

Eye Protection: Protective glasses or goggles should be worn when this product is being used. Failure to protect your eyes may cause them harm. Emergency eye wash facilities are also recommended in an area close to where this product is being used.

Skin Protection: If you believe you may have a sensitisation to this product or any of its declared ingredients, you should prevent skin contact by wearing impervious gloves, clothes and, preferably, apron. Make sure that all skin areas are covered. See below for suitable material types.

Protective Material Types: We suggest that protective clothing be made from the following materials: PVC, rubber.

Respirator: Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above. Safety deluge showers should, if practical, be provided near to where this product is being used.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical Description & colour: Clear brown liquid

Odour: Characteristic odour

Boiling Point: No data, but solvent may begin boiling at 200°C at 100kPa

Freezing/Melting Point: No specific data. Liquid at normal temperatures

Volatiles: No specific data. Expected to be low at 100°C

Vapour Pressure: Negligible at normal ambient temperatures

Vapour Density: No data

Specific Gravity: 1.12 at 20°C

Water Solubility: Emulsifiable

pH: No data

Odour Threshold: No data

Evaporation Rate: No data

Autoignition temp: No data

Partition coefficient (octanol/water): No data

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable under normal conditions.

Reactivity: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

Conditions to Avoid: Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

Incompatibilities: strong acids, strong bases, strong oxidising agents.

Fire Decomposition: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas in reducing atmospheres. Hydrogen chloride gas, other compounds of chlorine. Water. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicity: An information profile for Triclopyr is available at <http://extoxnet.orst.edu/pips/ghindex.html>

Chronic toxicity: Rats fed diets containing between 3 and 30 mg/kg/day of Triclopyr experienced no ill effects. Male rats fed much higher doses (100 mg/kg/day) had decreased liver and body weight and increased kidney weight. Male mice also showed reduced liver weight but at 60 mg/kg/day. Monkeys fed smaller doses of Triclopyr (20 mg/kg/day) showed no adverse effects.

Reproductive effects: Triclopyr fed to rabbits on days 6 to 18 of gestation at doses of 25, 50, and 100 mg/kg/day produced no effects on maternal body weight, litter size, or foetal body weight. Triclopyr does not appear to cause reproductive toxicity.

Teratogenic effects: Pregnant rats given moderate to high doses of 50, 100, and 200 mg/kg/day on days 6 to 15 of gestation had offspring with mild foetotoxicity, but no birth defects. These data suggest that Triclopyr is not teratogenic.

Mutagenic effects: Triclopyr is nonmutagenic in bacterial and cytogenetic assay systems. Based on these data, Triclopyr is unlikely to be mutagenic.

Carcinogenic effects: Rats and mice fed oral doses of Triclopyr at 3 to 30 mg/kg/day for 2 years showed no carcinogenic response. Based on these data, Triclopyr is unlikely to be carcinogenic.

Organ toxicity: Organs affected by exposure to Triclopyr include the kidneys and liver.

Product name: TRIPICLO Herbicide

Issued: June 2011; Revision June 2016

Poisons Information Centre: 13 1126 from anywhere in Australia

Fate in humans and animals: Data from animal studies indicate that Triclopyr is rapidly eliminated via the urine as the unchanged parent compound. At higher oral doses, some Triclopyr may be eliminated through the faeces as the absorption capacity of the intestine is exceeded. Reported half-lives for elimination of Triclopyr from mammals are 14 hours (dog) and <24 hours (monkeys).

Ingredient Risk

Triclopyr (as Butoxyethanol Ester)

Phrases

Conc>=25%: Xn; R22.

SECTION 12: ECOLOGICAL INFORMATION

This product is toxic to aquatic organisms. This product is biodegradable. It will not accumulate in the soil or water or cause long term problems.

Effects on birds: Triclopyr is slightly to practically nontoxic to birds. The LD50 of the parent compound in the mallard duck is 1698 mg/kg, while the formulated compounds are of lower toxicity. The LC50 in bobwhite quail and Japanese quail fed Triclopyr for 8 days are 2935 ppm and 3278 ppm, respectively.

Effects on aquatic organisms: The parent compound and amine salt are practically nontoxic to fish. The compound is practically nontoxic to the aquatic invertebrate *Daphnia magna*, a water flea, with a reported LC50 for the amine salt of 1170 mg/L. The ester formulation has reported 96-hour LC50 values of 0.74 mg/L and 0.87 mg/L in the rainbow trout and bluegill sunfish, respectively. The compound has little if any potential to accumulate in aquatic organisms.

Effects on other organisms: The compound is nontoxic to bees.

Environmental Fate:

Breakdown in soil and groundwater: In natural soil and in aquatic environments, the ester and amine salt formulations rapidly convert to the acid, which in turn is neutralised to a relatively nontoxic salt. It is effectively degraded by soil microorganisms and has a moderate persistence in soil environments.

Breakdown in water: Triclopyr is not readily hydrolysed at pH 5 to 9. Hydrolysis of the ester and the amine salt occurs rapidly and results in formation of Triclopyr. Reported half-lives in water are 2.8 to 14.1 hours, depending on season and depth of water.

Breakdown in vegetation: Triclopyr is readily translocated throughout a plant after being taken up by either roots or the foliage. The estimated half-life in above ground drying foliage as in a forest overstory is 2 to 3 months.

SECTION 13: DISPOSAL CONSIDERATIONS

Instructions for the disposal of this product and its containers are listed on the product label.

For collection of unwanted rural chemicals, contact ChemClear® 1800 008 182 www.chemclear.com.au and for help with the disposal of empty drums, contact DrumMuster® www.drummuster.com.au for local and State contacts.

SECTION 14: TRANSPORT INFORMATION

ADG Code: This product is not classified as a Dangerous Good. No special transport conditions are necessary unless required by other regulations.

Hazchem Code: None allocated.

Special Provisions: None allocated.

Dangerous Goods Class: None allocated.

Packaging Group: None allocated.

Packaging Method: None allocated.

SECTION 15: REGULATORY INFORMATION

Product name: TRIPICLO Herbicide

Issued: June 2011; Revision June 2016

Poisons Information Centre: 13 1126 from anywhere in Australia

SUSDP: Schedule 6; POISON, KEEP OUT OF REACH OF CHILDREN, READ SAFETY DIRECTIONS BEFORE OPENING OR USING.

AICS (Australia): All of the significant ingredients in this formulation are listed on the Australia Inventory of Chemical Substances.

APVMA Registration Number: 64736

SECTION 16: OTHER INFORMATION

This MSDS contains only safety-related information sourced from the public domain and analytical results on this product:

Acronyms:

ADG Code Australian Code for the Transport of Dangerous Goods by Road and Rail, 7th Edition

AICS Australian Inventory of Chemical Substances

CAS number Chemical Abstracts Service Registry Number

Hazchem Number Emergency action code of numbers and letters that provide information for fire fighters

IARC International Agency for Research on Cancer

ASCC Office of the Australian Safety and Compensation Council

NTP National Toxicology Program (USA)

R-Phrase Risk Phrase

SUSDP Standard for the Uniform Scheduling of Drugs & Poisons

UN Number United Nations Number

Police and Fire Brigade: Dial 000 **Poisons Information Centre (13 1126)**

Emergency contact: 04 0214 9346 (24 hours)

Information contained in this Material Safety Data Sheet is provided in good faith and is believed to be correct at the date hereof. However, its expected that individuals receiving the information will exercise independent judgement in determining its appropriateness for a particular purpose. Hextar Pty Ltd makes no representation whatsoever as to the accuracy or comprehensiveness of the information and to the full extent allowed by law excludes all liability whatsoever, whether with respect to negligence or otherwise, and no responsibility as permitted by law for any loss or damage arising from or connection with the supply or use of the information in this Material Safety Data Sheet.