



# SAFETY DATA SHEET

## 1. Identification

Product identifier

**Tri-Form 80 EC**

Other means of identification

SDS number

176-USA-TCI

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. See Section 15 of this SDS for further information.

Recommended restrictions

Use of this product requires supervision by a certified pesticide applicator.

Manufacturer/Importer/Supplier/Distributor information

Company name

Trical, Inc.

Address

8770 Highway 25  
Hollister, CA 95023, USA

Telephone

(831) 637-0195

E-mail

sds@trical.com

Emergency phone number

CHEMTREC (US/Canada)  
CHEMTREC (International)

1-800-424-9300  
+1 703-527-3887 (collect calls accepted)

## 2. Hazard(s) identification

Physical hazards

Not classified.

Health Hazards

Acute toxicity, oral	Category 2
Acute toxicity, dermal	Category 2
Acute toxicity, inhalation	Category 1
Skin corrosion/irritation	Category 1C
Serious 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

Environmental hazards

Hazardous to the aquatic environment, acute hazard	Category 1
Hazardous to the aquatic environment, long-term hazard	Category 2

OSHA defined hazards

Not classified.

Label elements



Signal word

Danger

<b>Hazard statement</b>	Fatal if swallowed, in contact with skin or 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.
<b>Precautionary statement</b>	
<b>Prevention</b>	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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/vapors/spray. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment.
<b>Response</b>	Specific treatment is urgent. If swallowed: Rinse mouth. Do not induce vomiting. If swallowed: Immediately call a poison center/doctor. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center/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.
<b>Storage</b>	Store in a well-ventilated place. Keep container tightly closed. Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	Lachrymator - Vapor extremely irritating to the eyes and respiratory tract. Closed cylinders may rupture or burst if heated by fire. Cylinders are not equipped with relief valves or fusible overpressure devices.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	CAS number	%
Chloropicrin	76-06-2	75.5*
1,3-Dichloropropene	542-75-6	18.5*
Dodecylbenzenesulfonic acid, calcium salt	26264-06-2	1 - < 3
Solvent naphtha (petroleum), light aromatic	64742-95-6	1 - < 3
Other ingredients	N/A	1.0

**Composition comments** \* = % Active ingredient nominal.

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

### 4. First-aid measures

<b>Inhalation</b>	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 control center for further treatment advice.
<b>Skin contact</b>	Remove contaminated clothing immediately and wash skin for 15-20 minutes with water, and if available, use soap. Call a physician or poison control center 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.
<b>Eye contact</b>	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 control center immediately.
<b>Ingestion</b>	Call a physician or poison control center 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.
<b>Most important symptoms/effects, acute and delayed</b>	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.

<b>Indication of immediate medical attention and special treatment needed</b>	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. 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.
<b>General information</b>	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.
<b>5. Fire-fighting measures</b>	
<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed. Combustion products include: Carbon monoxide. Carbon dioxide. Chlorine. Hydrogen chloride. Phosgene. Nitrosyl chloride. Nitrogen oxides.  Per transport regulations, cylinders containing Chloropicrin are not equipped with relief valves or fusible overpressure devices.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	In case of fire and/or explosion do not breathe smoke, gas or vapors. Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	The product is not flammable.
<b>6. Accidental release measures</b>	
<b>Personal precautions, protective equipment and emergency procedures</b>	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 vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Move leaking or damaged cylinders 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. For small spill, consider initial isolation for at least 60 meters (200 feet). For large spill, consider initial isolation for at least 200 meters (600 feet).
<b>Methods and materials for containment and cleaning up</b>	Keep combustibles (wood, paper, oil, etc.) away from spilled material. Work upwind, if possible.  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 vapors or divert vapor cloud drift. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.  Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.  Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
<b>Environmental precautions</b>	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. Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ (U.S. SARA Section 304).

## 7. Handling and storage

### Precautions for safe handling

Obtain special instructions before use. Valve protection caps must remain in place unless container is secured. Close valve after each use and when container is empty. Do not drop, drag, slide or roll cylinders on their sides. Do not subject cylinders to rough handling or to abnormal mechanical shock. Use a suitable hand truck or forklift to move heavier cylinders. Never insert an object (e.g. wrench, screwdriver, pry bar) into cap openings. Use an adjustable strap wrench to remove over-tight or rusted caps. Open valve slowly. Do not heat container by any means to increase the discharge rate of product from the container. Use only dry nitrogen gas to pressurize cylinders. Polyethylene or Teflon® tubing may be used to transfer this product at low pressures. Regulator must be operated with a secondary pressure relief valve. DO NOT use high pressure hose connection between the nitrogen supplying cylinder and this product's cylinder. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not breathe vapor. 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. 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/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Chloropicrin (CAS 76-06-2)	PEL	0.1 ppm (0.7 mg/m3)

#### US. ACGIH Threshold Limit Values

Components	Type	Value
1,3-Dichloropropene (CAS 542-75-6)	TWA	1 ppm
Chloropicrin (CAS 76-06-2)	TWA	0.1 ppm

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

Components	Type	Value
1,3-Dichloropropene (CAS 542-75-6)	TWA	1 ppm (5 mg/m3)
Chloropicrin (CAS 76-06-2)	TWA	0.1 ppm (0.7 mg/m3)

### Biological limit values

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

### Exposure guidelines

#### US - California OELs: Skin designation

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

Can be absorbed through the skin.

#### US - Minnesota Haz Subs: Skin designation applies

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

Skin designation applies.

#### US - Tennessee OELs: Skin designation

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

Can be absorbed through the skin.

#### 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.

<b>Appropriate engineering controls</b>	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.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Wear safety glasses with side shields and a face shield. Wear a full-face respirator, if needed.
<b>Skin protection</b>	
<b>Hand protection</b>	Wear appropriate chemical resistant gloves.  Incidental contact: < 10 minutes. Nitrile, butyl rubber or neoprene gloves are recommended. More than incidental contact: Viton or Silver Shield ® gloves are recommended.
<b>Other</b>	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.
<b>Respiratory protection</b>	For non-handlers and non-applicators: <ul style="list-style-type: none"> <li>- If working in an environment where the eyes are stinging and watery due to exposure to this product, wear a NIOSH-approved full facepiece respirator with an organic vapor cartridge.</li> </ul> For all EPA handlers (including applicators): <ul style="list-style-type: none"> <li>- Must wear a half-face air-purifying respirator equipped with an organic-vapor cartridge and a particulate pre-filter.</li> <li>- 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: a NIOSH certified full facepiece air-purifying respirator equipped with an organic vapor cartridge and a particulate pre-filter, or a gas mask with a canister approved for organic vapor.</li> </ul> Emergency or planned entry into unknown concentrations or IDLH conditions: <ul style="list-style-type: none"> <li>- Any self-contained breathing apparatus that has a full face piece and is operated in a pressure-demand or other positive-pressure mode.</li> </ul> Escape: <ul style="list-style-type: none"> <li>- Air-purifying respirator equipped with full facepiece and an organic vapor cartridge.</li> <li>- Any air-purifying hood style CBRN escape-certified respirator.</li> <li>- Air-purifying respirator with canisters (TC-14G) that include the escape gas mask (canister) respirator, the gas mask (canister) respirator, and the filter self-rescuer.</li> <li>- Any self-contained breathing apparatus with hood or full-facepiece mask.</li> </ul> Respirators certified "escape only" can only be used for escape purposes and CANNOT be used for responding to emergencies.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	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

<b>Appearance</b>	Transparent liquid
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Colorless to pale yellow. Brown if prolonged contact with metal packaging.
<b>Odor</b>	Sweet, pungent. Irritating.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	Not available

<b>Initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	208.0 °F (97.8 °C) Setaflash Closed Cup
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.

#### Upper/lower flammability or explosive limits

<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Relative density</b>	1.51 @ 20 °C (68 °F)
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.

#### Other information

<b>Density</b>	12.60 lbs/gal @ 20 °C (68 °F)
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## 10. Stability and reactivity

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

## 11. Toxicological information

#### Information on likely routes of exposure

<b>Inhalation</b>	Fatal if inhaled. May cause damage to organs by inhalation.
<b>Skin contact</b>	Fatal in contact with skin. Causes severe skin burns. May cause an allergic skin reaction.
<b>Eye contact</b>	Causes serious eye damage. Lachrymation (discharge of tears).
<b>Ingestion</b>	Fatal if swallowed. Causes digestive tract burns.

<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	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. Early symptoms of low exposure are stinging/tearing of the eyes and irritation of the throat. Nausea or vomiting may occur.
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#### Information on toxicological effects

<b>Acute toxicity</b>	Fatal if inhaled. Fatal in contact with skin. Fatal if swallowed.
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Components	Species	Test Results
1,3-Dichloropropene (CAS 542-75-6)		
<b>Acute</b>		
<i>Dermal, LD50</i>	Rabbit	> 333 mg/kg

Components	Species	Test Results
<i>Inhalation</i> , LC50	Rat	> 855 ppm, 4 hours
<i>Oral</i> , LD50	Rat	> 110 mg/kg
Chloropicrin (CAS 76-06-2)		
		> 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 ppb, Human sensory irritation threshold (eye irritation).
		73 - 150 ppb, Human response - mild irritant to eyes and throat.
Dodecylbenzenesulfonic acid, calcium salt (CAS 26264-06-2)		
<b>Acute</b>		
<i>Oral</i> , LD50	Rat	4000 mg/kg
Solvent naphtha (petroleum), light aromatic (CAS 64742-95-6)		
<b>Acute</b>		
<i>Dermal</i> , LD50	Rabbit	> 1900 mg/kg, 24 Hours
<i>Inhalation</i> , LC50	Rat	> 4.96 mg/l, 4 Hours
<i>Oral</i> , LD50	Rat	> 4800 mg/kg
<b>Skin corrosion/irritation</b>	Causes severe skin burns.	
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.	
<b>Respiratory or skin sensitization</b>		
<b>Respiratory sensitization</b>	Not classified.	
<b>Skin sensitization</b>	May cause an allergic skin reaction.	
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
<b>Carcinogenicity</b>	Suspected of causing cancer.	
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>		
1,3-Dichloropropene (CAS 542-75-6)	2B Possibly carcinogenic to humans.	
<b>NTP Report on Carcinogens</b>		
1,3-Dichloropropene (CAS 542-75-6)	Reasonably Anticipated to be a Human Carcinogen.	
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>		
Not listed.		
<b>Reproductive toxicity</b>	Not classified.	
<b>Specific target organ toxicity - single exposure</b>	Causes damage to organs (Respiratory system). Respiratory tract irritation.	
<b>Specific target organ toxicity - repeated exposure</b>	Causes damage to organs (lung, liver, kidney, respiratory system) through prolonged or repeated exposure.	

<b>Aspiration hazard</b>	Not classified.
<b>Chronic effects</b>	Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects. Causes damage to organs through prolonged or repeated exposure.

## 12. Ecological information

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

Components			Species	Test Results
1,3-Dichloropropene (CAS 542-75-6)				
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	
		Sheepshead minnow (Cyprinodon variegatus)	0.91 mg/l, 96 hours	
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	
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	
		Fish	11 µg/l, 96 hours	
		Sheepshead minnow (Cyprinodon variegatus)	100 µg/l, 96 hours	
Chronic				
Other	NOEC	Lemna minor	11 µg/l, 7 days	
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** No data is available on the degradability of this product.

**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

**Mobility in soil** No data available.

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

## 13. Disposal considerations

**Disposal instructions** Follow EPA 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/container 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 unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge.

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

<b>Hazardous waste code</b>	A toxicity characteristic leaching procedure (TCLP) will be necessary to determine if a toxicity waste code is applicable. Corrosivity (pH) will need to be determined. The waste code(s) should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of 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 instructions). Avoid discharge into water courses or onto the ground.
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow pesticide use label instructions to clean container before final disposal. Cleaned, empty containers should be taken to a qualified re-conditioner or to an approved waste site for recycling or disposal.

## 14. Transport information

### DOT

<b>UN number</b>	UN3390
<b>UN proper shipping name</b>	Toxic by inhalation liquid, corrosive, n.o.s. (Chloropicrin, 1,3-Dichloropropene)
<b>Transport hazard class(es)</b>	
<b>Class</b>	6.1
<b>Subsidiary risk</b>	8
<b>Label(s)</b>	6.1, 8
<b>Packing group</b>	I
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	Yes (Chloropicrin; 1,3-Dichloropropene)
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Special provisions</b>	2, B9, B14, B32, T20, TP2, TP13, TP27, TP38, TP45
<b>Packaging exceptions</b>	None
<b>Packaging non bulk</b>	227
<b>Packaging bulk</b>	244
Reportable quantity (RQ) for 1,3-Dichloropropene is 100 pounds (45.4 kilograms).	

### IATA

<b>UN number</b>	Not available.
<b>UN proper shipping name</b>	Forbidden
<b>Transport hazard class(es)</b>	
<b>Class</b>	Not available.
<b>Subsidiary risk</b>	-
<b>Packing group</b>	Not applicable.
<b>Environmental hazards</b>	No.
<b>Special precautions for user</b>	IATA: Not permitted for transport.

### IMDG

<b>UN number</b>	UN3390
<b>UN proper shipping name</b>	TOXIC BY INHALATION LIQUID, CORROSIVE, N.O.S. (Chloropicrin, 1,3-Dichloropropene)
<b>Transport hazard class(es)</b>	
<b>Class</b>	6.1
<b>Subsidiary risk</b>	8
<b>Packing group</b>	I
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	Yes (Chloropicrin; 1,3-Dichloropropene)
<b>EmS</b>	F-A, S-B
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

## 15. Regulatory information

### US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

DANGER, POISON, Skull and crossbones, Fatal if inhaled, swallowed or absorbed through the skin. Poisonous liquid and vapor. Corrosive. Liquid causes skin burns and irreversible eye damage. Do not get in eyes, on skin or on clothing. Do not breathe mist or vapor. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. May cause lung, liver, and kidney damage and respiratory system irritation upon prolonged contact. The use of this product may be hazardous to your health. This product contains 1,3-dichloropropene, which has been determined to cause tumors in laboratory animals. Risks can be reduced by exactly following directions for use, precautionary statements, and by wearing the personal protective equipment specified in the labeling. Chloropicrin is readily identifiable by smell. Exposures to very low concentrations of vapor will cause irritation of eyes, nose and throat. Continued exposure after irritation occurs, or exposure to higher concentration may cause painful irritation or temporary blindness.

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

1,3-Dichloropropene (CAS 542-75-6)	LISTED
Dodecylbenzenesulfonic acid, calcium salt (CAS 26264-06-2)	LISTED

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes
	Delayed Hazard - Yes
	Fire Hazard - No
	Pressure Hazard - No
	Reactivity Hazard - No

#### SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

#### SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
1,3-Dichloropropene	542-75-6	18.5 (active ingredient)
Chloropicrin	76-06-2	75.5 (active ingredient)

### Other federal regulations

#### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

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

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

#### Safe Drinking Water Act (SDWA)

Not regulated.

### US state regulations

#### US. Massachusetts RTK - Substance List

1,3-Dichloropropene (CAS 542-75-6)  
Chloropicrin (CAS 76-06-2)  
Dodecylbenzenesulfonic acid, calcium salt (CAS 26264-06-2)

#### US. New Jersey Worker and Community Right-to-Know Act

1,3-Dichloropropene (CAS 542-75-6)  
Chloropicrin (CAS 76-06-2)  
Dodecylbenzenesulfonic acid, calcium salt (CAS 26264-06-2)

**US. Pennsylvania Worker and Community Right-to-Know Law**

1,3-Dichloropropene (CAS 542-75-6)  
 Chloropicrin (CAS 76-06-2)  
 Dodecylbenzenesulfonic acid, calcium salt (CAS 26264-06-2)

**US. Rhode Island RTK**

1,3-Dichloropropene (CAS 542-75-6)  
 Chloropicrin (CAS 76-06-2)  
 Dodecylbenzenesulfonic acid, calcium salt (CAS 26264-06-2)

**US. California Proposition 65**

WARNING: This product contains a chemical known to the State of California to cause cancer.

**US. California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**

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

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	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
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\* A "Yes" indicates this product complies with the 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**

**Issue date** 15-November-2014

**Revision date** 17-February-2015

**Version #** 02

**Revision History**

02-17-15 Section 3: Switched order of listed ingredients

**Further information** None

**NFPA ratings**

NFPA Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

**Disclaimer**

The information in the sheet was written based on the best knowledge and experience currently available. Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. SELLER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. Inherent Risks of Use: It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.) abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of the seller. To the extent consistent with applicable law, all such risks shall be assumed by buyer.