



Bonide Annual Tree & Shrub Insect Control with SYSTEMAXX

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 Annual Tree & Shrub Insect Control with SYSTEMAXX
Product code : 538832054

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

Use of the substance/mixture : Insecticide

1.3. Details of the supplier of the safety data sheet

Bonide Products, Inc.
6301 Sutliff Road
Oriskany, NY 13424
T (315) 736-8231
www.bonide.com

1.4. Emergency telephone number

Emergency number : 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)

Not classified

2.2. Label elements

GHS-US labeling

No labeling applicable

2.3. Other hazards

Causes eye irritation

SECTION 3: Composition/information on ingredients

Mixture

Name	Product identifier	%
Imidacloprid (ISO), 1-(6-chloropyridin-3-ylmethyl)-N-nitroimidazolidin-2-ylidenamine	(CAS No) 138261-41-3	1.47

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.
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 medical attention.

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

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

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

No additional information available

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.

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5.2. Special hazards arising from the substance or mixture

In the event of fire, irritating and toxic gasses can release due to thermal decomposition or combustion. It may produce gases such as hydrogen chloride, hydrogen cyanide, and oxides of carbon and nitrogen.

5.3. Advice for firefighters

- Firefighting instructions : Keep out of smoke. Fight fire from upwind position. Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment. Equipment or materials involved in pesticide fires may become contaminated.
- 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. Carefully handle the container to prevent spills. If material is spilled, carefully contain any material to prevent non-target contamination. Do not walk through spilled material and dispose of as directed in the product label. Keep unprotected persons and animals out of the area. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces. Avoid dust formation. Avoid contact breathing dust. Avoid contact with skin and eyes.

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 : Use recommended protective equipment while cleaning up material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Scrub contaminated area with soap and water. Rinse with water. Use dry absorbent material such as clay granules to absorb and collect wash solution for proper disposal. Contaminated soil may have to be removed and disposed.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : 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 : Store in original container in a cool, dry place, out of the reach of children. Keep container closed when not in use. Protect from freezing.

SECTION 8: Exposure controls/personal protection

The following recommendations for exposure controls/personal protection are intended for the manufacture, formulation, packaging and use of this product.

8.1. Exposure controls

- Personal protective equipment : Avoid all unnecessary exposure. Handle only with adequate ventilation.
- Hand protection : Chemical-resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinylchloride (PVC) or Viton.
- Skin protection : Long-sleeved shirt and long pants. Shoes plus socks.
- Eye protection : Wear protective eyewear (goggles, face shield, or safety glasses).
- Respiratory protection : Not normally required. When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.
- Other information : Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them. When using, do not eat, drink or smoke.

8.2. User Safety Recommendations

Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. If pesticide gets on skin, wash immediately with soap and water. Remove PPE immediately after handling this product. Wash the outside of gloves before removing.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Milky white to light tan liquid.
Color	: Milky white to light tan
Odor	: Similar to white glue.
Odor threshold	: No data available
pH	: 6.03 ± 0.03
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	: Will not flash or burn. Will "steam" from water content.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 1.013 g/ml
Solubility	: No data available
Viscosity	: 162.814 centistokes @ 20°C

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Thermal decomposition or combustion may produce gases such as hydrogen chloride, hydrogen cyanide, and oxides of carbon and nitrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity/irritation studies:

Acute Oral LD50 (Rat): > 4,143 mg/kg (female); 4870 mg/kg (male)

Acute Dermal LD50 (Rabbit): > 2,000 mg/kg (female and male)

Acute Inhalation LC50 (Rat): > 5.33 mg/L (4-h)

Eye Irritation (Rabbit): Minimally irritating

Skin Irritation (Rabbit): Non-irritating

Dermal Sensitization: Not a skin sensitizer

Routes of exposure:

Eye and skin contact, inhalation and ingestion.

Immediate effects:

Eye : Cause eye irritation

Skin: May cause slight irritation. Harmful if absorbed through skin.

Ingestion: Harmful if swallowed.

Inhalation Harmful if inhaled.

Other toxicological information:

Chronic Toxicity: In chronic dietary studies in rats and dogs exposed to imidacloprid, the target organs were the thyroids and/or liver at high dose levels.

Assessment Carcinogenicity: In oncogenicity studies in rats and mice, imidacloprid was not considered carcinogenic in either species.

Reproduction: In a two-generation reproduction study in rats, imidacloprid was not a primary reproductive toxicant. Offspring exhibited reduced body weights at the high dose and in conjunction with maternal toxicity.

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Developmental toxicity: In developmental toxicity studies in rats and rabbits, there was no evidence of an embryotoxic or teratogenic potential for imidacloprid. In both species, developmental effects were observed only at high doses and in conjunction with maternal toxicity.

Neurotoxicity: Studies in rats showed slight behavioral and activity changes only at the highest dose tested. There were no correlating morphological changes observed in the neural tissues.

Mutagenicity: The imidacloprid mutagenicity studies, taken collectively, demonstrate that the active ingredient is not genotoxic or mutagenic.

SECTION 12: Ecological information

12.1. Environmental Hazards

This pesticide is toxic to aquatic invertebrates. Do not apply directly to lakes, streams or ponds. Do not dump rinse water into sewers or other bodies of water.

This product can kill bees and other insect pollinators. Follow application restrictions found in the directions for use to protect pollinators.

12.2. Ecotoxicity

(Data based on Imidacloprid Technical)

LC50 (96h) Rainbow Trout: 211 mg/L

LD50 Bobwhite Quail: 152 mg/kg

EC50 (48h) Daphnia magna: 85 mg/L

EC50 (72h) Algae: > 10 mg/L

Bee LD50: 0.008 ug/bee

12.3. Bioaccumulative potential

(Data based on Imidacloprid Technical)

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.

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

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.

15.1. US Federal regulations

SARA TITLE III CLASSIFICATION:

Section 302: Not applicable.

Section 311/312: Acute health hazard (immediate) Chronic

Section 313: Not applicable

15.3. US State regulations

STATE RIGHT-TO-KNOW: Imidacloprid (CAS No. 13826-41-3): NJ, PA

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.