

Hazard statement	Combustible liquid. Harmful if swallowed. Harmful if inhaled. May cause an allergic skin reaction. Suspected of causing cancer. May cause drowsiness or dizziness. May be fatal if swallowed and enters airways. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.
Precautionary statement	
Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well ventilated area. Wear protective gloves/protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid breathing mist or vapor. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.
Response	IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth. Do NOT induce vomiting. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. IF exposed or concerned: Get medical advice/attention. In case of fire: Use appropriate media to extinguish. Collect spillage.
Storage	Store locked up. Store in a well-ventilated place. Keep cool.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Supplemental information	This is a pesticide product registered in Canada under the Pest Control Products Act and is subject to certain labeling requirements. These requirements differ from the classification criteria and hazard information required for GHS compliant safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced in section 15. The pesticide label also includes other important information, including directions for use.
Other hazards	None known.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Permethrin	3-Phenoxybenzyl (1RS,3RS;1RS,3SR)-3-(2,2-dichlorovinyl)- -2,2-dimethylcyclopropanecarboxylate	52645-53-1	48.1 (500 g/L)
Solvent naphtha (petroleum), heavy aromatic		64742-94-5	35 - 50

Constituents

Chemical name	Common name and synonyms	CAS number	%
Naphthalene		91-20-3	< 5

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

4. First-aid measures

Inhalation

Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. Get medical advice/attention if you feel unwell. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.

Eye contact

Rinse with water. Get medical attention if irritation develops and persists.

Ingestion

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.

Most important symptoms/effects, acute and delayed

Aspiration may cause pulmonary edema and pneumonitis. Direct contact with eyes may cause temporary irritation. May cause an allergic skin reaction.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

General information

If exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions

In case of fire and/or explosion do not breathe fumes. 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

Combustible liquid.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material.

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.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for reuse. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Do not handle until all safety precautions have been read and understood. Keep away from open flames, hot surfaces and sources of ignition. All equipment used when handling the product must be grounded. Do not taste or swallow. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Wash contaminated clothing before reuse.

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 tightly closed original container at a temperature above 0°C. Store in a well-ventilated place. Keep in an area equipped with sprinklers.

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values (TLV)

Components	Type	Value
Permethrin (CAS 52645-53-1)	TWA	5 mg/m ³

US. ACGIH Threshold Limit Values (TLV)

Constituents	Type	Value
Naphthalene (CAS 91-20-3)	TWA	10 ppm

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended

Components	Type	Value	Form
Permethrin (CAS 52645-53-1)	TWA	5 mg/m ³	
Solvent naphtha (petroleum), heavy aromatic (CAS 64742-94-5)	TWA	200 mg/m ³	Vapor.

Constituents	Type	Value
Naphthalene (CAS 91-20-3)	STEL	79 mg/m ³
		15 ppm
	TWA	52 mg/m ³
		10 ppm

Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances Workers Compensation Board, as amended

Components	Type	Value
Permethrin (CAS 52645-53-1)	TWA	5 mg/m ³

Constituents	Type	Value
Naphthalene (CAS 91-20-3)	TWA	10 ppm

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act), as amended

Components	Type	Value
Permethrin (CAS 52645-53-1)	TWA	5 mg/m ³

Constituents	Type	Value
Naphthalene (CAS 91-20-3)	TWA	10 ppm

Canada. New Brunswick OELs: Threshold Limit Values (TLVs) Based on the 1991 and 1997 ACGIH TLVs and BEIs Publication (New Brunswick Regulation 91-191)

Components	Type	Value
Permethrin (CAS 52645-53-1)	TWA	5 mg/m ³

Constituents	Type	Value
Naphthalene (CAS 91-20-3)	STEL	79 mg/m ³
		15 ppm
	TWA	52 mg/m ³
		10 ppm

Canada. Ontario OELs (Regulation 833, Control of Exposure to Biological or Chemical Agents), as amended

Components	Type	Value
Permethrin (CAS 52645-53-1)	TWA	5 mg/m ³

Constituents	Type	Value
Naphthalene (CAS 91-20-3)	TWA	10 ppm

Canada. Quebec OELs (Regulation respecting occupational health and safety, v. S-2.1, r.13), as amended

Components	Type	Value
Permethrin (CAS 52645-53-1)	TWA	5 mg/m ³

Canada. Quebec OELs (Regulation respecting occupational health and safety, v. S-2.1, r.13), as amended

Constituents	Type	Value
Naphthalene (CAS 91-20-3)	TWA	10 ppm

Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996; Table 21), as amended

Components	Type	Value	Form
Permethrin (CAS 52645-53-1)	15 minute	10 mg/m3	
Solvent naphtha (petroleum), heavy aromatic (CAS 64742-94-5)	15 minute	250 mg/m3	Vapor.

Constituents	Type	Value
Naphthalene (CAS 91-20-3)	15 minute	15 ppm
	8 hour	10 ppm

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

Exposure guidelines**Canada - Alberta OELs: Skin designation**

Naphthalene (CAS 91-20-3) Can be absorbed through the skin.
 Solvent naphtha (petroleum), heavy aromatic (CAS 64742-94-5) Can be absorbed through the skin.

Canada - British Columbia OELs: Skin designation

Naphthalene (CAS 91-20-3) Can be absorbed through the skin.

Canada - Manitoba OELs: Skin designation

Naphthalene (CAS 91-20-3) Danger of cutaneous absorption

Canada - Ontario OELs: Skin designation

Naphthalene (CAS 91-20-3) Can be absorbed through the skin.

Canada - Quebec OELs: Skin designation

Naphthalene (CAS 91-20-3) Can be absorbed through the skin.

Canada - Saskatchewan OELs: Can be absorbed through the skin.

Naphthalene (CAS 91-20-3) Can be absorbed through the skin.
 Solvent naphtha (petroleum), heavy aromatic (CAS 64742-94-5) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Naphthalene (CAS 91-20-3) Danger of cutaneous absorption

Appropriate engineering controls

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.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear appropriate chemical resistant clothing.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Thermal hazards

Not available.

General hygiene considerations

Observe any medical surveillance requirements. When using do not smoke. Keep away from food and drink. 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 Clear colorless to straw colored liquid

Physical state Liquid.

Form Emulsifiable Concentrate (EC).

Color Clear colorless to straw colored

Odor Aromatic solvent.

Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	<32 °F (<0 °C)
Initial boiling point and boiling range	>366.8 °F (>186 °C)
Flash point	>150.8 °F (>66 °C) Setaflash
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	0.7 % estimated
Explosive limit - upper (%)	5 % estimated
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	1.04
Relative density temperature	68 °F (20 °C)
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	The data presented in this section are typical values and should not be construed as a specification.
Bulk density	8.68 lb/gal
Explosive properties	Not explosive.
Flammability class	Combustible IIIA
Oxidizing properties	Not oxidizing.

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.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	This product may emit hazardous fumes of hydrogen chloride, carbon oxides, and unidentified organic compounds when it is heated excessively or burned. WEAR SELF-CONTAINED BREATHING APPARATUS when these conditions are present.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Harmful if inhaled.
Skin contact	May cause an allergic skin reaction.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Harmful if swallowed. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics Aspiration may cause pulmonary edema and pneumonitis. May cause an allergic skin reaction.

Information on toxicological effects

Acute toxicity Harmful if swallowed. Harmful if inhaled.

Product	Species	Test Results
AMBUSH 500 EC		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg
Inhalation		
<i>Mist</i>		
LC50	Rat	> 2.26 mg/l, 4 Hours
Oral		
LD50	Rat	932 mg/kg
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.	
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.	
Respiratory or skin sensitization		
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	May cause an allergic skin reaction.	
Germ cell mutagenicity	Not classified.	
Carcinogenicity	Suspected of causing cancer.	
ACGIH Carcinogens		
Naphthalene (CAS 91-20-3)	A3 Confirmed animal carcinogen with unknown relevance to humans.	
Permethrin (CAS 52645-53-1)	A4 Not classifiable as a human carcinogen.	
Canada - Manitoba OELs: carcinogenicity		
Naphthalene (CAS 91-20-3)	Confirmed animal carcinogen with unknown relevance to humans.	
Permethrin (CAS 52645-53-1)	Not classifiable as a human carcinogen.	
Canada - Quebec OELs: Carcinogen category		
Naphthalene (CAS 91-20-3)	Detected carcinogenic effect in animals.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Naphthalene (CAS 91-20-3)	2B Possibly carcinogenic to humans.	
Permethrin (CAS 52645-53-1)	3 Not classifiable as to carcinogenicity to humans.	
US. National Toxicology Program (NTP) Report on Carcinogens		
Naphthalene (CAS 91-20-3)	Known To Be Human Carcinogen. Reasonably Anticipated to be a Human Carcinogen.	
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.	
Specific target organ toxicity - single exposure	Not classified.	
Specific target organ toxicity - repeated exposure	Not classified.	
Aspiration hazard	May be fatal if swallowed and enters airways.	
Chronic effects	Prolonged inhalation may be harmful.	
12. Ecological information		
Ecotoxicity	Very toxic to aquatic life with long lasting effects.	
Components	Species	Test Results
Permethrin (CAS 52645-53-1)		
Aquatic		
<i>Acute</i>		
Crustacea	EC50	Water flea (Daphnia magna) 0.0006 - 0.0025 mg/l, 48 hours
Fish	LC50	Channel catfish (Ictalurus punctatus) 0.0011 mg/l, 96 hours
Persistence and degradability	Not persistent in soil or water.	
Bioaccumulative potential		
Partition coefficient n-octanol / water (log Kow)		
Permethrin	6.15	
Mobility in soil	Immobile and not expected to reach groundwater.	

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of container and residues in accordance with all applicable 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).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

TDG

UN number UN3082
UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Permethrin), MARINE POLLUTANT

Transport hazard class(es)

Class 9
Subsidiary risk -
Packing group III
Environmental hazards Yes
Special precautions for user Not assigned.

IATA

UN number UN3082
UN proper shipping name Environmentally hazardous substance, liquid, n.o.s. (Permethrin)
Transport hazard class(es)

Class 9
Subsidiary risk -
Packing group III
Environmental hazards Yes
ERG Code 9L
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Other information

Passenger and cargo aircraft Allowed with restrictions.
Cargo aircraft only Allowed with restrictions.

IMDG

UN number UN3082
UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Permethrin), MARINE POLLUTANT

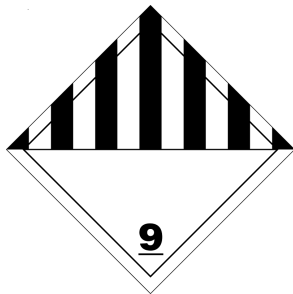
Transport hazard class(es)

Class 9
Subsidiary risk -
Packing group III
Environmental hazards

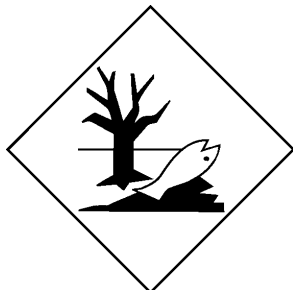
Marine pollutant Yes
EmS F-A, S-F
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

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

IATA; IMDG; TDG



Marine pollutant



General information

TDG Regulated Marine Pollutant. Marine Pollutants Exemption (TDG 1.45.1) applies to this product.
IMDG Regulated Marine Pollutant.

15. Regulatory information

Canadian regulations

CANADIAN REGULATIONS: This product is registered under the Pest Control Product Act of Canada. It is a violation of Canadian Law to use this product in any manner inconsistent with its labeling. Read and follow all label directions. This product has been classified according to the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

PCP:
14882

PRECAUTIONS:

Keep Out of Reach Of Children. Avoid splashing concentrate in eyes, on skin or on clothing. When applying this product in enclosed areas or with equipment capable of producing respirable spray droplets (less than 10 microns in size), an adequate respirator should be worn.

Read the label, authorized under the Pest Control Products Act, prior to using or handling the pest control product.

There are Canada-specific environmental requirements for handling, use, and disposal of this pest control product that are indicated on the label.

Controlled Drugs and Substances Act

Not regulated.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Ontario. Toxic Substances. Toxic Reduction Act, 2009. Regulation 455/09 (July 1, 2011)

Naphthalene (CAS 91-20-3)

Precursor Control Regulations

Not regulated.

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

Naphthalene (CAS 91-20-3)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply 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

Issue date Oct-31-2016

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Version # 3.0

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Revision information

This document has undergone significant changes and should be reviewed in its entirety.