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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: 000000546173

Synonyms: Pyrethrins + piperonyl butoxide + amorphous silica dioxide

2. Hazards Identification

Emergency overview

CAUTION:

KEEP OUT OF REACH OF CHILDREN. Can cause moderate eye irritation. Avoid contact with the skin, eyes and clothing. Wash thoroughly after handling. Avoid inhalation of mists/vapours.

Flammable Liquid

Aerosol container contains flammable gas under pressure.

See Product Label for additional precautionary statements.

State of matter: liquid Colour: off-white

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. Relatively nontoxic after short-term skin contact. Relatively nontoxic after short-term inhalation.

Irritation / corrosion:

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May cause slight irritation to the skin. May cause moderate but temporary irritation to the eyes.

Sensitization:

Skin sensitizing effects were not observed in animal studies.

Signs and symptoms of overexposure:

Vomiting may cause aspiration pneumonia due to the ingredients.

3. Composition / Information on Ingredients

CAS Number	Content (W/W)	Chemical name
8003-34-7	0.6 %	pyrethrum
51-03-6	4.8 %	Piperonylbutoxide
112926-00-8	8.0 %	Silica gel, precipitated, crystalline free
		Proprietary ingredients
67-64-1		Acetone
540-84-1		2,2,4-trimethylpentane
124-38-9		carbon dioxide
64742-47-8	86.6 %	Distillates (petroleum), hydrotreated light

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.

If inhaled:

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

If on skin:

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

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.

If swallowed:

Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Do not induce vomiting. Have person sip a glass of water if able to swallow.

5. Fire-Fighting Measures

Aerosol foam flammability > 18 in no flashback

Suitable extinguishing media:

foam, dry powder, carbon dioxide

Hazards during fire-fighting:

carbon monoxide, carbon dioxide, hydrogen fluoride, halogenated hydrocarbons, halogenated compounds The substances/groups of substances mentioned can be released in case of fire. Aerosol container contains flammable gas under pressure. Risk of explosion at excessive temperatures.

Protective equipment for fire-fighting:

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

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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.

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.

Storage incompatibility:

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

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.

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8. Exposure Controls and Personal Protection

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

Components with workplace control parameters

Acetone	OSHA	PEL 1,000 ppm 2,400 mg/m3 ;
	ACGIH	TWA value 500 ppm ; STEL value 750 ppm ;
carbon dioxide	OSHA	PEL 5,000 ppm 9,000 mg/m3 ;
	ACGIH	TWA value 5,000 ppm; STEL value 30,000 ppm;
2,2,4-trimethylpentane	OSHA	PEL 500 ppm 2,350 mg/m3 ;
	ACGIH	TWA value 300 ppm ;
Distillates (petroleum),		
hydrotreated light	ACGIH	TWA value 200 mg/m3 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.

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.

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9. Physical and Chemical Properties

Form: liquid, suspension
Odour: characteristic, of acetone

Colour: off-white

pH value: approx. 5.8 (23.4 °C)
Density: 0.8442 g/cm3 (20 °C)

Partitioning coefficient

n-octanol/water (log Pow):

Viscosity, dynamic: approx. 110 cps (21.3 °C)

Solubility in water: slightly soluble

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.

not applicable

Substances to avoid:

No substances known that should be avoided.

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.

Thermal decomposition:

Possible thermal decomposition products:

carbon monoxide, carbon dioxide, halogenated hydrocarbons, hydrogen fluoride

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

11. Toxicological information

Acute toxicity

Oral:

Type of value: LD50 Species: rat (female) Value: > 5,000 mg/kg

Inhalation:

Type of value: LC50 Species: rat (male/female) Value: > 2.11 mg/l Exposure time: 4 h

Dermal:

Type of value: LD50 Species: rat (male/female) Value: > 5,000 mg/kg

Irritation / corrosion

Skin:

Species: rabbit

Result: Slightly irritating.

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Eye:

Species: rabbit Result: mildly irritating

Sensitization:

Buehler test

Species: guinea pig

Result: Skin sensitizing effects were not observed in animal studies.

Genetic toxicity

Information on: pyrethrum No mutagenic effects reported.

Carcinogenicity

Information on: pyrethrum

Not Likely to Be Carcinogenic to Humans.

Reproductive toxicity

Information on: pyrethrum

No reproductive toxic effects reported.

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.

Development:

Information on: pyrethrum

No indications of a developmental toxic / teratogenic effect were seen in animal studies.

12. Ecological Information

Fish

Information on: pyrethrum

Acute:

Oncorhynchus mykiss/LC50 (96 h): 0.0051 mg/l

Information on: piperonyl butoxide

Acute:

Lepomis macrochirus/LC50 (96 h): 5.37 mg/l

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.

other static

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

Nominal concentration.

Information on: Silicon dioxide

Acute:

OECD 203; ISO 7346; 84/449/EEC, C.1 static Brachydanio rerio/LC50 (96 h): > 10,000 mg/l

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Aquatic invertebrates

Information on: pyrethrum

Acute:

Daphnia magna/EC50 (48 h): 0.0116 mg/l

Information on: piperonyl butoxide

Acute:

Daphnia magna/LC50 (48 h): 0.51 mg/l

Information on: Acetone

Acute:

static

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

Nominal concentration.

static

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

Nominal concentration.

Information on: Silicon dioxide

Acute:

OECD Guideline 202, part 1 Daphnia magna/EC50 (24 h): > 1,000 mg/l

Aquatic plants

Information on: pyrethrum

Information on: piperonyl butoxide Toxicity to aquatic plants: green algae/EC50: 14.9 mg/l

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: Silicon dioxide Toxicity to aquatic plants: OECD Guideline 201 static

green algae/No observed effect concentration (72 h): 10,000 mg/l

The product has not been tested. The statement has been derived from products of a similar structure or

composition. Nominal concentration.

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.

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.

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14. Transport Information

Reference Bill of Lading

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

EPCRA 311/312 (Hazard categories): Acute; Chronic

EPCRA 313:

<u>CAS Number</u> <u>Chemical name</u> 51-03-6 Piperonylbutoxide

CERCLA RQ CAS Number Chemical name

5000 LBS 67-64-1 Acetone

1000 LBS 540-84-1 2,2,4-trimethylpentane

1 LBS 8003-34-7 Pyrethrins

State regulations

State RTK CAS Number Chemical name

MA, NJ, PA

T12926-00-8

Silica gel, precipitated, crystalline free

MA, NJ, PA 540-84-1 2,2,4-trimethylpentane

MA, NJ, PA 124-38-9 carbon dioxide

16. Other Information

Refer to product label for EPA registration number.

Recommended use: insecticide

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.

MSDS Prepared by:

BASF NA Product Regulations msds@basf.com

MSDS Prepared on: 2012/04/25

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