

Product name: TELONE™ C-35 Soil Fumigant**Issue Date:** 03.04.2020

Dow AgroSciences* (NZ) Ltd encourages and expects you to read and understand the entire SDS, as there is important information throughout the document. This SDS provides users with information relating to the protection of human health and safety at the workplace, protection of the environment and supports emergency response. Product users and applicators should primarily refer to the product label attached to or accompanying the product container.

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: TELONE™ C-35 Soil Fumigant**Recommended use of the chemical and restrictions on use****Identified uses:** End use fumigant.**COMPANY IDENTIFICATION**

DOW AGROSCIENCES* (NZ) LIMITED
89 PARITUTU ROAD
4310 NEW PLYMOUTH
NEW ZEALAND

Customer Information Number:

0800-803-939

NZCustomerservice@corteva.com**EMERGENCY TELEPHONE NUMBER****24-Hour Emergency Contact:** +64 6 751 2407**Local Emergency Contact:** 0800 844 455**For medical advice, contact the New Zealand Poisons Information Centre:**

0800 POISON (0800 764766)

Transport Emergency Only Dial 111

This SDS may not provide exhaustive guidance for all the HSNO controls assigned to this substance. The NZ EPA website www.epa.govt.nz should be consulted for a full list of triggered controls and cited regulations

2. HAZARDS IDENTIFICATION

Hazard classification

NEW ZEALAND HAZARDOUS SUBSTANCES CLASSIFICATION: Classified as hazardous according to criteria in the New Zealand Hazardous Substances (Minimum Degrees of Hazard) Notice 2017, and the Hazardous Substances (Classification) Notice 2017. Refer to section 15 for HSNO Approval number.

HSNO Hazard Classification: 3.1B, 6.1A, 6.5A, 6.6B, 6.7B, 6.9A, 8.2C, 8.3A, 9.1A, 9.2B, 9.3A



Signal word: **DANGER!**

Hazard statements

Highly flammable liquid and vapour
Fatal if inhaled
Fatal if swallowed
Toxic in contact with skin
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause an allergic skin reaction
Suspected of causing genetic defects
Suspected of causing cancer
Causes damage to lungs.
Causes severe skin burns and eye damage
Very toxic to aquatic life
Toxic to the soil environment
Very toxic to terrestrial vertebrates

Prevention:

Keep out of reach of children
Read label before use
Keep away from heat/sparks/open flames/hot surfaces
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 protective gloves/protective clothing/eye protection/face protection
Do not breathe vapours
Use only outdoors or in a well-ventilated area
Wear respiratory protection
Wash and face thoroughly after handling
Do not eat, drink or smoke when using this product
Causes severe skin burns and eye damage.
Contaminated clothing should not be allowed out of the workplace
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood

Response:

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower with plenty of soap and water
IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for

breathing. Immediately call a POISON CENTRE or doctor/physician
 If experiencing respiratory symptoms: Call a POINSON CENTRE or doctor/physician
 IF SWALLOWED: Rinse mouth. Do not induce vomiting.
 If skin irritation occurs: get medical advice/attention
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
 If exposed or concerned: Get medical advice/attention
 In case of fire: Evacuate area. Use: Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Synthetic foam.
 If medical advice is needed, have product container or label at hand
 Immediately call a POISON CENTRE of doctor/physician if you feel unwell
 Wash contaminated clothes before re-use
 Specific treatment – see section 4 on this SDS.
 Collect spillage

Storage:

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture.

Component	CASRN	Concentration
1,3-Dichloropropene	542-75-6	63.4 %
Chloropicrin	76-06-2	34.7 %
Balance	Not available	1.9 %

4. FIRST AID MEASURES

Consult the National Poisons Information Centre (0800 POISON (0800 764 766) or a doctor in every case of suspected chemical poisoning. Never give fluids or induce vomiting if a patient is unconscious or convulsing regardless of cause of injury. If breathing difficulties occur seek medical attention immediately.

Description of first aid measures**General advice:**

First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice. If breathing is difficult, oxygen should be administered by qualified personnel.

Skin contact: Immediate continued and thorough washing in flowing water for at least 30 minutes is imperative while removing contaminated clothing. Prompt medical consultation is essential. Wash clothing before re-use. Properly dispose of leather items such as shoes, belts, and watchbands. Suitable emergency safety shower facility should be immediately available.

Eye contact: Wash immediately and continuously with flowing water for at least 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Obtain prompt medical consultation, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.

Ingestion: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed:

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed

Notes to physician: Maintain adequate ventilation and oxygenation of the patient. May cause respiratory sensitization or asthma-like symptoms. Bronchodilators, expectorants and antitussives may be of help. Treat bronchospasm with inhaled beta2 agonist and oral or parenteral corticosteroids. Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. Administer 100% oxygen to relieve headache and a general sense of weakness. Determine methemoglobin concentration of blood every 3 to 6 hours for first 24 hours. It should return to normal within 24 hours. The treatment of toxic methemoglobinemia may include the intravenous administration of methylene blue. If methemoglobin >10-20% consider methylene blue 1-2 mg/kg body weight as 1% solution intravenously over 5 minutes followed by 15-30 cc flush (Price D, Methemoglobinemia, Goldfrank Toxicologic Emergencies, 5th ed., 1994). Also provide 100% oxygen. If burn is present, treat as any thermal burn, after decontamination. Because rapid absorption may occur through the lungs if aspirated and cause systemic effects, the decision of whether to induce vomiting or not should be made by a physician. Probable mucosal damage may contraindicate the use of gastric lavage. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Have the Safety Data Sheet, and if available, the product container or label with you when calling a poison control center or doctor, or going for treatment. Methemoglobinemia may aggravate any preexisting condition sensitive to a decrease in available oxygen, such as chronic lung disease, coronary artery disease or anemia. Excessive exposure may aggravate preexisting asthma and other respiratory disorders (e.g. emphysema, bronchitis, reactive airways dysfunction syndrome).

5. FIREFIGHTING MEASURES

Hazchem Code: 2WE

Suitable extinguishing media: Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. General purpose synthetic foams (including AFFF type) or protein foams are preferred if available. Alcohol resistant foams (ATC type) may function. Water fog, applied gently may be used as a blanket for fire extinguishment.

Unsuitable extinguishing media: Do not use direct water stream. Straight or direct water streams may not be effective to extinguish fire.

Special hazards arising from the substance or mixture

Hazardous combustion products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion

products may include and are not limited to: Nitrogen oxides. Hydrogen chloride. Hydrocarbons. Carbon monoxide. Carbon dioxide.

Unusual Fire and Explosion Hazards: Container may rupture from gas generation in a fire situation. Electrically ground and bond all equipment. Flammable mixtures of this product are readily ignited even by static discharge. Vapors are heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flash back may occur. Flammable mixtures may exist within the vapor space of containers at room temperature. Flammable concentrations of vapor can accumulate at temperatures above flash point; see Section 9. Dense smoke is produced when product burns.

Advice for firefighters

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Stay upwind. Keep out of low areas where gases (fumes) can accumulate. Consider feasibility of a controlled burn to minimize environment damage. Foam fire extinguishing system is preferred because uncontrolled water can spread possible contamination. Water may not be effective in extinguishing fire. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Do not use direct water stream. May spread fire. Eliminate ignition sources. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Water fog, applied gently may be used as a blanket for fire extinguishment. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this (M)SDS.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire-fighting clothing (includes fire-fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire-fighting operations. If contact is likely, change to full chemical resistant fire-fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Evacuate area. Refer to section 7, Handling, for additional precautionary measures. Only trained and properly protected personnel must be involved in clean-up operations. Keep personnel out of low areas. Keep upwind of spill. Ventilate area of leak or spill. No smoking in area. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Vapour explosion hazard. Keep out of sewers. For large spills, warn public of downwind explosion hazard. Check area with combustible gas detector before reentering area. Ground and bond all containers and handling equipment. Eliminate all sources of ignition in vicinity of spill or released vapour to avoid fire or explosion. Ground and bond all containers and handling equipment. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

Methods and materials for containment and cleaning up: Contain spilled material if possible. Small spills: Absorb with materials such as: Clay. Dirt. Sand. Sweep up. Collect in suitable and

properly labeled containers. Large spills: Contact Corteva Agriscience for clean-up assistance. Ground and bond all containers and handling equipment. Pump with explosion-proof equipment. If available, use foam to smother or suppress. See Section 13, Disposal Considerations, for additional information.

7. HANDLING AND STORAGE

Keep away from heat, sparks and flame. Keep out of reach of children. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Vapors are heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flash back may occur. Do not breathe vapour. Do not get in eyes, on skin, on clothing. Do not swallow. Wash thoroughly after handling. Keep container closed. Use only with adequate ventilation. Never use air pressure for transferring product. No smoking, open flames or sources of ignition in handling and storage area. Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers. Use of non-sparking or explosion-proof equipment may be necessary, depending upon the type of operation. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

Conditions for safe storage: Store in a dry place. Store in original container. Keep container tightly closed when not in use. Do not store near food, foodstuffs, drugs or potable water supplies. Minimize sources of ignition, such as static build-up, heat, spark or flame.

This substance is subject to a requirement for an emergency management plan, secondary containment and signage, whenever it is held in quantities of 100 L or more, either alone or in aggregate with other hazardous substances. See Hazardous Substances Emergency Management and Identification Regulations.

This substance is subject to a requirement for an emergency management plan, secondary containment and signage, whenever it is held either alone or in aggregate with other hazardous substances. See Hazardous Substances Emergency Management and Identification Regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.

Component	Regulation	Type of listing	Value/Notation
1,3-Dichloropropene	ACGIH	TWA	1 ppm SKIN
	NZ OEL	WES-TWA	4.5 mg/m3 1 ppm SKIN
Chloropicrin	ACGIH	TWA	0.1 ppm
	NZ OEL	WES-TWA	0.67 mg/m3 0.1 ppm

RECOMMENDATIONS IN THIS SECTION ARE FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD SEE THE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.

Exposure controls

Engineering controls: Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only in enclosed systems or with local exhaust ventilation. Exhaust systems should be designed to

move the air away from the source of vapor/aerosol generation and people working at this point. Lethal concentrations may exist in areas with poor ventilation.

Individual protection measures

Eye/face protection: Use chemical goggles. If exposure causes eye discomfort, use a full-face respirator.

Skin protection

Hand protection: Use chemical resistant gloves classified under standard AS/NZS 2161.10: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Ethyl vinyl alcohol laminate ("EVAL"). Viton. Examples of acceptable glove barrier materials include: Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Butyl rubber. Avoid gloves made of: Polyvinyl chloride ("PVC" or "vinyl"). When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 or higher (breakthrough time greater than 480 minutes according to AS/NZS 2161.10) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to AS/NZS 2161.10) is recommended. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Other protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use an approved respirator. When respiratory protection is required, use an approved positive-pressure self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus. In confined or poorly ventilated areas, use an approved self-contained breathing apparatus or positive pressure air line with auxiliary self-contained air supply.

Other Information: Selection and use of personal protective equipment should be in accordance with the recommendations in one or more of the relevant Australian/New Zealand Standards, including:

AS/NZS 1336: Eye and face protection – Guidelines.

AS/NZS 1337: Personal eye protection - Eye and face protectors for occupational applications.

AS/NZS 1715: Selection, use and maintenance of respiratory protective equipment.

AS/NZS 2161: Occupational protective gloves.

AS/NZS 2210: Occupational protective footwear.

AS/NZS 4501: Occupational protective clothing Set

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state	Liquid.
Colour	Yellow
Odour	Pungent
Odour Threshold	No test data available
pH	6.9 1% pH Electrode (1% aqueous suspension)
Melting point/range	No data available
Freezing point	-85 °C
Boiling point (760 mmHg)	93 °C

Flash point – closed cup	27 °C <i>Pensky-Martens Closed Cup ASTM D 93</i>
Evaporation Rate (Butyl Acetate = 1)	No test data available
Flammability (solid, gas)	No
Lower explosion limit	No test data available
Upper explosion limit	No test data available
Vapour Pressure	No test data available
Relative Vapour Density (air = 1)	No test data available
Relative Density (water = 1)	1.34 at 23 °C / 4 °C <i>EC Method A3</i>
Water solubility	Soluble
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	310 °C at 752 mmHg <i>92/69/EEC A15 Ramped Temperature</i>
Decomposition temperature	No test data available
Dynamic Viscosity	0.690 mPa.s at 40 °C <i>OECD 114</i>
Kinematic Viscosity	0.515 mm ² /s at 40 °C <i>OECD 114</i>
Explosive properties	No <i>EEC A14</i>
Oxidizing properties	No
Molecular weight	No data available

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

Reactivity: No dangerous reaction known under conditions of normal use.

Chemical stability: Unstable at elevated temperatures.

Possibility of hazardous reactions: Polymerization will not occur.

Conditions to avoid: Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems. Avoid static discharge.

Incompatible materials: Avoid contact with: Amines. Oxidizers. Strong bases. Avoid contact with metals such as: Zinc. Cadmium. Magnesium. Magnesium alloys. Aluminum. Aluminum alloys.

Hazardous decomposition products: Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Hydrogen chloride. Nitrogen oxides. Toxic gases are released during decomposition.

11. TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.

Acute toxicity

Acute oral toxicity

Moderate toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. Swallowing may result in gastrointestinal irritation or ulceration.

As product: LD50, Rat, male and female, 238 mg/kg OECD 401 or equivalent
LD50, Rat, male, 145 mg/kg

Acute dermal toxicity

Prolonged or widespread skin contact may result in absorption of harmful amounts.

As product: LD50, Rabbit, male, 907 mg/kg

Acute inhalation toxicity

Initial symptoms due to low-level exposure may not seem severe but death may ensue due to delayed effects of lung injury and/or infection. Brief exposure (minutes) to easily attainable concentrations may cause serious adverse effects, even death. Excessive exposure may cause severe irritation to upper respiratory tract (nose and throat) and lungs. May cause severe pulmonary edema (fluid in the lungs). Excessive exposure may cause lung injury

Effects may be delayed. May cause methemoglobinemia, thereby impairing the blood's ability to transport oxygen. May cause central nervous system effects. May cause nausea and vomiting.

As product: LC50, Rat, 4 Hour, vapour, 0.206 mg/l

Skin corrosion/irritation

Brief contact may cause severe skin burns. Symptoms may include pain, severe local redness and tissue damage.

Vapour may cause skin irritation.

May cause more severe response if skin is abraded (scratched or cut).

Classified as corrosive to the skin according to DOT guidelines.

Serious eye damage/eye irritation

May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur.

Vapour may cause lacrimation (tears).

Vapour may cause eye irritation experienced as mild discomfort and redness.

Sensitization

Has caused allergic skin reactions when tested in guinea pigs.

For respiratory sensitization: No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)

May cause respiratory irritation.

Route of Exposure: Inhalation

Specific Target Organ Systemic Toxicity (Repeated Exposure)

For the active ingredient(s): In animals, effects have been reported on the following organs: Bladder. Blood-forming organs (Bone marrow & Spleen). Gastrointestinal tract. Liver. Lung. Respiratory tract.

Carcinogenicity

For the active ingredient(s):

1,3-Dichloropropene. Has been shown to cause cancer in laboratory animals by the oral route.

Inhalation exposure resulted in an increase in the normal occurrence of benign lung tumors in male mice.

Chloropicrin. Available data are inadequate to evaluate carcinogenicity.

Teratogenicity

For the active ingredient(s):

Chloropicrin. Has been toxic to the foetus in laboratory animals at doses toxic to the mother. Did not cause birth defects in laboratory animals.

1,3-Dichloropropene. Did not cause birth defects or other effects in the foetus even at doses which caused toxic effects in the mother.

Reproductive toxicity

For the active ingredient(s): In animal studies, did not interfere with reproduction.

Mutagenicity

For the active ingredient(s): Chloropicrin. Has been shown to have mutagenic activity in bacteria. Animal genetic toxicity studies were inconclusive

For the active ingredient(s): 1,3-Dichloropropene. In vitro genetic toxicity studies were negative in some cases and positive in other cases. Animal genetic toxicity studies were negative.

Aspiration Hazard

May be fatal if swallowed and enters airways.

12. ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available.

Ecotoxicity**Acute toxicity to fish**

LC50, Cyprinus carpio (Carp), static test, 96 Hour, 0.53 mg/l

Material is very highly toxic to aquatic organisms on an acute basis (LC50/EC50 <0.1 mg/L in the most sensitive species).

Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), static test, 48 Hour, 0.73 mg/l, OECD Test Guideline 202 or Equivalent

Acute toxicity to algae/aquatic plants

ErC50, Pseudokirchneriella subcapitata (green algae), 72 Hour, Growth rate inhibition, 0.0035 mg/l, OECD Test Guideline 201 or Equivalent

EbC50, Pseudokirchneriella subcapitata (green algae), 72 Hour, 0.00033 mg/l

Persistence and degradability**1,3-Dichloropropene**

Biodegradability: Biodegradation may occur under aerobic conditions (in the presence of oxygen).

10-day Window: Fail

Biodegradation: 4.9 %

Exposure time: 28 d

Method: OECD Test Guideline 301D or Equivalent

Theoretical Oxygen Demand: 1.281 mg/mg

Biological oxygen demand (BOD): 0.148 mg/mg

Stability in Water (1/2-life) : 2.3 - 4.75 d

Chloropicrin

Biodegradability: Biodegradation may occur under both aerobic and anaerobic conditions (in the presence or absence of oxygen).

Theoretical Oxygen Demand: 0.10 mg/mg

Balance

Biodegradability: No relevant data found.

Bioaccumulative potential**1,3-Dichloropropene**

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient: n-octanol/water(log Pow): 1.82 - 2.1 Measured

Chloropicrin

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient: n-octanol/water(log Pow): 2.09 Measured

Balance

Bioaccumulation: No relevant data found.

Mobility in Soil**1,3-Dichloropropene**

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

Partition coefficient (Koc): 44.7 Measured

Chloropicrin

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

Partition coefficient (Koc): 36 - 62 Estimated.

Balance

No relevant data found.

Results of PBT and vPvB assessment**1,3-Dichloropropene**

This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Chloropicrin

This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Balance

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

Other adverse effects**1,3-Dichloropropene**

1,3-Dichloropropene has a stratospheric ozone depletion potential (ODP) of 0.002, relative to CFC 12 (ODP=1).

Chloropicrin

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Balance

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

13. DISPOSAL CONSIDERATIONS

Disposal methods: If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

Contaminated packaging: Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.

Waste handling, treatment and disposal practices must be in compliance with the New Zealand Hazardous Substances (Disposal) Notice 2017. Additional local requirements may be applicable in accordance with planning controls under the Resource Management Act. Regulations concerning waste management may vary in different locations.

14. TRANSPORT INFORMATION

Classification for ROAD and Rail transport:

Proper shipping name	TOXIC BY INHALATION LIQUID, FLAMMABLE, CORROSIVE, N.O.S.(1,3-Dichloropropene, Chloropicrin)
UN number	UN 3489
Class	6.1 (3, 8)
Packing group	I
Environmental hazards	Chloropicrin

Classification for SEA transport (IMO-IMDG):

Proper shipping name	TOXIC BY INHALATION LIQUID, FLAMMABLE, CORROSIVE, N.O.S.(1,3-Dichloropropene, Chloropicrin)
UN number	UN 3489
Class	6.1 (3, 8)
Packing group	I
Marine pollutant	Chloropicrin
Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code	Consult IMO regulations before transporting ocean bulk

Classification for AIR transport (IATA/ICAO):

Transport forbidden by regulation(1,3-Dichloropropene, Chloropicrin)

Hazchem Code: 2WE

Further information

This information is not intended to convey all specific regulatory or operational requirements/ information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. REGULATORY INFORMATION

ACVMG APPROVAL NUMBER: P5701

ERMA New Zealand Approval Code: HSR001640

ADVICE TO PRODUCT USERS REGARDING HSNO CONTROLS: Users of this product should make reference to the New Zealand Hazardous Substances and New Organisms Act and Regulations for relevant risk management controls. Additional local requirements may be applicable in accordance with planning controls under the Resource Management Act. Refer to Environment Protection Authority publication; User Guide to the HSNO Controls Regulations. <http://www.epa.govt.nz>

16. OTHER INFORMATION

Revision

Identification Number: / A157 / Issue Date: 03.04.2020 / Version: Replaces 04.12.2019
 DAS Code: NAF-186

Legend

ACGIH	USA. ACGIH Threshold Limit Values (TLV)
NZ OEL	New Zealand. Workplace Exposure Standards for Atmospheric Contaminants
SKIN	Absorbed via skin
TWA	8-hour, time-weighted average
WES-TWA	Workplace Exposure Standard - Time Weighted average

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; CPR - Controlled Products Regulations; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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