# SAFETY DATA SHEET

## 1. Identification

**Product identifier** **Strike 35 Drip Soil Fumigant**

**Other means of identification**

**SDS number** 133-AUS-TCA

**Recommended use** Soil fumigant

NOTE TO PESTICIDE HANDLERS: If the pesticide product end-use labeling contains hazard information, specific instructions, or requirements that conflict with this Safety Data Sheet (SDS), follow the hazard information, instructions, or requirements on the labeling.

**Restrictions on use** Use of this product requires supervision by a qualified pesticide applicator.

**Details of manufacturer or importer** TriCal Australia Pty Ltd
**Address** 4 Gidgie Court, Edinburgh, SA 5111, Australia
**Telephone** 08 8347 3838

**E-mail** info@trical.com.au

**Emergency phone number**

| | | |
|---|---|---|
| CHEMTREC (Australia) | 02 9037 2994 | (24/7) |
| POISONS INFORMATION CENTRE | 13 11 26 | |

## 2. Hazard(s) identification

| | | |
|---|---|---|
| **Physical hazards** | Flammable liquids | Category 3 |
| **Health hazards** | Acute toxicity, oral | Category 3 |
| | Acute toxicity, dermal | Category 2 |
| | Acute toxicity, inhalation | Category 1 |
| | Skin corrosion/irritation | Category 1C |
| | Eye damage/eye irritation | Category 1 |
| | Sensitization, skin | Category 1 |
| | Carcinogenicity | Category 2 |
| | Specific target organ toxicity, single exposure | Category 1 (respiratory system damage) |
| | Specific target organ toxicity, single exposure | Category 3 (respiratory tract irritation) |
| | Specific target organ toxicity, repeated exposure | Category 1 (respiratory tract/lungs) |
| **Environmental hazards** | Hazardous to the aquatic environment, acute hazard | Category 1 |
| | Hazardous to the aquatic environment, long-term hazard | Category 1 |

**Label elements**

Flame Skull Corrosion Health Environment

**Signal word** **DANGER**

**Hazard statements** Flammable liquid and vapour. Toxic if swallowed. Fatal in contact with skin. Fatal if inhaled. May cause an allergic skin reaction. Causes serious eye damage. Causes

severe skin burns and eye damage. May cause respiratory irritation. Suspected of causing cancer. Causes damage to organs (respiratory system). Causes damage to organs (lung, liver, kidney, respiratory system) through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.

**Precautionary statements**

**Prevention**

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. Wear protective gloves/protective clothing/eye protection/face protection. In case of inadequate ventilation wear respiratory protection. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Do not get in eyes, on skin, or on clothing. Do not breathe dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. 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. Avoid release to the environment.

**Response**

Specific treatment is urgent. If swallowed: Rinse mouth. Do not induce vomiting. If swallowed: Immediately call a POISON CENTRE or doctor. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTRE or doctor. If on skin: Wash with plenty of soap and water. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. Wash contaminated clothing before reuse. In case of fire: Use appropriate media to extinguish.

**Storage**

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.

**Disposal**

Dispose of contents/container in accordance with local, regional, national, and international regulations.

**Hazard(s) not otherwise classified (HNOC)**

Lachrymator - Vapour extremely irritating to the eyes and respiratory tract.

## 3. Composition and information on ingredients

**Mixtures**

| Chemical name | CAS number | Concentration by weight % |
|---|---|---|
| 1,3-Dichloropropene (1,3-D) | 542-75-6 | 61.4 * |
| Chloropicrin (Trichloronitromethane) | 76-06-2 | 33.6 * |
| Emulsifier (proprietary) ** | | 5.0 |

**Composition comments**

* Product label will reflect nominal active ingredient percentages.

** Emulsifier does not contribute to the classification of this product.

Emulsifier identity withheld as a trade secret.

## 4. First-aid measures

**Description of necessary first aid measures**

**Inhalation**

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Provide oxygen, if available, or artificial respiration, if needed. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician or POISON CENTRE for further treatment advice.

**Skin contact**

Remove contaminated clothing immediately and wash skin for 15-20 minutes with water, and if available, use soap. Call a physician or POISON CENTRE for treatment advice. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse. Refer to Section 4. General Information for more information on contaminated clothing.

**Eye contact**

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or POISON CENTRE immediately.

| | |
|---|---|
| **Ingestion** | Call a physician or POISON CENTRE immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. |
| **Symptoms caused by exposure** | Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Causes respiratory distress and irritation. Early symptoms may include throat and nose irritation, nausea or vomiting. May cause an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects. |
| **Medical attention and Special treatment** | Material if aspirated into the lungs may cause rapid absorption through the lungs which may result in systemic effects. If the product is ingested, probable mucosal damage may contraindicate the use of gastric lavage. Treat the affected person appropriately. In case of ingestion, the decision of whether or not to induce vomiting should be made by the attending physician. Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.<br><br>Note to Physician: If lavage is performed, endotracheal and/or esophageal control is suggested. Danger from lung toxicity must be weighed against toxicity when considering emptying the stomach. |
| **General information** | Take off immediately all contaminated clothing. Aerate contaminated clothing in a secure area downwind and away from people. IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse. Discard any shoes or clothing items that cannot be decontaminated, after aerating. |

## 5. Fire-fighting measures

| | |
|---|---|
| **Suitable extinguishing media** | Water fog. Foam. Dry chemical powder. Carbon dioxide ($CO_2$). |
| **Unsuitable extinguishing media** | Do not use water jet as an extinguisher, as this will spread the fire. |
| **Specific hazards arising from the chemical** | Vapours may form explosive mixtures with air. Vapours may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed. Combustion products include: Carbon monoxide. Carbon dioxide. Chlorine. Hydrogen chloride. Phosgene. Nitrosyl chloride. Nitrogen oxides. |
| **Special protective equipment and precautions for firefighters** | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |
| **Hazchem Code** | 2WE |
| **Firefighting equipment and instructions** | In case of fire and/or explosion do not breathe smoke, gas or vapours. Move containers from fire area if you can do so without risk. |
| **Specific methods** | Use standard firefighting procedures and consider the hazards of other involved materials. |
| **General fire hazards** | Flammable liquid and vapour. |

## 6. Accidental release measures

| | |
|---|---|
| **Personal precautions, protective equipment and emergency procedures** | Immediately evacuate personnel to safe areas. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe vapour. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Move leaking or damaged containers outdoors or to an isolated location, observing strict safety precautions. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.<br><br>Small spills: Consider initial isolation for at least 60 metres (200 feet).<br><br>Large spills: Consider initial isolation for at least 200 metres (600 ft.). |
| **Methods and materials for containment and cleaning up** | Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. Work upwind, if possible. |

Small spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Large spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Use water spray to reduce vapours or divert vapour cloud drift. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

**Environmental precautions**

Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

**Precautions for safe handling**

Obtain special instructions before use. Do not subject containers to rough handling or to abnormal mechanical shock. Use a suitable hand truck or forklift to move heavier cylinders. Do not heat container by any means to increase the discharge rate of product from the container.

Do not handle until all safety precautions have been read and understood. Vapours may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. Do not breathe vapour. Do not get this material in contact with eyes. Do not get this material in contact with skin. Do not taste or swallow. Avoid prolonged exposure. Do not get this material on clothing. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Avoid release to the environment. Do not empty into drains.

**Conditions for safe storage, including any incompatibilities**

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Store at temperatures not exceeding 55°C (131°F).

## 8. Exposure controls and personal protection

**Occupational exposure limits**

| Components | Type | Value |
|---|---|---|
| **Workplace Exposure Standards for Airborne Contaminants (Australia Work Health and Safety Act)** | | |
| Chloropicrin (CAS 76-06-2) | TWA | 0.1 ppm (0.67 mg/m3) |
| **US. ACGIH Threshold Limit Values** | | |
| 1,3-Dichloropropene (CAS 542-75-6) | TLV-TWA | |
| Chloropicrin (CAS 76-06-2) | TLV-TWA | 0.1 ppm (0.7 mg/m3) |
| **US. NIOSH: Pocket Guide to Chemical Hazards** | | |
| 1,3-Dichloropropene (CAS 542-75-6) | REL-TWA | 1.0 ppm (5.0 mg/m3) |
| Chloropicrin (CAS 76-06-2) | REL-TWA | 0.1 ppm (0.7 mg/m3) |

**Biological monitoring**

No biological exposure limits noted for the ingredient(s).

**Control banding**

Not assigned.

**Exposure guidelines**

**US. ACGIH Threshold Limit Values: Skin designation***

1,3-Dichloropropene (CAS 542-75-6) — Can be absorbed through the skin.

**US. NIOSH: Pocket Guide to Chemical Hazards**

1,3-Dichloropropene (CAS 542-75-6) — Can be absorbed through the skin.

* A skin designation refers to the potential for dermal absorption of the material including mucous membranes and the eyes either by contact with vapours or by direct skin contact. It is intended to alert the reader that inhalation may not be the only route of exposure and that measures to minimise dermal exposures should be considered.

**Engineering controls**

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Water flushing facilities must be available when handling this product.

**Individual protection measures, such as personal protective equipment**

**Eye and face protection**

Wear safety glasses with side shields and a face shield. Wear goggles when using a half-mask respirator. Wear a full-face respirator, if needed.

**Skin protection**

**Hand protection**

Wear appropriate chemical resistant gloves. For help in selecting suitable equipment, consult AS 2161: Occupational protective gloves, Protection against thermal risks (heat and fire).

Incidental contact (< 10 minutes): Nitrile, butyl rubber or neoprene gloves are recommended.

More than incidental contact: Viton or Silver Shield ® gloves are recommended.

**Other**

Avoid contact with the skin. When performing tasks with potential for contact with liquid, wear appropriate chemical resistant clothing to prevent skin contact. To avoid prolonged or repeated contact where spills and splashes are likely, wear appropriate chemical-resistant face shield, boots, apron, whole body suits or other protective clothing. The protection suit must be able to provide reliable protection against a broad range of industrial chemicals. Examples include: Tychem and Saranex.

**Respiratory protection**

For non-handlers and non-applicators:

- If working in an environment where the eyes are stinging and watery due to exposure to this product, wear an approved full-face-respirator with an organic vapour cartridge.

For all pesticide handlers (including applicators):

- Must wear a half-face air-purifying respirator (in conjunction with goggles) equipped with an organic-vapour cartridge and a particulate pre-filter.
- If sensory irritation (tearing, burning of the eyes or nose) is experienced and handlers remain in the application block or buffer zone, handlers must wear at a minimum either: an approved full-face air-purifying respirator equipped with an organic vapour cartridge and a particulate pre-filter, or a gas mask with a Type A or AX canister approved for organic vapour.

Emergency or planned entry into unknown concentrations or IDLH conditions:

- Any self-contained breathing apparatus that has a full face piece and is operated in a pressure-demand or other positive-pressure mode.

Escape:

- Full-face air-purifying respirator equipped with Type A or AX organic vapour cartridge.
- Air-purifying respirator with canisters that include the escape gas mask (canister) respirator, the gas mask (canister) respirator, and the filter self-rescuer.
- Any self-contained breathing apparatus with hood or full-face mask.

Respirators certified “escape only” can only be used for escape purposes and CANNOT be used for responding to emergencies.

Select approved respirators in accordance with AS/NZS 1715 Standard - Selection, use and maintenance of respiratory protective equipment.

**Thermal hazards**

Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations**

NOTE: Handlers and applicators must follow the end-use pesticide label instructions for each of the task situations that require personal protective equipment.

When using, do not eat, drink or smoke. Do not get this material on clothing. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

## 9. Physical and chemical properties

| | |
|---|---|
| **Appearance** | Colourless to brown liquid. |
| **Physical state** | Liquid. |
| **Form** | Liquid. |
| **Colour** | Pale clear yellow. Brown if in prolonged contact with metal packaging. |
| **Odour** | Pungent. |
| **Odour threshold** | 700 ppb in 2-5 seconds (Chloropicrin) |
| **pH** | 5.9 *CIPAC MT 75.2* 1% aqueous solution |
| **Melting point/freezing point** | -120 °F (-85 °C) |
| **Initial boiling point and boiling range** | 200 °F (93 °C) |
| **Flash point** | 102.2 °F (39.0 °C) Pensky-Martens Closed Cup |
| **Auto-ignition temperature** | 308 °C (586 °F) *92/69/EEC A15* |
| **Evaporation rate** | Fast. |
| **Flammability (solid, gas)** | Not available. |
| **Upper/lower flammability or explosive limits** | |
| **Flammability limit – lower %** | 5.5% (V) (1,3-Dichloropropene) |
| **Flammability limit – upper %** | 14.5% (V) (1,3-Dichloropropene) |
| **Explosive limit – lower %** | Not available. |
| **Explosive limit – upper %** | Not available. |
| **Vapour pressure** | Approximately 33 mmHg @ 20 °C (moderately volatile). |
| **Vapour density** | Not available. |
| **Relative density** | 1.32 @ 23 °C (73.4 °F) |
| **Specific gravity/density** | 1.32 @ 23 °C (73.4 °F) ($H_2O$ = 1) |
| **Solubility(ies)** | |
| **Solubility (water)** | 0.2g/100g (Emulsifiable) |
| **Partition coefficient (n-octanol/water)** | Not available. |
| **Decomposition temperature** | Not available. |
| **Kinematic viscosity** | 0.748 mm2/s @ 40 °C 0.938 mm2/s @ 20 °C |
| **Explosive properties** | No *EEC A14* |
| **Oxidising properties** | No |
| **Particle characteristics** | Not relevant because this product is a liquid. |

## 10. Stability and reactivity

| | |
|---|---|
| **Reactivity** | The product is stable and non-reactive under normal conditions of use, storage and transport. |
| **Chemical stability** | Material is stable under normal conditions. |
| **Possibility of hazardous reactions** | No dangerous reaction known under conditions of normal use. Chemical reaction may occur if mixed with or allowed to contact oxidizing agent. |
| **Conditions to avoid** | Heat may cause the containers to rupture or burst. Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials. |
| **Incompatible materials** | Strong oxidizing agents. Copper. Aluminum. Zinc. Cadmium. Magnesium. Acids. Bases. Amines. |
| **Hazardous decomposition products** | During combustion: Carbon monoxide. Carbon dioxide. Chlorine. Hydrogen chloride. Phosgene. Nitrosyl chloride. Nitrogen oxides. |

## 11. Toxicological information

**Acute toxicity** Fatal if inhaled. Fatal in contact with skin. Toxic if swallowed.

| 1,3-Dichloropropene (CAS 542-75-6) | | | |
|---|---|---|---|
| **Components** | **Route of Entry** | **Animal** | **Test Results** |
| Acute | Dermal, LD50 | Rabbit | > 333 mg/kg |
| | Inhalation, LC50 | Rat | > 855 ppm, 4 hours |
| | Oral, LD50 | Rat | > 110 mg/kg |
| Chloropicrin (CAS 76-06-2) | | | |
| Acute | Dermal, LD50 | Rabbit | 50 mg/kg, (converted acute toxicity point estimate) |
| | Inhalation, LC50 | Rat | 18.9 ppm, 4 hours, (126.6 mg/m3) |
| | Oral, LD50 | Rat | 37.5 mg/kg |
| Dodecylbenzenesulfonic acid, calcium salt (CAS 26264-06-2) | | | |
| Acute | Oral, LD50 | Rat | 4000 mg/kg |
| Solvent naphtha (petroleum), light aromatic (CAS 64742-95-6) | | | |
| Acute | Dermal, LD50 | Rabbit | 1900 mg/kg, 24 hours |
| | Inhalation, LC50 | Rat | 4.96 mg/l, 4 hours |
| | Oral, LD50 | Rat | 4800 mg/kg |

**Skin corrosion/irritation** Causes severe skin burns.

**Serious eye damage/eye irritation** Causes serious eye damage.

**Respiratory or skin sensitization**

**Respiratory sensitization** Not classified.

**Skin sensitization** May cause an allergic skin reaction.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** Suspected of causing cancer (1,3-Dichloropropene).

**IARC Monographs. Overall Evaluation of Carcinogenicity**

1,3-Dichloropropene (CAS 542-75-6) 2B Possibly carcinogenic to humans.

**NTP Report on Carcinogens**

1,3-Dichloropropene (CAS 542-75-6) Reasonably Anticipated to be a Human Carcinogen.

**Work Health and Safety Regulations (Schedule 10) - Australia**

Not listed.

**Reproductive toxicity** Not classified.

**Specific target organ toxicity – single exposure** Causes damage to organs (Respiratory tract irritation).

**Specific target organ toxicity – repeated exposure** Causes damage to organs (lung, liver, kidney, respiratory system) through prolonged or repeated exposure.

**Aspiration hazard** Not classified.

**Chronic effects** Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects. Causes damage to organs through prolonged or repeated exposure.

**Information on possible routes of exposure**

**Inhalation** Fatal if inhaled. May cause damage to organs by inhalation.

**Skin contact** Fatal in contact with skin. Causes severe skin burns. May cause an allergic skin reaction.

**Eye contact** Causes serious eye damage. Lachrymation (discharge of tears).

**Ingestion** Toxic if swallowed. Causes digestive tract burns.

**Early onset symptoms related to exposure** Early symptoms of low exposure are stinging/tearing of the eyes and irritation of the throat. Nausea or vomiting may occur.

| | |
|---|---|
| **Symptoms related to the physical, chemical and toxicological characteristics** | Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause an allergic skin reaction. Dermatitis. Rash. |
| **Delayed health effects from exposure** | Persons exposed to very high levels of Chloropicrin have reported to have experienced nausea, vomiting, and diarrhea lasting for weeks. |

**Exposure levels and health effects (for Chloropicrin)**

| | |
|---|---|
| > 2000 ppb (10 minutes) | Human response - life-threatening effects including pulmonary edema can occur. |
| > 580 ppb (8 hours) | Human response - life-threatening effects including pulmonary edema can occur. |
| > 300 ppb | Human response - respiratory symptoms may increase in severity and include difficulty in breathing. |
| > 150 ppb | Human response - headache, nausea, and vomiting may occur. These symptoms are temporary and reversible following termination of exposure. |
| 73 - 150 ppb | Human response - mild irritant to eyes and throat. |
| 73 ppb | Human sensory irritation threshold (eye irritation). |

| | |
|---|---|
| **Interactive effects** | No data available. |
| **Other information** | None. |

## 12. Ecological information

| | |
|---|---|
| **Ecotoxicity** | Very toxic to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected. |

For 1,3-Dichloropropene (CAS 542-75-6)

| **Components** | | **Species** | **Test Results** |
|---|---|---|---|
| *Aquatic, acute* | | | |
| Crustacea | EC50 | Oyster (Crassostrea cucullata) | 0.67 mg/l, 96 hours Shell (growth inhibition) |
| Fish | LC50 | Rainbow trout (Oncorhynchus mykiss) | 2.78 - 4.63 mg/l, 96 hours |
| | LC50 | Sheepshead minnow (Cyprinodon variegatus) | 0.91 mg/l, 96 hours |
| *Aquatic, chronic* | | | |
| Crustacea | LOEC | Daphnia | 0.109 mg/l, 21 days |
| | NOEC | Daphnia | 0.073 mg/l, 21 days |
| Fish | LOEC | Fish | 0.204 mg/l, 33 days |
| | NOEC | Fish | 0.117 mg/l, 33 days |

For Chloropicrin (CAS 76-06-2)

| | | | |
|---|---|---|---|
| *Aquatic, acute* | | | |
| Crustacea | EC50 | Oyster (Crassostrea cucullata) | 6.4 µg/l, 96 hours |
| Fish | EC50 | Bluegill (Lepomis macrochirus) | 50 µg/l, 96 hours |
| | EC50 | Fish | 11 µg/l, 96 hours |
| | EC50 | Sheepshead minnow (Cyprinodon variegatus) | 100 µg/l, 96 hours |
| *Aquatic, chronic* | | | |
| Other | NOEC | Lemna minor | 11 µg/l, 7 days |

For Solvent naphtha (petroleum), light aromatic (CAS 64742-95-6)

| | | | |
|---|---|---|---|
| *Aquatic, acute* | | | |
| Crustacea | EL50 | Daphnia | 4.5 mg/l, 48 hours |
| Fish | LL50 | Oncorhynchus mykiss | 10 mg/l, 96 hours |

**Persistence and degradability**

Based on information for a similar material:

- Degradation is expected in the atmospheric environment within minutes to weeks.
- Degradation is expected in the soil environment within days to weeks

Based on information for Chloropicrin:

- Chloropicrin degrades to carbon dioxide in soil with a half-life between 8 hours and 4.5 days.
- In water, Chloropicrin degrades to carbon dioxide, bicarbonate, chloride, nitrate and nitrite within 32 hours when exposed to light.
- Half-life in air when exposed to simulated sunlight was 20 days with the end products being phosgene, nitric oxide, chlorine, nitrogen dioxide and dinitrogen tetroxide.

**Bioaccumulative potential** No data available.

**Partition coefficient n-octanol / water (log Kow)**

| | |
|---|---|
| 1,3-Dichloropropene (CAS 542-75-6) | 1.82 |
| Chloropicrin (CAS 76-06-2) | 2.38 |

**Partition coefficient soil organic carbon/water**

| | |
|---|---|
| 1,3-Dichloropropene (CAS 542-75-6) | 23 – 80 measured |
| Chloropicrin (CAS 76-06-2) | 36 – 62 estimated |
| Bioaccumulation Potential (BCF) | Low for 1,3-Dichloropropene (BCF <100 or Log Pow <3) |

**Mobility in soil** Potential for mobility in soil is very high (Koc between 0 and 50) for product.

**Other adverse effects** This product is toxic to mammals, birds, fish, and aquatic invertebrates.

**Distribution in environment:** **Mackay Level 1 Fugacity Model:**

| Air | Water | Biota | Soil | Sediment |
|---|---|---|---|---|
| 96.94% | 2.76% | <0.01% | 0.28% | <0.01% |

## 13. Disposal considerations

**Disposal methods** Follow APVMA approved label for Pesticide disposal directions. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents in accordance with local/regional/national/international regulations. Do not discharge this product or its effluent into lakes, rivers, streams, ponds, estuaries, oceans or other waters. See Section 8 – Exposure Controls and Personal Protection for additional information.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Waste from residues / unused products** If wastes cannot be disposed of according to the product label directions, disposal of this material must be in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal methods). Avoid discharge into water courses or onto the ground.

**Contaminated packaging** Empty containers should have the micromatic fitting removed and be triple rinsed and then taken to your nearest drumMUSTER collection point. Do not use containers to store any other material.

## 14. Transport information

**Road and Rail Transport**

**UN number** UN3489

**Proper shipping name** Toxic by inhalation liquid, flammable, corrosive, n.o.s. (Chloropicrin, 1,3-Dichloropropene)

**Transport hazard class** 6.1 (3) (8)

**Packing group number** I

**Environmental hazards for transport purposes**

**Marine pollutant** Yes (Chloropicrin; 1,3-Dichloropropene)

**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**Hazchem Code** 2WE

**IATA (Air Transport)** UN3489 is **FORBIDDEN** to transport by air

**IMDG (Sea Transport)**

| | |
|---|---|
| **UN number** | UN3489 |
| **Proper shipping name** | TOXIC BY INHALATION LIQUID, FLAMMABLE, CORROSIVE, N.O.S. (Chloropicrin, 1,3-Dichloropropene) |
| **Transport hazard class** | 6.1 (3) (8) |
| **Packing group number** | I |
| **Environmental hazards for transport purposes** | |
| **Marine pollutant** | Yes (Chloropicrin; 1,3-Dichloropropene) |
| **Special precautions for user** | Read safety instructions, SDS and emergency procedures before handling. |
| **EmS** | F-E, S-D |
| **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** | This product is not transported by this method. |

## 15. Regulatory information

| | |
|---|---|
| **Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) established under the Therapeutic Goods Act 1989 (as amended)** | Poisons Schedule – 7 and Appendix J, Part 2 |
| **NICNAS assessment** | Not required for agricultural-only material. |
| **Montreal Protocol (Ozone depleting substances)** | No component is listed. |
| **The Stockholm Convention (Persistent Organic Pollutants)** | No component is listed. |
| **The Rotterdam Convention (Prior Informed Consent)** | No component is listed. |

**International inventories** Chloropicrin (CAS 76-06-2)
1,3-Dichloropropene (CAS 542-75-6)
Dodecylbenzenesulfonic acid, calcium salt (CAS 26264-06-2)
Solvent naphtha (petroleum), light aromatic (CAS 64742-95-6)

| Country(s) | Inventory name | On inventory (yes/no)* |
|---|---|---|
| Australia | Australian Inventory of Chemical Substances (AICS) | Yes |
| Canada | Domestic Substances List (DSL) [CAS 76-06-2, 26264-06-2, and 64742-95-6 only] | Yes |
| Canada | Non-Domestic Substances List (NDSL) [CAS 542-75-6 only] | Yes |
| China | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes |
| Europe | European List of Notified Chemical Substances (ELINCS) | No |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | Yes |
| Korea | Existing Chemicals List (ECL) | Yes |
| Mexico | National Inventory of Chemical Substances (INSQ) | Yes |
| New Zealand | New Zealand Inventory (NZIoC) | Yes |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | Yes |
| Taiwan | Chemical Substance Inventory (TCSI) | Yes |
| United States | Toxic Substances Control Act (TSCA) Inventory | Yes |

* A "Yes" indicates that all of this product's components, unless specific ones only are indicated, comply with inventory requirements administered by the governing country(s). A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information, including date of preparation or last revision

This SDS prepared in accordance with SWA Code of Practice: Preparation of Safety Data Sheets for Hazardous Chemicals, July 2020, amended to reflect GHS 7.

| | |
|---|---|
| **Version 3 date** | May 24, 2024 |
| **Revision history** | Revision Date Format - dd:mm:yyyy |
| 25/11/2019 | Initial version |
| 02/12/2022 | Updated formatting to reflect the adoption of the 7th revised edition of the GHS |
| 24/05/2024 | Section 1 - Updated manufacturer address<br>Section 2 - Removed the Exclamation mark pictogram |

**Abbreviations and Acronyms**

| | |
|---|---|
| ACGIH | American Conference of Governmental Industrial Hygienists |
| ADG Code | Australian Dangerous Goods Code (requirements for land transport of dangerous goods) |
| APVMA | Australian Pesticides and Veterinary Medicines Authority |
| BEL | Biological Exposure Limit |
| CAS | Chemical Abstracts Service |
| CHEMTREC | Chemical Transportation Emergency Center |
| EC50 ($EC_{50}$) | Half Maximal Effective Concentration - concentration of a material in water, a single dose which is expected to cause a biological effect on 50% of a group of test species. |
| EL50 ($EL_{50}$) | Effective loading on 50% of the tested subjects |
| IMDG | International Maritime Dangerous Goods |
| LC50 ($LC_{50}$) | Lethal Concentration - median dose at which 50% of test animals die from inhalation |
| LD50 ($LD_{50}$) | Lethal Dose - median dose at which 50% test animals die from oral or dermal exposure |
| LL50 ($LL_{50}$) | Lethal Load 50 (used in place of LC50 when material is not completely soluble in water at test treatment dose). |
| LOEC | Lowest Observed Effect Concentration |
| NIOSH | National Institute of Occupational Safety and Health (USA) |
| NOEC | No Observed Effect Concentration |
| NTP | National Toxicology Program (USA) |
| OSHA | Occupational Health and Safety Administration (USA) |
| ppb | parts per billion |
| ppm | parts per million |
| REL | Recommended Exposure Limit (NIOSH) |
| TLV | Threshold Limit Value (ACGIH) |
| TWA | Time Weighted Average airborne concentration for a worker in an 8-hour day |
| USA | United States of America |

**Key literature references and sources of data:**

- Hazardous Chemical Information System (HCIS) - Australia
- Toxnet - Hazardous Substance Data Base (United States Center for Disease Control)
- The International Uniform Chemical Information Database (**IUCLID**) – Organization for Economic Cooperation and Development (OECD)
- European Chemicals Agency website (ECHA)
- Australian Dangerous Goods Code International Maritime Dangerous Goods Code
- AS/NZS 1715-2009 Selection, Use, and Maintenance of Respiratory Protective Devices
- AS/NZS 1716-2012 Respiratory Protective Devices
- WorkSafe Australia Hazardous Substance Information System
- Manufacturer pesticide registration data for US EPA and for State of California
- Manufacturer studies on human response

**Disclaimer**

DISCLAIMER: The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal, and release. The information in the sheet was written based on the best knowledge and experience currently available.