



Material Safety Data Sheet

PYRENONE® CROP SPRAY

MSDS Number: 102000004845

MSDS Version 2.1

Revision Date: 04/09/2008

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name PYRENONE® CROP SPRAY
MSDS Number 102000004845
EPA Registration No. 432-1033

Bayer Environmental Science
 2 T.W. Alexander Drive
 Research Triangle PK, NC 27709
 USA

For MEDICAL, TRANSPORTATION or other EMERGENCY call: 1-800-334-7577 (24 hours/day)
 For Product Information call: 1-800-331-2867

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Pyrethrins including cinerins	8003-34-7	6.00
Piperonyl butoxide	51-03-6	60.00
Butoxypolyethylene-/propylene glycol	9038-95-3	2.48
Distillates (petroleum), hydrotreated light	64742-47-8	
Surfactant blend in butan-1-ol and 1,2-propanediol		

SECTION 3. HAZARDS IDENTIFICATION

NOTE: Please refer to Section 11 for detailed toxicological information.

Emergency Overview Caution! Harmful if swallowed, inhaled or absorbed through the skin. Avoid contact with skin, eyes and clothing. Avoid breathing spray mist.

Physical State liquid

Odor slightly sweetish

Appearance dark amber

Routes of Exposure Ingestion, Inhalation, Eye contact, Skin Absorption

Immediate Effects

Eye May cause eye irritation. Avoid contact with eyes.

Skin May cause skin irritation. Harmful if absorbed through skin. Avoid contact with skin and clothing.



Material Safety Data Sheet

PYRENONE® CROP SPRAY

MSDS Number: 102000004845
MSDS Version 2.1

SECTION 5. FIRE FIGHTING MEASURES

Flash point	76.7 °C / 170.1 °F
Suitable Extinguishing Media	Carbon dioxide (CO ₂), Dry chemical, Foam, Water
Fire Fighting Instructions	<p>Keep out of smoke. Fight fire from upwind position. Cool closed containers/ tanks exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Whenever possible, contain fire-fighting water by diking area with sand or earth.</p> <p>Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing. In the event of fire and/or explosion do not breathe fumes.</p>

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Remove all sources of ignition. Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.
Methods for Cleaning Up	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.
Additional Advice	Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal.

SECTION 7. HANDLING AND STORAGE

Handling Procedures	<p>Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation. Handle and open container in a manner as to prevent spillage.</p> <p>Keep away from heat and sources of ignition.</p>
Storing Procedures	Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.
Work/Hygienic Procedures	<p>Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.</p> <p>Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove</p>



Material Safety Data Sheet
PYRENONE® CROP SPRAY

MSDS Number: 102000004845
MSDS Version 2.1

Water solubility emulsifiable

SECTION 10. STABILITY AND REACTIVITY

Conditions to Avoid Extremes of temperature and direct sunlight.

Incompatibility Strong oxidizing agents
 Acids

Hazardous Reactions Stable under normal conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity studies have been bridged from a similar formulation containing similar percentages of the active ingredients, pyrethrin (6%) and piperonyl butoxide (60%). The non-acute information pertains to the technical-grade active ingredients.

Acute Oral Toxicity male rat: LD50: 4,500 mg/kg
 female rat: LD50: 4,900 mg/kg

Acute Dermal Toxicity rabbit: LD50: > 2,000 mg/kg

Acute Inhalation Toxicity rat: LC50: > 5.3 mg/l
 Exposure time: 4 h
 Determined in the form of liquid aerosol.

 rat: LC50: > 20 mg/l
 Exposure time: 1 h
 Determined in the form of liquid aerosol.
 Extrapolated from the 4 hr LC50.

Skin Irritation rabbit: Moderate skin irritation.

Eye Irritation rabbit: Moderate eye irritation.

Sensitization guinea pig: Non-sensitizing.

Chronic Toxicity Pyrethrin caused effects in the liver, lung, thyroid and/or nervous system in chronic studies in mice, rats and dogs.

 Piperonyl butoxide caused decreased body weights and/or increased organ weights (liver, kidney, adrenal) in chronic studies in rats and dogs.

Assessment Carcinogenicity

Pyrethrin is classified by EPA as "Suggestive Evidence of Carcinogenicity, but Not Sufficient to Assess Human Carcinogenic Potential" based on the occurrence of benign liver tumors only in female rats. Therefore, an assessment of cancer risk to humans from potential exposure to pyrethrins is not required.



Material Safety Data Sheet

PYRENONE® 25-5 PUBLIC HEALTH INSECTICIDE

MSDS Number: 102000004841
MSDS Version 3.1

Piperonyl butoxide
OSHA
None.

51-03-6

Overall evaluation: 3

Reproductive toxicity

REPRODUCTION:

Pyrethrin was not a reproductive toxicant in a multi-generation rat study.

Piperonyl butoxide was not a reproductive toxicant in a two-generation study in rats.

DEVELOPMENTAL TOXICITY:

Pyrethrin was not a developmental toxicant in rats and rabbits.

Piperonyl butoxide did not cause developmental, embryotoxic or teratogenic effects in developmental toxicity studies in rats and rabbits.

Neurotoxicity

Pyrethrin caused neurobehavioral effects (e.g., tremors) in rats following acute and repeated oral exposure.

Piperonyl butoxide did not demonstrate the potential to cause neurotoxicity in standard toxicity studies submitted to the Agency. EPA has concluded that there is not a concern for neurotoxicity resulting from exposure to piperonyl butoxide.

Mutagenicity

Pyrethrin was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Piperonyl butoxide does not have significant potential for mutagenicity based on sufficient evidence.

SECTION 12. ECOLOGICAL INFORMATION

Environmental precautions

Do not apply when weather conditions favor runoff or drift. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Apply this product as specified on the label.

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance

Pesticide, spray mixture or rinse water that cannot be used according to label instructions may be disposed of on site or at an approved waste disposal facility.

Container Disposal

Do not re-use empty containers. Triple rinse containers. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke. Follow advice on product label and/or leaflet.



Material Safety Data Sheet
PYRENONE® CROP SPRAY

MSDS Number: 102000004845
 MSDS Version 2.1

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance Do not contaminate water, food, or feed by disposal. Pesticide, spray mixture or rinse water that cannot be used according to label instructions may be disposed of on site or at an approved waste disposal facility.

Container Disposal Triple rinse containers. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke. Follow advice on product label and/or leaflet.

SECTION 14. TRANSPORT INFORMATION

TRANSPORTATION CLASSIFICATION:
 UN1268, Petroleum Distillates, N.O.S. 3, PG III*

* When packages size is greater than 2 gallons the RQ of Pyrethrins is met at 1 lbs. the RQ(Pyrethrins) must be added to the proper shipping name at the end of the description**

FREIGHT CLASSIFICATION:
 Insecticides or Fungicides, N.O.I.; other than poison

SECTION 15. REGULATORY INFORMATION

EPA Registration No. 432-1033

US Federal Regulations

TSCA list

Piperonyl butoxide	51-03-6
Butoxypolyethylene-/propylene glycol	9038-95-3
Distillates (petroleum), hydrotreated light	64742-47-8

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

None.

SARA Title III - Section 302 - Notification and Information

None.

SARA Title III - Section 313 - Toxic Chemical Release Reporting

Piperonyl butoxide	51-03-6	1.0%
--------------------	---------	------

US States Regulatory Reporting

CA Prop65

This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

US State Right-To-Know Ingredients

Pyrethrins including cinerins	8003-34-7	CA, CT, IL, MN, PA, RI
-------------------------------	-----------	------------------------



Material Safety Data Sheet

PYRENONE® 25-5 PUBLIC HEALTH INSECTICIDE

MSDS Number: 102000004841
MSDS Version 3.1

SARA Title III - Section 302 - Notification and Information
None.

SARA Title III - Section 313 - Toxic Chemical Release Reporting
Piperonyl butoxide 51-03-6

1.0%

US States Regulatory Reporting

CA Prop65

This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

US State Right-To-Know Ingredients

Pyrethrins including cinerins	8003-34-7	CA, CT, IL, MN, PA, RI
Piperonyl butoxide	51-03-6	NJ

Canadian Regulations

Canadian Domestic Substance List

Pyrethrins including cinerins	8003-34-7
Piperonyl butoxide	51-03-6
Distillates (petroleum), hydrotreated light	64742-47-8

Environmental

CERCLA

Pyrethrins including cinerins	8003-34-7	1 lbs
-------------------------------	-----------	-------

Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.

International Regulations

European Inventory of Existing Commercial Substances (EINECS)

Pyrethrins including cinerins	8003-34-7
Distillates (petroleum), hydrotreated light	64742-47-8

SECTION 16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

Health - 1 Flammability - 1 Reactivity - 0 Others - none

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision: Updated for general editorial purposes.

Revision Date: 07/09/2010

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions. The product names are registered trademarks of Bayer.