

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Trade name : Starbar E-Pro Adulticide Spray
 Synonyms : 100209011, EPA Reg. No.: 89459-66, Permethrin E-Pro Termiticide/Insecticide

1.2. Recommended use and restrictions on use

Recommended use : Insecticide.
 Restrictions on use : Avoid contact with eyes, skin and clothing. Avoid inhalation of vapors or fumes. Do NOT take internally. Keep out of reach of children and domestic animals.

1.3. Supplier

Central Garden & Pet
 1501 E. Woodfield Road, Suite 200W
 Schaumburg, IL 60173 - United States
 www.starbarproducts.com

1.4. Emergency telephone number

Emergency number : 1-800-347-8272
 1-800-424-9300 - CHEMTREC
 1-703-527-3887 - CHEMTREC - Outside North America - Collect Calls Accepted

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flammable liquids Category 3	Flammable liquid and vapor
Acute toxicity (oral) Category 4	Harmful if swallowed
Acute toxicity (inhalation) Category 4	Harmful if inhaled
Serious eye damage/eye irritation Category 2A	Causes serious eye irritation
Carcinogenicity Category 2	Suspected of causing cancer
Specific target organ toxicity (single exposure) Category 1	Causes damage to organs
Specific target organ toxicity — Single exposure, Category 3, Narcosis	May cause drowsiness or dizziness
Aspiration hazard Category 1	May be fatal if swallowed and enters airways

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

Flammable liquid and vapor
 Harmful if swallowed or if inhaled
 May be fatal if swallowed and enters airways
 Causes serious eye irritation
 May cause drowsiness or dizziness
 Suspected of causing cancer
 Causes damage to organs (nervous system)

Precautionary statements (GHS US) :

Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 Keep container tightly closed.
 In case of fire, use water fog, CO₂, foam or dry powder to extinguish.
 Ground/Bond container and receiving equipment.
 Use explosion-proof electrical/ventilating/lighting equipment.
 Use only non-sparking tools.

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Take precautionary measures against static discharge.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash hands, forearms and face thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
If swallowed: Immediately call a poison center or doctor.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If exposed: Call a poison center/doctor.
Call a poison center or doctor if you feel unwell.
Rinse mouth.
Do NOT induce vomiting.
If eye irritation persists: Get medical advice/attention.
Store in a well-ventilated place. Keep cool.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. This product is extremely toxic to aquatic organisms, including fish and invertebrates. Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Permethrin	(CAS-No.) 52645-53-1	36.8
Acetin, tri-	(CAS-No.) 102-76-1	27.39
Solvent naphtha	(CAS-No.) 64742-94-5	21.9 – 22.5
Naphthalene	(CAS-No.) 91-20-3	< 0.34
Glycols, polyethylenepolypropylene, monobutyl ether (nonionic)	(CAS-No.) 9038-95-3	> 3.06
Non-hazardous and/or does not meet criteria for classification	(CAS-No.) N/A	Balance

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.
First-aid measures after inhalation : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor/physician if you feel unwell.
First-aid measures after skin contact : IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice and attention.
First-aid measures after ingestion : IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Call a physician immediately. Rinse mouth. Do NOT induce vomiting unless directed to do so by medical personnel.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : Harmful if inhaled. Permethrin affects nervous system. Symptoms of overexposure to permethrin include diarrhea, salivation, tremors, convulsions, hyperactivity and hypersensitivity. Causes drowsiness and dizziness.
Symptoms/effects after eye contact : Causes serious eye irritation.
Symptoms/effects after ingestion : Harmful if swallowed. Permethrin effects the nervous system. Aspiration Hazard - may be fatal if swallowed and enters airways.
Chronic symptoms : Suspected of causing cancer.

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4.3. Immediate medical attention and special treatment, if necessary

Contains petroleum distillate vomiting may cause aspiration pneumonia. Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media : Avoid heavy hose streams.

5.2. Specific hazards arising from the chemical

Fire hazard : Combustible liquid. Containers may explode when heated.
Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Do not allow fire fighting water to escape into waterways or sewers. Evacuate area. Move containers away from the fire area if this can be done without risk. Ventilate closed spaces before entering. Do not breathe gas/fumes/vapor/spray.
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. For further information refer to section 8: Exposure controls/personal protection.
Emergency procedures : Evacuate unnecessary personnel. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if safe to do so. Ventilate area. Do NOT wash away into sewer. Avoid release to the environment. Wear appropriate personal protective equipment, avoid direct contact.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Absorb spills with an inert material, clay granules or other inert absorbent material and put in container for disposal. Do not flush to sewer or allow to enter waterways. Wear appropriate personal protective equipment, avoid direct contact. All equipment used when handling the product must be grounded.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not breathe dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid breathing fumes. Keep away from sources of ignition - No smoking.
Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool. Avoid excess heat. Keep container tightly closed. Keep only in original container. Avoid extreme temperatures. Do not store below 32°F. Do not store near heat or open flame. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F. Keep away from ignition sources.
Incompatible materials : Strong oxidizers. Heat, sparks, open flame.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Naphthalene (91-20-3)		
ACGIH	ACGIH OEL TWA [ppm]	10 ppm

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Naphthalene (91-20-3)		
ACGIH	Remark (ACGIH)	Hematologic eff; URT & eye irr; Skin; A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans: The agent is carcinogenic in experimental animals at a relatively high dose, by route(s) of administration, at site(s), of histologic type(s), or by mechanism(s) that may not be relevant to worker exposure. Available epidemiologic studies do not confirm an increased risk of cancer in exposed humans. Available evidence does not suggest that the agent is likely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure)
OSHA	OSHA PEL TWA [1]	50 mg/m ³
OSHA	OSHA PEL TWA [2]	10 ppm
IDLH	IDLH [ppm]	250 ppm
NIOSH	NIOSH REL TWA	50 mg/m ³
NIOSH	NIOSH REL TWA [ppm]	10 ppm
NIOSH	NIOSH REL STEL	75 mg/m ³
NIOSH	NIOSH REL STEL [ppm]	15 ppm

8.2. Appropriate engineering controls

- Appropriate engineering controls : Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.
- Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

See product label for specific PPE instructions.

Hand protection:

Wear chemical resistant gloves made out of barrier laminate or Viton

Eye protection:

Safety glasses

Skin and body protection:

Wear long-sleeved shirt, long pants, socks and shoes

Respiratory protection:

When working in a non-ventilated space all users must wear a NIOSH approved respirator with an organic-vapor (OV) cartridge with a combination R or P filter, P filter with NIOSH approval number prefix TC-84A; a NIOSH approved gas mask with a canister, with NIOSH approval number prefix TC-14G; or a NIOSH approved powered air-purifying respirator with organic vapor (OV) cartridge and combination HE filter, with NIOSH approval number prefix TC-23C



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Appearance : Amber colored liquid
- Color : Amber
- Odor : Faint mild petroleum
- Odor threshold : No data available
- pH : 4.8 to 5 @ 20 °C(68 °F)

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Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 47.78 °C (118 °F)
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 1.02
Solubility	: Insoluble
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: Not explosive
Oxidizing properties	: Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Hazardous polymerization will not occur.

10.4. Conditions to avoid

Avoid extreme temperatures. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Hazardous decomposition may occur when heated producing oxides of carbon and nitrogen, volatile hydrocarbon vapors.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Permethrin (52645-53-1)	
LD50 oral rat	500 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 Inhalation - Rat	2.65 mg/l/4h
Naphthalene (91-20-3)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicity Program (NTP) Status	Evidence of Carcinogenicity, Reasonably anticipated to be Human Carcinogen
In OSHA Hazard Communication Carcinogen list?	Yes

GHS-US Properties	Classification
Acute toxicity (oral)	Harmful if swallowed.
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Harmful if inhaled.
Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Causes serious eye irritation.

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Respiratory or skin sensitization	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Suspected of causing cancer.
Reproductive toxicity	Not classified
Specific target organ toxicity (single exposure)	Causes damage to organs. May cause drowsiness or dizziness.
Specific target organ toxicity (repeated exposure)	Not classified
Aspiration hazard	May be fatal if swallowed and enters airways.

Potential health effects

Inhalation

Acute : Harmful if inhaled. Permethrin affects nervous system. Symptoms of overexposure to permethrin include diarrhea, salivation, tremors, convulsions, hyperactivity and hypersensitivity. May cause drowsiness and dizziness.

Skin

Acute : Contact with permethrin may cause reversible skin sensations (paresthesia) which may include numbing, burning or tingling.

Eye

Acute : Causes serious eye irritation.

Ingestion

Acute : Aspiration hazard - small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema. Harmful if ingested. Permethrin affects nervous system. Symptoms of overexposure to permethrin include diarrhea, salivation, tremors, convulsions, hyperactivity and hypersensitivity.

Mutagenicity : Permethrin was not mutagenic in a battery of in vitro and in vivo tests.

Carcinogenicity : Permethrin is not classified as carcinogen by NTP, IARC and OSHA. Naphthalene is listed as a suspected human carcinogen by NTP and IARC.

Reproductive Effects : Permethrin does not cause birth defects or adverse effects on reproduction.

SECTION 12: Ecological information

12.1. Toxicity

Permethrin (52645-53-1)	
LC50 Acute fish 1	0.00079 mg/l (Exposure time: 96h - Blue gill)
LC50 Acute fish 2	0.0022 mg/l (Exposure time: 96h - Atlantic silverside)
LC50 Acute crustacea 1	0.000019 mg/l (Exposure time: 96h - Mysid shrimp)
LC50 Acute crustacea 2	0.0001 mg/l (Hexagenia bilineata)
EC50 - Crustacea [1]	0.00043 mg/l (48 h, Daphnia magna, Literature study)
NOEC Chronic fish 1	0.0003 mg/l (Fathead minnow)
NOEC Chronic fish 2	0.00083 mg/l (Sheepshead minnow)
NOEC Chronic crustacea 1	0.000039 mg/l (Daphnia magna)
NOEC Chronic crustacea 2	0.000011 mg/l (Mysid shrimp)

12.2. Persistence and degradability

Permethrin (52645-53-1)	
Persistence and degradability	Permethrin: not rapidly biodegradable.

12.3. Bioaccumulative potential

Permethrin (52645-53-1)	
Bioaccumulative potential	Permethrin: Bioconcentration factor (BCF) 300; Does not bioaccumulate.

12.4. Mobility in soil

Permethrin (52645-53-1)	
Mobility in soil	Permethrin: Immobile in soil

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12.5. Other adverse effects

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Ecological Fate	This product is extremely toxic to aquatic organisms, including fish and invertebrates. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds.
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SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

SECTION 14: Transport information

	UN number	Proper Shipping Name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	NA1993	Bulk Packaging only: Combustible liquid, n.o.s. (Petroleum distillates)	Combustible liquid	III	Not applicable
IMDG	UN1993	Flammable liquids, n.o.s. (Petroleum distillates) Marine Pollutant (Permethrin)	3	III	Marine pollutant
IATA	UN1993	Flammable liquids, n.o.s. (Petroleum distillates)	3	III	Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Permethrin (52645-53-1)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory
Subject to reporting requirements of United States SARA Section 313

SARA Section 313 - Emission Reporting	1 %
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Acetin, tri- (102-76-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Solvent naphtha (64742-94-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Naphthalene (91-20-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Subject to reporting requirements of United States SARA Section 313

CERCLA RQ	100 lb
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SARA Section 313 - Emission Reporting	0.1 %
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Glycols, polyethylenepolypropylene, monobutyl ether (nonionic) (9038-95-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
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EPA Labelling

EPA Registration Number	89459-66
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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.

FIFRA Hazard statements	Caution
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FIFRA Precautionary statements	KEEP OUT OF REACH OF CHILDREN.
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FIFRA Hazards to Humans and Domestic Animals	Harmful if swallowed, inhaled, or absorbed through the skin. Causes moderate eye irritation. Do not breathe dusts, vapors, or spray mist. Avoid contact with skin, eyes or clothing. Do not use on puppies less than 12 weeks of age. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash before reuse. DO NOT USE ON CATS OR KITTENS. May be toxic or potentially fatal if applied to or ingested by cats. Accidental application to cats and/or grooming a recently treated dog may result in tremors and/or uncoordinated muscle movements. If this occurs, immediate veterinary care should be provided.
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FIFRA First aid	IF SWALLOWED: Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person. IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice. IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice. Note to Physician: Contains petroleum distillate - vomiting may cause aspiration pneumonia.
FIFRA Environmental hazards	This product is highly toxic to bees exposed to direct treatment or residues on crop or weeds. Do not apply this product or allow it to drift to crops or weeds on which bees are foraging. Additional information may be obtained from your Cooperative Extension Service. This product is extremely toxic to aquatic organisms, including fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water by cleaning of equipment or disposal of equipment washwaters. Do not apply when weather conditions favor drift from treated areas. Do not discharge effluent containing this product into lakes, 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. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.
FIFRA Physical hazards	Do not use or store near heat or open flame

15.2. US State regulations

Naphthalene (91-20-3)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	5.8 µg/day

SECTION 16: Other information

Issue date : 26 February 2016
Revision date : 22 July 2021
Supersedes : 28 May 2020

Indication of changes:
Revised Sec. 1: Material number(s).

SDS US (GHS HazCom 2012) - CGP

The information and statements herein are believed to be reliable but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE.