



# Bonide Rose Shield Systemic Rose & Flower Care 8-12-4

## 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

#### 1.1. Product identifier

Product name : Bonide Rose Shield Systemic Rose & Flower Care 8-12-4  
Product code : 2285874

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

Use of the substance/mixture : Insecticide and Fertilizer

#### 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](http://www.bonide.com)

Email address: [sales@bonide.com](mailto: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

##### GHS-US classification

|  |      |
|--|------|
| Skin Irritation 2                                    | H315 |
| Eye Irritation 2B                                    | H320 |
| Acute Toxicity, Inhalation 4                         | H332 |
| Specific Target Organ Toxicity - Repeated Exposure 2 | H373 |
| Aquatic Environment, Acute 1                         | H400 |

#### 2.2. Label elements

##### GHS-US labelling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Warning

Hazard statements (GHS-US) :

H315 - Causes skin irritation  
H320 - Causes eye irritation  
H332 - Harmful if inhaled  
H373 - May cause damage to organs (heart, liver, blood chemistry, and thyroid) through prolonged or repeated exposure  
H400 - Very toxic to aquatic life

Precautionary statements (GHS-US) :

P261 – Avoid breathing dust  
P264 – Wash hands thoroughly after handling  
P271 – Use only outdoors or in a well-ventilated area  
P273 - Avoid release to the environment  
P280 - Use personal protective equipment as required  
P302+P352 - If on skin: Wash with plenty of water  
P332+P317 - If skin irritation occurs: Get medical help  
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P337+P317 - If eye irritation persists: Get medical help  
P340 - Remove person to fresh air and keep at rest in a position comfortable for breathing.  
P304+P317 - If inhaled: Get medical help  
P319 - Get medical help if you feel unwell  
P362+P364 - Take off contaminated clothing and wash contaminated clothing before reuse  
P501 - Dispose of contents/container to in accordance with local/national regulations

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### SECTION 3: Composition/information on ingredients

#### Mixture

| Name   | Product identifier  | %    |
|--|---------------------|------|
| Imidacloprid, 1-[(6-chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine | CAS No. 138261-41-3 | 0.2  |
| N-methyl pyrolidone  | CAS No. 872-50-4    | 0.75 |

Ingredients not precisely identified are proprietary or non-hazardous.

### 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.
- 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. Call a poison control center or doctor for treatment advice.
- 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

Changes in blood chemistry, Damage to organs (heart, liver, blood chemistry, and thyroid) through prolonged or repeated exposure

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

Respiratory, skin, or eye irritation. No specific antidote is available. 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

May produce gases such as oxides of carbon and nitrogen.

#### 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. Notify authorities if liquid enters sewers or public waters.

#### 6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Precautions for safe handling : Causes moderate eye irritation. Avoid contact with eyes or clothing. Remove clothing immediately if pesticide gets inside. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Protect from moisture.

#### 7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in a dry place. Keep container closed when not in use. Store in original container. Protect from moisture.

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Incompatible products : Strong bases. Strong acids.  
Incompatible materials : Sources of ignition.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Where engineering controls are indicated by specific use conditions or a potential for excessive exposure, use local exhaust ventilation at the point of generation.

#### 8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure.  
Skin protection : To avoid contact with skin wear long pants, long-sleeved shirt, socks, shoes and chemical-resistant gloves. An emergency shower or water supply should be readily accessible to the work area.  
Eye protection : To avoid contact with eyes, wear chemical goggles or shielded safety glasses. An emergency eyewash or water supply should be readily accessible to the work area.  
Respiratory protection : Wear appropriate mask.  
Other information : Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material: 1) do not store, use and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored; 2) wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics or using the toilet.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state : Solid  
Appearance : Grayish brown granules  
Color : Beige  
Odour : Minimal fertilizer smell  
Odour threshold : No data available  
pH :  $6.26 \pm 0.02$   
Melting point : No data available  
Freezing point : No data available  
Boiling point : No data available  
Flash point : No data available  
Self ignition temperature : No data available  
Decomposition temperature : No data available  
Flammability (solid, gas) : No data available  
Vapour pressure : No data available  
Relative density : 0.736 g/ml  
Solubility : Partially soluble  
Viscosity : No data available

Note: Physical data are typical values, but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification.

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Not reactive.

#### 10.2. Chemical stability

This material is stable under normal handling and storage condition.

#### 10.3. Possibility of hazardous reactions

Will not occur.

#### 10.4. Conditions to avoid

Excessive heat. Do not store near heat or flame.

#### 10.5. Incompatible materials

Strong acids. Strong bases.

#### 10.6. Hazardous decomposition products

Under fire conditions, may produce gases such as hydrogen chloride, hydrogen cyanide, and oxides of carbon and nitrogen.

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### SECTION 11: Toxicological information

#### 11.1. Likely Routes of Exposure

Inhalation, skin and eye contact.

#### 11.2. Symptoms of Exposure

Moderately irritating to the eye based on toxicity studies. Dusts may cause irritation. Slightly toxic and minimally irritating to the skin based on toxicity studies. Slightly toxic if ingested based on toxicity studies. Low inhalation toxicity. Delayed, immediate and chronic effects of exposure: None expected.

#### 11.3. Toxicological Data

Data from laboratory studies conducted on this product are summarized below:

Oral: Rat LD50: > 5,000 mg/kg (female)

Dermal: Rat LD50: >5,000 mg/kg

Inhalation: Rat 4-hr LC50: >2.06 mg/l

Eye Irritation: Rabbit: Moderately irritating

Skin Irritation: Rabbit: Minimally irritating

Skin Sensitization: Not a contact sensitizer in guinea pigs following repeated skin exposure.

#### Subchronic (Target Organ) Effects:

Repeated overexposure to imidacloprid, may affect heart, thyroid, blood chemistry, and liver.

#### Carcinogenicity / Chronic Health Effects:

Prolonged overexposure to imidacloprid can cause effects to the thyroid. Imidacloprid did not cause cancer in laboratory animal studies. The U.S. EPA has given imidacloprid a Group E classification (evidence of non-carcinogenicity in humans).

#### Reproductive Toxicity:

In a two-generation reproduction study in rats, imidacloprid produced reduced mean body weights and body weight gains. No other reproductive effects were observed.

#### Developmental Toxicity:

Rat and rabbit studies on imidacloprid resulted in skeletal abnormalities, increased resorptions (rabbits) and reduced body weight gains at doses that were also toxic to mother animals.

#### Genotoxicity:

The imidacloprid mutagenicity studies, taken collectively, demonstrate that imidacloprid is not genotoxic or mutagenic.

#### Assessment Carcinogenicity:

None listed with ACGIH, IARC, NTP or OSHA.

### SECTION 12: Ecological information

#### 12.1. Environmental Hazards

This product is toxic to aquatic invertebrates.

#### 12.2. Ecotoxicity

Data on active ingredient Imidacloprid:

96-hour LC50 Rainbow Trout: 211 mg/l

48-hour EC50 Daphnia: 85 mg/l

96-hour LC50 Mysid: 0.038 ppm

48-hour Honey Bee Contact LD50: 0.078 µg/bee

Japanese Quail Oral LD50: 31 mg/kg

Bobwhite Quail Oral LD50: 152 mg/kg

House Sparrow Oral LD50: 41 mg/kg

48-hour Honey Bee Oral LD50: 0.0039 µg/bee

#### 12.3. Environmental Fate

Hydrolysis half-life of imidacloprid is greater than 30 days at pH 7 and 25°C. The aqueous photolysis half-life is less than 3 hours. The soil surface photolysis of imidacloprid has a half-life of 39 days, and in soil, the half-life ranged from 26 to 229 days.

#### 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 Disposal Method

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Improper disposal of excess pesticide is a violation of Federal law. If the container is leaking or material is spilled for any reason or cause, carefully sweep material into a pile. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material. Dispose of as directed for pesticides above, or apply uncontaminated product according to Directions For Use. Keep unauthorized people away. For chemical spill, leak, fire, or exposure, you may contact CHEMTREC at 800-424-9300.

#### 13.2. Container Handling and Disposal

Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or place empty container in the trash.

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### SECTION 14: Transport information

Not regulated for transport by DOT.

### 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:** Causes 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. Remove and wash contaminated clothing before reuse.

### 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.*