

Safety Data Sheet

P.I..

Revision date : 2013/12/26

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(30501541/SDS_CPA_US/EN)

1. Product and Company Identification

Company

BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP (4357)

Registrant:

Whitmire Micro-Gen Research Laboratories, Inc.
3568 Tree Court Industrial Blvd.
St. Louis, MO 63122

Substance number:

000000413986

Synonyms:

Pyrethrins + piperonyl butoxide

2. Hazards Identification

Emergency overview

CAUTION:
EXTREMELY FLAMMABLE.
KEEP OUT OF REACH OF CHILDREN.
KEEP OUT OF REACH OF DOMESTIC ANIMALS.
HARMFUL IF ABSORBED THROUGH SKIN.
Avoid contact with the skin, eyes and clothing.
Wash thoroughly after handling.
Aerosol container contains flammable gas under pressure.

See Product Label for additional precautionary statements.

State of matter: liquid
Colour: pale straw yellow
Odour: characteristic, of acetone

Potential health effects**Primary routes of exposure:**

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

Acute toxicity:

Relatively nontoxic after single ingestion. Slightly toxic after short-term skin contact. Relatively nontoxic after short-term inhalation.

Irritation / corrosion:

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May cause slight irritation to the eyes. May cause slight irritation to the skin.

Sensitization:

Skin sensitizing effects were not observed in animal studies.

Signs and symptoms of overexposure:

Vomiting may cause aspiration pneumonia due to the ingredients.

Potential environmental effects

Aquatic toxicity:

Acutely toxic for fish.

3. Composition / Information on Ingredients

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
8003-34-7	0.5 %	Pyrethrins
51-03-6	4.0 %	Piperonylbutoxide
68476-40-4	> 10.0 %	Hydrocarbons, C3-4
67-64-1		Acetone
64742-47-8		Distillates (petroleum), hydrotreated light
	>= 85.0 %	Carbon dioxide, liquid
		Proprietary ingredients

4. First-Aid Measures

General advice:

First aid providers should wear personal protective equipment to prevent exposure. Remove contaminated clothing. Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or physician for treatment advice. Have the product container or label with you when calling a poison control center or doctor or going for treatment.

First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

If inhaled:

Remove the affected individual into fresh air and keep the person calm.

Keep patient calm, remove to fresh air, seek medical attention.

If on skin:

Rinse skin immediately with plenty of water for 15 - 20 minutes.

Immediately wash thoroughly with soap and water, seek medical attention.

If in eyes:

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing.

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

If swallowed:

Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Do not induce vomiting. Do not give solids or liquids.

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Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention. Do not induce vomiting due to aspiration hazard.

Note to physician

Treatment:

Treat according to symptoms (decontamination, vital functions), no known specific antidote. Aspiration of this product during induced emesis can result in lung injury. If evacuation of stomach contents is considered necessary, use method least likely to cause aspiration, such as gastric lavage after endotracheal intubation.

5. Fire-Fighting Measures

Flash point:	-20 °C	(Tag closed cup)
Lower explosion limit:	2.2 %(V)	(air)
Upper explosion limit:	9.5 %(V)	(air)
Flammability of Aerosol	> 18 in	(ASTM D 3065)
Products:		
NFPA 30B flammability:	Level 3 Aerosol	

Suitable extinguishing media:

foam, dry powder, carbon dioxide, water spray

Hazards during fire-fighting:

carbon monoxide, carbon dioxide,
Aerosol container contains flammable gas under pressure. Pressure inside container is increased when heated, and may cause explosion. If product is heated above decomposition temperature, toxic vapours will be released. The substances/groups of substances mentioned can be released in case of fire.

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Evacuate area of all unnecessary personnel. Contain contaminated water/firefighting water. Do not allow to enter drains or waterways.

6. Accidental release measures

Personal precautions:

Take appropriate protective measures. Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions:

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water. A spill of or in excess of the reportable quantity requires notification to state, local and national emergency authorities. This product is regulated by CERCLA ('Superfund').

Cleanup:

Dike spillage. Pick up with suitable absorbent material. Spilled substance/product should be recovered and applied according to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

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7. Handling and Storage

Handling

General advice:

RECOMMENDATIONS ARE FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS. PESTICIDE APPLICATORS & WORKERS must refer to the Product Label and Directions for Use attached to the product. Provide good ventilation of working area (local exhaust ventilation if necessary). Keep away from sources of ignition - No smoking. Keep container tightly sealed. Protect against heat. Handle and open container with care. Do not open until ready to use. Once container is opened, content should be used as soon as possible. Provide means for controlling leaks and spills. Follow label warnings even after container is emptied. The substance/ product may be handled only by appropriately trained personnel. Avoid all direct contact with the substance/product. Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapours. Wear suitable personal protective clothing and equipment.

Protection against fire and explosion:

Aerosol container contains flammable gas under pressure. The relevant fire protection measures should be noted. Fire extinguishers should be kept handy. Avoid all sources of ignition: heat, sparks, open flame. Avoid extreme heat. Ground all transfer equipment properly to prevent electrostatic discharge. Electrostatic discharge may cause ignition.

Storage

General advice:

Protect containers from physical damage. Store in a cool, dry, well-ventilated area. Avoid all sources of ignition: heat, sparks, open flame.

Protect from direct sunlight. Keep away from heat. Keep at temperature not exceeding 50°C. Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame.

Storage incompatibility:

General advice: Segregate from incompatible substances. Segregate from foods and animal feeds. Segregate from textiles and similar materials.

Segregate from foods and animal feeds.

Storage stability:

May be kept indefinitely if stored properly. If an expiry date is mentioned on the packaging/label this takes priority over the statements on storage duration in this safety data sheet.

Temperature tolerance

Protect from temperatures above: 130 °F

Explosive at or above indicated temperature.

8. Exposure Controls and Personal Protection

Users of a pesticidal product should refer to the product label for personal protective equipment requirements.

Components with occupational exposure limits

Pyrethrins	OSHA PEL	PEL 5 mg/m ³ ;
	ACGIH TLV	TWA value 5 mg/m ³ ;
Acetone	OSHA PEL	PEL 1,000 ppm 2,400 mg/m ³ ;
	ACGIH TLV	TWA value 500 ppm ; STEL value 750 ppm ;
Carbon dioxide, liquid	OSHA PEL	PEL 5,000 ppm 9,000 mg/m ³ ;
Distillates (petroleum), hydrotreated light	ACGIH TLV	TWA value 200 mg/m ³ Non-aerosol (total hydrocarbon vapor); Application restricted to conditions in which there are negligible aerosol exposures. Skin Designation Non-aerosol (total hydrocarbon vapor); The substance can be absorbed through the skin.

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Advice on system design:

Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

Personal protective equipment

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator. For situations where the airborne concentrations may exceed the level for which an air purifying respirator is effective, or where the levels are unknown or Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:

Chemical resistant protective gloves, Protective glove selection must be based on the user's assessment of the workplace hazards.

Eye protection:

Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS
Wear long sleeved work shirt and long work pants in addition to other stated personal protective equipment. Work place should be equipped with a shower and an eye wash. Handle in accordance with good industrial hygiene and safety practice. Personal protective equipment should be decontaminated prior to reuse. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Take off immediately all contaminated clothing. Store work clothing separately. Hands and/or face should be washed before breaks and at the end of the shift. No eating, drinking, smoking or tobacco use at the place of work. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

Form:	aerosol	
Odour:	characteristic, of acetone	
Colour:	pale straw yellow	
pH value:	approx. 6 - 8	(approx. 23 °C)
Melting point:	-95 °C	Information applies to the solvent.
Boiling point:	56 °C	(1,013 hPa) Information applies to the solvent.
Vapour pressure:	approx. 6550 hPa	(approx. 20 °C) not applicable
Density:	approx. 0.80 g/cm ³	(20 °C)
Vapour density:		not determined
<i>Information on: propane</i>		
Partitioning coefficient n-octanol/water (log Pow):	1.81	(calculated) Study scientifically not justified.
<i>Information on: Distillates (petroleum), hydrotreated light</i>		
Partitioning coefficient n-octanol/water (log Pow):	> 3.0	(calculated)
<i>Information on: Acetone</i>		
Partitioning coefficient n-octanol/water (log Pow):	-0.24	(25 °C) (Calculation Hansch/Leo)

Viscosity, dynamic:		not determined

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Solubility in water:

dispersible

10. Stability and Reactivity

Conditions to avoid:

Avoid all sources of ignition: heat, sparks, open flame. Avoid prolonged storage. Avoid electro-static discharge. Avoid contamination. Avoid prolonged exposure to extreme heat. Avoid extreme temperatures.

Substances to avoid:

No substances known that should be avoided.
strong bases, strong acids, strong oxidizing agents

Hazardous reactions:

The product is chemically stable.

Decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated., Prolonged thermal loading can result in products of degradation being given off.

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:

Possible thermal decomposition products:

carbon monoxide, carbon dioxide

Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released. To avoid thermal decomposition, do not overheat.

No decomposition if stored and handled as prescribed/indicated.

Corrosion to metals:

Corrosive effects to metal are not anticipated.

Oxidizing properties:

Based on its structural properties the product is not classified as oxidizing.

11. Toxicological information

Acute toxicity

Oral:

Type of value: LD50

Species: rat

Value: > 5,000 mg/kg

Inhalation:

Type of value: LC50

Species: rat

Value: > 2.04 mg/l

No mortality was observed.

Dermal:

Type of value: LD50

Species: rat

Value: > 2,000 mg/kg

No mortality was observed.

Irritation / corrosion

Skin:

Species: rabbit

Result: non-irritant

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Eye:

Species: rabbit
Result: non-irritant

Sensitization:

Buehler test
Species: guinea pig
Result: Skin sensitizing effects were not observed in animal studies.

Repeated dose toxicity

Information on: Piperonyl butoxide

Assessment of repeated dose toxicity:

The substance may cause damage to the liver after repeated ingestion of high doses, as shown in animal studies. The substance may cause damage to the liver after repeated inhalation of high doses. Repeated dermal uptake of the substance did not cause substance-related effects.

Information on: Acetone

Assessment of repeated dose toxicity:

The substance may cause damage to the testes after repeated ingestion of high doses, as shown in animal studies. The substance may cause damage to the hematological system after repeated ingestion of high doses. The substance may cause damage to the kidney after repeated ingestion of high doses, as shown in animal studies.

Carcinogenicity

Information on: pyrethrum

Not Likely to Be Carcinogenic to Humans.

Information on: Piperonyl butoxide

In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed. The US EPA has classified this substance with the rating of 'C', possible human carcinogen.

Reproductive toxicity

Information on: pyrethrum

No reproductive toxic effects reported.

Information on: Piperonyl butoxide

No reproductive toxic effects reported.

The results of animal studies gave no indication of a fertility impairing effect.

Information on: Acetone

As shown in animal studies, the product may cause damage to the testes after repeated high exposures that cause other toxic effects.

Information on: Acetone

As shown in animal studies, the product may cause damage to the testes after repeated high exposures that cause other toxic effects.

Other Information:

Misuse can be harmful to health.

12. Ecological Information

Fish

Information on: pyrethrum

Acute:

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static

Oncorhynchus mykiss/LC50 (96 h): 0.0052 mg/l

Lepomis macrochirus/LC50 (96 h): 0.01 mg/l

Information on: Piperonyl butoxide

Acute:

other Oncorhynchus mykiss/LC50 (96 h): 6.12 mg/l

Information on: Distillates (petroleum), hydrotreated light

Acute:

OECD Guideline 203 semistatic

Oncorhynchus mykiss/LL50 (96 h): 2 - 5 mg/l

The product has low solubility in the test medium. A saturated solution has been tested. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. Nominal values (confirmed by concentration control analytics)

Information on: Acetone

Acute:

OECD 203; ISO 7346; 84/449/EEC, C.1 Flow through.

Pimephales promelas/LC50 (96 h): 6,210 mg/l

The statement of the toxic effect relates to the analytically determined concentration.

Fish test acute static

Oncorhynchus mykiss/LC50 (96 h): 5,540 mg/l

Nominal concentration.

Information on: pyrethrum

Acute:

static

Oncorhynchus mykiss/LC50 (96 h): 0.0052 mg/l

Lepomis macrochirus/LC50 (96 h): 0.01 mg/l

Information on: Piperonyl butoxide

Acute:

other Oncorhynchus mykiss/LC50 (96 h): 6.12 mg/l

Aquatic invertebrates

Information on: pyrethrum

Acute:

Daphnia magna/EC50 (48 h): 0.012 mg/l

Daphnia magna/No observed effect concentration (28 d): 0.00086 mg/l

Information on: Piperonyl butoxide

Acute:

other Daphnia magna/EC50 (48 h): 0.51 mg/l

Information on: Distillates (petroleum), hydrotreated light

Acute:

OECD Guideline 202, part 1 static

Daphnia magna/EL50 (48 h): 1.4 mg/l

The details of the toxic effect relate to the nominal concentration. The product has low solubility in the test medium. A saturated solution has been tested. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Information on: Acetone

Acute:

Daphnia test acute static

Daphnia pulex/LC50 (48 h): 8,800 mg/l

Nominal concentration.

Daphnia test acute static

Artemia salina/LC50 (24 h): 2,100 mg/l

Nominal concentration.

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Aquatic plants

Information on: pyrethrum

Toxicity to aquatic plants:

No data available.

Information on: Piperonyl butoxide

Toxicity to aquatic plants:

other green algae/EC50:

Information on: Distillates (petroleum), hydrotreated light

Toxicity to aquatic plants:

OECD Guideline 201 static

green algae/EL50 (72 h): 1 - 3 mg/l

The details of the toxic effect relate to the nominal concentration. The product has low solubility in the test medium. A saturated solution has been tested. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

OECD Guideline 201 static

green algae/No observed effect concentration (72 h): 1 mg/l

The details of the toxic effect relate to the nominal concentration. The product has low solubility in the test medium. A saturated solution has been tested. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Information on: Acetone

Toxicity to aquatic plants:

DIN 38412 Part 9 static

Bacteria/Toxic limit concentration (8 d): 530 mg/l

Nominal concentration.

Information on: propane

Toxicity to aquatic plants:

calculated algae/EC50 (96 h): 7.71 mg/l

The product has not been tested. The statement has been derived from the structure of the product.

Environmental mobility:

Information on: pyrethrum

Assessment transport between environmental compartments:

Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

Study scientifically not justified.

Information on: Acetone

Assessment transport between environmental compartments:

The substance will slowly evaporate into the atmosphere from the water surface.

Adsorption to solid soil phase is not expected.

Other adverse effects:

Do not discharge product into the environment without control.

13. Disposal considerations

Waste disposal of substance:

Pesticide wastes are regulated. Improper disposal of excess pesticide, spray mix or rinsate is a violation of federal law. If pesticide wastes cannot be disposed of according to label instructions, contact the State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

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Container disposal:

Do not cut, puncture, crush, or incinerate empty aerosol containers. Consult state or local disposal authorities for approved alternative procedures such as container recycling. Empty aerosol cans may meet the definition of RCRA D003. Consult local and/or regional EPA for further guidance.

Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

14. Transport Information

Land transport

USDOT

Hazard class: 2.1
ID number: UN 1950
Hazard label: 2.1, EHSM
Proper shipping name: AEROSOLS

Sea transport

IMDG

Hazard class: 2.1
ID number: UN 1950
Hazard label: 2.1, EHSM
Marine pollutant: YES
Proper shipping name: AEROSOLS

Air transport

IATA/ICAO

Hazard class: 2.1
ID number: UN 1950
Hazard label: 2.1
Proper shipping name: AEROSOLS, FLAMMABLE

Further information

DOT: This product may be classified as ORM-D (Consumer Commodity) or Limited Quantity. After 12/31/2020, ORM-D will not apply.

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US blocked / not listed

Crop Protection TSCA, US released / exempt

OSHA hazard category: Chronic target organ effects reported; ACGIH TLV established; Flammable Liquid

EPCRA 311/312 (Hazard categories): Acute; Chronic; Fire; Sudden release of pressure

EPCRA 313:

CAS Number **Chemical name**

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51-03-6 Piperonylbutoxide

CERCLA RQ

5000 LBS

1 LBS

CAS Number

67-64-1

8003-34-7

Chemical name

Acetone

Pyrethrins

State regulations

State RTK

MA, NJ, PA

NJ

MA, NJ, PA

MA, NJ, PA

CAS Number

8003-34-7

51-03-6

64742-47-8

Chemical name

Pyrethrins

Piperonylbutoxide

Distillates (petroleum), hydrotreated light

Carbon dioxide, liquid

16. Other Information

Refer to product label for EPA registration number.

Recommended use: insecticide

NFPA Hazard codes:

Health : 1

Fire: 4

Reactivity: 1

Special:

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

SDS Prepared by:

BASF NA Product Regulations

msds@basf.com

SDS Prepared on: 2013/12/26

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