

**SAFETY DATA SHEET
SPRAY-KILL 5**

Revision date: 2022-07-28

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name SPRAY-KILL 5 FOR FRUIT FLY
Active Ingredient(s) Cypermethrin, Piperonyl Butoxide, Tetrachlorvinphos
Chemical Family Pyrethroid Pesticide

Registration holder / Registrasiehouer:

**PROTEK, a division of / a divisie van
PE-BEE AGRI (PTY) LTD / (EDMS) BPK**
Co. Reg. No./Mpy. Reg. Nr.: 2005/036308/07
P.O. Box/Posbus 72, Heidelberg, 1438
Tel: (011) 812 9800 or/of
0861 PROTEK (0861 77 68 35)
www.protek.co.za

Emergency telephone number

24 HR EMERGENCY NUMBERS
Griffon Poison Information Centre +27 82 446 8946
24 Hr Transport / Spill emergency no: (Hazcall24) +27 86 044 4411

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

GHS Label elements, including precautionary statements



EMERGENCY OVERVIEW

The product contains no substances which at their given concentration, are considered to be hazardous to health

Hazards not otherwise classified (HNOC)

No hazards not otherwise classified were identified.

Other Information

Very toxic to aquatic life with long lasting effects.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Family	Pyrethroid Pesticide.	
Chemical name	CAS-No	G/LT
Piperonyl butoxide	51-03-6	10 g/lit
Cypermethrin (F2700)	52315-07-8	2g/lit
Tetrachlorvinphos	22248-79-9	20g/lit
Other Inerts		>70%

Synonyms are provided in Section 1.

4. FIRST AID MEASURES

Description of first aid measures:

In case of inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention immediately.

In case of skin contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

In case of eye contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

In case of ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Most important symptoms and effects, both acute and delayed:

Anticipated acute effects:

Harmful if swallowed.
May be harmful if inhaled.
Causes serious eye irritation.

Anticipated delayed effects:

None known.

Advice to physician:

There is no specific antidote available. Treat symptomatically.

Indication of any immediate medical attention and special treatment needed:

Treat symptomatically

5. FIRE-FIGHTING MEASURES

Extinguisher media:

Suitable extinguisher media: Carbon dioxide, foam dry chemical and water fog.

SMALL FIRE: Extinguish small fires with carbon dioxide, dry powder, or alcohol-resistant foam.

LARGE FIRE: Water spray can be used for larger fires or cooling of unaffected stock but avoid the accumulation of polluted run-off from the site.

Unsuitable extinguishing media: Do not use high volume water jet, due to contamination risk.

Special hazards arising from the mixture:

During a fire, irritating and possibly toxic gasses may be generated by thermal decomposition or combustion. Closed container may explode if pressure builds up. Toxic or irritating gas may be generated during fire.

Advice for fire-fighters:

Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Be sure to use an approved/certified respirator or equivalent.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel: Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to Section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

For emergency responders: Use an approved/certified respirator or equivalent, isolate the spill area and limit the access to emergency responders only. Avoid any contact with spilled material, use adequate protective clothes and gloves.

Environmental precautions:

Cover drains. Prevent from entering soil, ditches, sewers, waterways and/or groundwater.

Methods for containment and cleaning up:

For small spills Contain spilled material if possible. Collect in suitable and properly labelled containers. Absorb with materials such as: sand, earth, vermiculite or diatomaceous earth.

For large spills Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g., sand, earth, vermiculite or diatomaceous earth and place in well labelled container for disposal according to local regulations.

Reference to other sections:

See section 7 for information on safe handling.

See section 8 for information on personal protection equipment. See section 13 for information on disposal.

Additional information:

None.

7. HANDLING AND STORAGE

Handling	Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.
Storage	Keep in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Keep out of reach of children and animals. Keep/store only in original container.
Incompatible products	No information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters: NONE KNOWN

Legend

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: NIOSH - National Institute for Occupational Safety and Health

Exposure control:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. A Risk Assessment should be conducted before handling is to commence to determine specific exposure control.

Appropriate engineering controls: Provide exhaust ventilation or other engineering controls. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Individual protection measures, such as personal protective equipment:

Eye/face protection: Use safety glasses. If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles.

Hand protection: Use chemical resistant gloves. Examples of preferred glove barrier materials include Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, Polyvinyl alcohol, Polyvinyl chloride.

Body protection: Appropriate impervious clothing is required to prevent skin contact with the product.

Respiratory protection: Respiratory protection is required; use an approved air-purifying respirator.

Environmental exposure controls: Prevent product from entry into sewers and water courses.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Transparent emulsifiable liquid
Physical State	Liquid
Color	Reddish
Odor	Slight solvent odor
pH	Neutral
Melting point/freezing point	Not applicable
Boiling Point/Range	No information available
Flash point	Not applicable
Evaporation Rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	No information available
Vapor density	No information available
Density	0.95 g/mL
Specific gravity	No information available
Water solubility	Emulsify in water No information available
Bulk density	1.0

10. STABILITY AND REACTIVITY

Reactivity: The product is stable under normal conditions.

Chemical stability:

Stable under normal storage conditions for 2 years.

Possibility of hazardous reactions:

Slightly reactive to reactive with reducing agents, alkalis.

Conditions to avoid:

Reducing agents and alkalis.

Incompatible materials:

Reducing agents and alkalis.

Hazardous decomposition products: No information available.

11. TOXICOLOGICAL INFORMATION

Product Information

LD50 Oral	> 5,000 mg/kg (rat)
LD50 Dermal	> 2,000 mg/kg (rat)
LC50 Inhalation	Cypermethrin: 3.56 mg/L 4 hr (rat)
Serious eye damage/eye irritation	Slightly or non-irritating (rabbit).
Skin corrosion/irritation	Moderately irritating.
Sensitization	Non-sensitizer

Information on toxicological effects

Symptoms Large doses of Cypermethrin, ingested by laboratory animals, may produce signs of toxicity including tremors, incoordination, convulsions, staggered gait, and oral discharge. Large oral doses of piperonyl butoxide ether may cause vomiting and diarrhea, while repeated skin contact may cause slight irritation. Clinical signs of piperonyl butoxide poisoning include nausea, vomiting, diarrhea, loss of appetite, and mild CNS depression. Reported effects on the blood include pancytopenia, thrombocytopenia, leukopenia, polycythemia, and anemias.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic toxicity	Cypermethrin: Long-term exposure caused neurotoxicity (body tremors, decreased motor activity), decreased body weight and increased liver weight.
Mutagenicity	Piperonyl Butoxide, Cypermethrin: Not genotoxic in laboratory studies
Carcinogenicity	Piperonyl Butoxide: No evidence of carcinogenicity from animal studies. Cypermethrin caused an increase in benign lung tumors in mice, but not in rats. EPA has classified cypermethrin as a possible human carcinogen based on this information, but does not regulate based on its low cancer risk.
Neurological effects	Cypermethrin: Causes neurotoxicity (tremors and decreased motor activity) following acute, subchronic or chronic exposure.
Reproductive toxicity	Piperonyl Butoxide, Cypermethrin: No toxicity to reproduction in animal studies.
Developmental toxicity	Piperonyl Butoxide, Cypermethrin: Not teratogenic in animal studies.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Target organ effects	Cypermethrin: Central Nervous System, blood. Mice fed 0.3 or 0.9% piperonyl butoxide in the diet for 20 days had increased liver weight and other signs of liver toxicity. Male rats given up to 2.4% of piperonyl butoxide in the diet for up to 12 weeks had clinical and histologic signs of liver damage; the highest dose group showed preneoplastic changes, including enlargement of hepatocyte nuclei and multinucleated cells. Kidney damage was also seen.
Neurological effects	Cypermethrin: Causes neurotoxicity (tremors and decreased motor activity) following acute, subchronic or chronic exposure.
Aspiration hazard	No information available.

Chemical name	ACGIH	IARC	NTP	OSHA
Piperonyl butoxide 51-03-6		Group 3		
Cypermethrin (F2700) 52315-07-8		Group 2A		
Tetrachlorvinphos		GROUP 1		

12. ECOLOGICAL INFORMATION

Ecotoxicity

Piperonyl butoxide (51-03-6)

Active Ingredient(s)	Duration	Species	Value	Units
Piperonyl Butoxide	LC50	Fish	3.94	ppm
	LD50	Bee	25	µg/bee
	LD50	Bobwhite quail	>2250	mg/kg
	LD50	Mallard duck	>5620	ppm

Cypermethrin (F2700) (52315-07-8)

Active Ingredient(s)	Duration	Species	Value	Units
Cypermethrin	48 h EC50	Crustacea	0.14	µg/L
	96 h LC50	Fish	0.69	µg/L
	72 h EC50	Algae	>1	mg/L
	21 d NOEC	Crustacea	0.01	µg/L
	21 d NOEC	Fish	0.015	µg/L

Tetrachlorvinphos (22248-79-9)

Active Ingredient(s)	Duration	Species	Value	Units
Tetrachlorvinphos	LC50	Fish	0.3 – 6.0	Mg/lt
	LD50	Bee	1.37	µg/bee
	LD50	Pheasant	>2000	mg/kg
	LD50	Mallard duck	>2000	Mg/kg

Persistence and degradability

Cypermethrin: Non-persistent. Readily hydrolyzed. Not readily biodegradable.

Bioaccumulation

Cypermethrin: The substance does not have a potential for bioconcentration.

Mobility

Cypermethrin: Immobile; Not expected to reach groundwater.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Consider suitable waste recycling, re-use or recovery options. Dispose of in accordance with municipal, provincial and national regulations. Waste Classification and Management Regulations (GN 634 of 2013). Dispose and or manage in accordance with the requirements contained in R634 Waste Classification & Management Regulations, R635 National Norms & Standards for the Assessment of Waste for Landfill Disposal and R636 National Norms & Standards for Disposal of Waste to Landfill.

Product/ packaging disposal:

Treat as hazardous waste and dispose of in accordance with municipal, provincial and national regulations.

14. TRANSPORT INFORMATION

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN-Number	3082	3082	3082
UN Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, liquid, N.O.S. (SPRAY-KILL 5)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, liquid, N.O.S. (SPRAY-KILL 5)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, liquid, N.O.S. (SPRAY-KILL 5)
Transport hazard class:	9	9	9
Packaging group:	III	III	III
Marine pollutant:	yes	yes	yes
Special precautions for user:	Not required	Not required	Not required
Transport in bulk according to MARPOL 73/78 Annex II and the IBC code	Not required	Not required	Not required

Inland waterways: Not required.

Emergency response information: No information.

15. REGULATORY INFORMATION**Safety, health and environmental regulations/legislation for the mixture:**

Relevant information regarding authorization: Occupational Health and Safety Act 1993. Regulation for Hazardous Chemical Agents, 2021. UN Recommendations on the Transport of Dangerous Goods Model Regulations Rev. 21 (2019), Globally Harmonized System of Classification and Labelling of Chemicals (GHS) Rev 9, 2021.

Relevant information regarding restrictions:

EU regulations: Regulation EC 1272/2008 [EU-GHS/CLP].

Other National regulations: National Road Traffic Act, 1996 (ACT NO. 93 of 1996).

SANS 10228:2012- The identification and classification of dangerous goods for transport by road and rail modes. National Environmental Management: Waste Act 59 of 2008.

Chemical Safety Assessment carried out? No

16. OTHER INFORMATION**Indication of changes:**

All sections.

Relevant H statements (number and full text):

Aquatic chronic 1: Hazardous to the aquatic Environment (Chronic 1)

H302: Harmful if swallowed.

H318: Causes serious eye damage.

Training instructions: No special training required. Read label of product.

Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

Notice to readers:

Employers should use this information only as a supplement to other information gathered by them and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees.

This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.