Safety Data Sheet
ULD BP-100

1. Product and Company Identification

Company
BASF CORPORATION
100 Campus Drive
Florham Park, NJ 07932, USA

24 Hour Emergency Response Information
CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP

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

Substance number: 000000396293
Synonyms: Pyrethrins + piperonyl butoxide + n-octyl bicycloheptene dicarboximide

2. Hazards Identification

Emergency overview

CAUTION:
KEEP OUT OF REACH OF CHILDREN.
KEEP OUT OF REACH OF DOMESTIC ANIMALS.
HARMFUL IF SWALLOWED.
HARMFUL IF ABSORBED THROUGH SKIN.
Prolonged or repeated skin contact may cause sensitization or allergic reactions.
Moderately irritating to the eyes.
Avoid contact with the skin, eyes and clothing.
Wash thoroughly after handling.

See Product Label for additional precautionary statements.

State of matter: liquid
Colour: yellow, clear
Odour: mild, solvent-like

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:

May cause slight irritation to the skin. May cause slight 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	1.0 %	Pyrethrins
51-03-6	2.0 %	Piperonylbutoxide
113-48-4	2.94 %	n-Octyl bicycloheptene dicarboximide
64742-47-8	>= 10.0 %	Distillates (petroleum), hydrotreated light
	<= 84.06 %	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.

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.

Note to physician

Treatment: 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: 185 °F

Suitable extinguishing media:
foam, dry powder, water spray

Hazards during fire-fighting:
carbon monoxide, carbon dioxide, nitrogen dioxide, nitrogen oxide,
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.

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:
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:
Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Protect containers from physical damage. Protect against contamination. The authority permits and storage regulations must be observed.

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.

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

Pyrethrins	OSHA	PEL 5 mg/m3 ;
	ACGIH	TWA value 5 mg/m3 ;
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.

9. Physical and Chemical Properties

Form:	liquid
Odour:	mild, solvent-like
Colour:	yellow, clear
pH value:	not applicable, of low solubility, Information based on the main components.

Boiling point:	> 200 °F	
Vapour pressure:	0.133 hPa	(70 °F)
Density:	0.8066 g/cm3	(approx. 20 °C)
Vapour density:		not determined
Partitioning coefficient n-octanol/water (log Pow):		not applicable
Viscosity, dynamic:	3.11 mPa.s	(20 °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.

Substances to avoid:
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.

Thermal decomposition:
Possible thermal decomposition products:
carbon monoxide, carbon dioxide, nitrogen dioxide, nitrogen oxide
Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released. To avoid thermal decomposition, do not overheat.

Corrosion to metals:
Corrosive effects to metal are not anticipated.

Oxidizing properties:
not fire-propagating

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: > 7.7 mg/l

Dermal:
Type of value: LD50
Species: rabbit
Value: > 2,000 mg/kg

Irritation / corrosion

Skin:
Species: rabbit

Result: non-irritant
May cause slight irritation to the skin.

Eye:
Species: rabbit
Result: non-irritant
May cause slight irritation to the eyes.

Genetic toxicity

Information on: pyrethrum
No mutagenic effects reported.

Information on: Piperonyl butoxide
Results from a number of mutagenicity studies with microorganisms and mammalian cell culture are available. Taking into account all of the information, there is no indication that the substance is mutagenic.

Information on: n-Octyl bicycloheptene dicarboximide
Results from a number of mutagenicity studies with microorganisms and mammalian cell culture are available. Taking into account all of the information, there is no indication that the substance is mutagenic.

Information on: Distillates (petroleum), hydrotreated light
In the majority of tests performed (bacteria/microorganisms/cell cultures) a mutagenic effect was not found. A mutagenic effect was also not observed in in-vivo assays. Literature data.

Carcinogenicity

Information on: pyrethrum
Not Likely to Be Carcinogenic to Humans.
Information on: Piperonyl butoxide
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.
Information on: n-Octyl bicycloheptene dicarboximide
No reproductive toxic effects reported.

Development:

Information on: pyrethrum
No indications of a developmental toxic / teratogenic effect were seen in animal studies.
Information on: Piperonyl butoxide
No indications of a developmental toxic / teratogenic effect were seen in animal studies.
Information on: n-Octyl bicycloheptene dicarboximide
No indications of a developmental toxic / teratogenic effect were seen in animal studies.
Information on: Distillates (petroleum), hydrotreated light
No indications of a developmental toxic / teratogenic effect were seen in animal studies. Literature data.
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12. Ecological Information

Fish

Information on: pyrethrum
Acute:

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

Information on: Piperonyl butoxide
Acute:
other Oncorhynchus mykiss/LC50 (96 h): 6.12 mg/l

Information on: n-Octyl bicycloheptene dicarboximide
Acute:
Oncorhynchus mykiss/LC50 (96 h): 1.4 mg/l

Information on: Distillates (petroleum), hydrotreated light
Acute:
Brachydanio rerio/LC50 (96 h): 7.3 mg/l
The product has not been tested. The statement has been derived from products of a similar structure or composition. Literature data.

Aquatic invertebrates

Information on: pyrethrum
Acute:
Daphnia magna/EC50 (48 h): 0.0116 mg/l

Information on: Piperonyl butoxide
Acute:
other Daphnia magna/EC50 (48 h): 0.51 mg/l

Information on: n-Octyl bicycloheptene dicarboximide
Acute:
Daphnia magna/LC50 (48 h): 2.3 mg/l

Information on: Distillates (petroleum), hydrotreated light
Acute:
Daphnia magna/EL50 (48 h): 1.4 - 21 mg/l
The product has not been tested. The statement has been derived from products of a similar structure or composition. Literature data.

Aquatic plants

Information on: Piperonyl butoxide
Toxicity to aquatic plants:
other green algae/EC50:

Information on: Distillates (petroleum), hydrotreated light
Toxicity to aquatic plants:
algae/EC50 (72 h): 3.7 - 8.3 mg/l
Literature data.

Biodegradable.
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13. Disposal considerations

Waste disposal of substance:
Pesticide wastes are regulated. 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:
Rinse thoroughly at least three times (triple rinse) in accordance with EPA recommendations. Consult state or local disposal authorities for approved alternative procedures such as container recycling. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

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

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

EPCRA 313:

CAS Number	Chemical name
51-03-6	Piperonylbutoxide

CERCLA RQ	CAS Number	Chemical name
1 LBS	121-21-1	pyrethrin I

State regulations

State RTK	CAS Number	Chemical name
MA, NJ, PA	8003-34-7	Pyrethrins
MA, NJ, PA	64742-47-8	Distillates (petroleum), hydrotreated light

16. Other Information

Refer to product label for EPA registration number.

Recommended use: insecticide

NFPA Hazard codes:
Health : 1 Fire: 2 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.

MSDS Prepared by:
BASF NA Product Regulations
msds@basf.com

MSDS Prepared on: 2011/07/19

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