Bonide Rose Shield Concentrate

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : Bonide Rose Shield Concentrate

Product code : 10013674

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Fungicide, Insecticide

1.3. Details of the supplier of the safety data sheet

Bonide Products, LLC
6301 Sutliff Road
Oriskany, NY 13424

Telephone Number: (315) 736-8231
Comment: Bonide hours of operation are 8:00 a.m. to 4:30 p.m EST.

Website: www.bonide.com

Email address: sales@bonide.com

1.4. Emergency telephone numbers (24 hour)

Medical : SafetyCall - (833) 972-1101

Spills : CHEMTREC - 1 (800) 424-9300 and/or 1 (703) 527-3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Flammable liquids 4 H227

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) : No symbol

Signal word (GHS-US) : Warning

Hazard statements (GHS-US) : H227 - Combustible liquid

Precautionary statements (GHS-US) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P370+P378 - In case of fire: Use foam or dry powder for extinction.
P403 - Store in a dry place.
P501 - Dispose of contents/container to in accordance with local/national regulations.

2.3. Other hazards

May cause temporary itching, tingling, burning or numbness of exposed skin, called paresthesia.

SECTION 3: Composition/information on ingredients

Mixture

Name	Product identifier (CAS No)	%
Difenoconazole	119446-68-3	0.66
Thiamethoxam	153719-23-4	0.4
Lambda-cyhalothrin	91465-08-6	0.16
Poly(oxy-1,2-ethanediyl),.alpha.- hydro-.omega.-hydroxy-	25322-68-3	>= 20 - < 30*
cyclohexanone	108-94-1	>= 5 - < 10*
ethanone, 1-phenyl-	98-86-2	>= 1 - < 5*
5-chloro-2-methyl-1,2-thiazol-3-one; 2-methyl-1,2-thiazol-3-one	55965-84-9	>= 0.0015 - < 0.1*

*Ingredients not listed or listed with a weight % range are considered a trade secret and are withheld under 29 CFR 1910.1200(i).

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Assure fresh air breathing. Allow the person to rest. Obtain emergency medical attention.

First-aid measures after skin contact	:	Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
First-aid measures after eye contact	:	Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
First-aid measures after ingestion	:	Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Skin contact paresthesia effects (itching, tingling, burning or numbness) are transient, lasting up to 24 hours.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	:	Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	:	Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard	:	During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

5.3. Advice for firefighters

Firefighting instructions	:	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire.
Protection during firefighting	:	Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	:	Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment	:	Equip cleanup crew with proper protection.
Emergency procedures	:	Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	:	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Clean contaminated surface thoroughly. Clean with detergents. Avoid solvents. Retain and dispose of contaminated wash water.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	:	Use only in an area containing flame proof equipment. Take precautionary measures against static discharges. Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	:	Keep containers tightly closed in a dry, cool and well- ventilated place. Keep out of the reach of children. Keep away from combustible material. Keep in an area equipped with sprinklers. Keep away from food, drink and animal feedingstuffs. No smoking.
Incompatible products	:	Strong bases. strong acids.
Incompatible materials	:	Sources of ignition.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Poly(oxy-1,2- ethanediyl),.alpha.-hydro .omega.-hydroxy-	25322-68-3	TWA (aero- sol)	10 mg/m3	US WEEL
cyclohexanone	108-94-1	TWA	20 ppm	ACGIH
		STEL	50 ppm	ACGIH
		TWA	25 ppm 100 mg/m3	NIOSH REL
		TWA	50 ppm 200 mg/m3	OSHA Z-1
ethanone, 1-phenyl-	98-86-2	TWA	10 ppm	ACGIH
		TWA	10 ppm	US WEEL
difenoconazole	119446-68-3	TWA	5 mg/m3	Syngenta
thiamethoxam	153719-23-4	TWA	3 mg/m3	Syngenta
lambda-cyhalothrin	91465-08-6	TWA	0.04 mg/m3 (Skin)	Syngenta

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
Cyclohexanone	108-94-1	1,2- Cyclohexanediol	Urine	End of shift at end of work week	80 mg/l	ACGIH BEI
Cyclohexanol	Urine	End of shift (As soon as possible after exposure ceases)	8 mg/l	ACGIH BEI		

8.2. Exposure controls

Engineering measures: the following recommendations for exposure controls/personal protection are intended. For the manufacture, formulation and packaging of the product. For applicators consult the product label.

Personal protective equipment : Avoid all unnecessary exposure.
Hand protection : Wear protective gloves.
Eye protection : Chemical goggles or safety glasses.
Respiratory protection : Wear approved mask.
Other information : When using, do not eat, drink or smoke.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Pale yellow liquid.
Color : Clear to slightly yellow.
Odor : Minimal, if any.
Odor threshold : No data available
pH : 4.5 - 5
Relative evaporation rate (butyl acetate=1) : No data available
Melting point : No data available
Freezing point : No data available
Boiling point : No data available
Flash point : 67 °C (152.6 °F) Method: Pensky-Martens closed cup
Self ignition temperature : No data available
Decomposition temperature : No data available
Flammability (solid, gas) : No data available

Vapor pressure	:	No data available
Relative vapor density	:	No data available
Density	:	1.05 g/cm3
Solubility	:	No data available
Viscosity	:	No data available
Explosive properties	:	Not explosive
Oxidizing properties	:	No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

None reasonably foreseeable

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

Extremely high or low temperatures.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

Information on likely routes of exposure

Ingestion, Inhalation, Skin contact, Eye contact

Acute toxicity

Acute oral toxicity : LD50 (Rat, female): 5,000 mg/kg
Acute inhalation toxicity : LC50 (Rat, male and female): > 2.52 mg/l, Exposure time: 4 h, Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity : LD50 (Rat): > 5,000 mg/kg
Skin corrosion/irritation: Species : Rabbit, Result : No skin irritation
Eye Irritation : Species : Rabbit, Result : No eye irritation
Germ cell mutagenicity : Animal testing did not show any mutagenic effects
Carcinogenicity - Assessment : Weight of evidence does not support classification as a carcinogen, In a two-year feeding study of mice, an oncogenic effect was seen in the livers of males and females., The observed tumors do not appear to be relevant for men.
Reproductive : No toxicity to reproduction
STOT-single exposure : The substance or mixture is not classified as specific target organ toxicant, single exposure.
STOT-repeated exposure : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Repeated dose toxicity : Components: difenoconazole: Remarks : No adverse effect has been observed in chronic toxicity tests.
thiamethoxam: Remarks : Did not show neurotoxicity in animal experiments.

SECTION 12: Ecological information

12.1. Toxicity

Thiamethoxam (153719-23-4)	
LC50 fish 1	> 100 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
EC50 Daphnia 1	> 100 mg/l (48 h; Daphnia magna)
LC50 fish 2	> 114 mg/l (96 h; Lepomis macrochirus)
EC50 Daphnia 2	> 119 mg/l (96 h; Ostreidae)

12.2. Persistence and degradability

Bonide Rose Shield Concentrate	
Persistence and degradability	Not established.

Lambda-cyhalothrin (91465-08-6)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Bonide Rose Shield Concentrate	
Bioaccumulative potential	Not established.

Thiamethoxam (153719-23-4)	
Log Pow	-0.13

Lambda-cyhalothrin (91465-08-6)	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Domestic regulation

49 CFR
UN/ID/NA number : NA 1993
Proper shipping name : Combustible liquid, n.o.s.
(CYCLOHEXANONE)
Class : CBL
Packing group : III
Labels : None
ERG Code : 128
Marine pollutant : no
Remarks : Above applies only to containers over 119 gallons or 450 liters. Not regulated if shipped in packages less than or equal to 119 gallons (450 liters).

Special precautions for user : The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15: Regulatory information

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

CAUTION: Harmful if swallowed. Harmful if absorbed through skin. Harmful if inhaled. Avoid breathing vapor or spray mist. Remove and wash contaminated clothing before reuse. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

SECTION 16: Other information

Other information : None.

SDS US (GHS HazCom 2012) - Pesticides
This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.