



Bonide Grass Beater II Over-the-Top Grass Killer Concentrate

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Revision date: 01/03/2024

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

1.1. Product identifier

Product name : Bonide Grass Beater II Over-the-Top Grass Killer Concentrate
Product code : 7969584

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

Use of the substance/mixture : Herbicide

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	
Aspiration hazard 1	H304	
Skin corrosion/irritation 2	H315	
Eye Irritation/damage 2A	H319	
Acute toxicity, inhalation 4	H332	
Carcinogenicity 2	H351	
Specific target organ toxicity, single exposure, respiratory tract irritation		H335
Specific target organ toxicity, single exposure, narcotic effects		H336
Hazardous to the aquatic environment - acute 2		H401
Hazardous to the aquatic environment - long term 2		H411

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H227 - Combustible liquid
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H332 - Harmful if inhaled
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness
H351 - Suspected of causing cancer
H401 - Toxic to aquatic life
H411 - Toxic to aquatic life with long lasting effects

Precautionary statements (Prevention) :

P280 - Wear protective gloves, protective clothing and eye protection or face protection.
P271 - Use only outdoors or in a well-ventilated area.
P201 - Obtain special instructions before use.
P273 - Avoid release to the environment.
P260 - Do not breathe the mist or vapour.
P280 - Wear eye protection.

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Precautionary Statements (Response)	: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P202 - Do not handle until all safety precautions have been read and understood. P264 - Wash contaminated body parts thoroughly after handling. P312 - Call a POISON CENTER or physician if you feel unwell. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or physician. P308 + P313 - IF exposed or concerned: Get medical attention. P302 + P352 - IF ON SKIN: Wash with plenty of soap and water. P332 + P313 - If skin irritation occurs: Get medical attention. P391 - Collect spillage. P331 - Do NOT induce vomiting. P337 + P313 - If eye irritation persists: Get medical attention. P362 + P364 - Take off contaminated clothing and wash it before reuse. P370 + P378 - In case of fire: Use water spray, dry powder, foam or carbon dioxide for extinction.
Precautionary Statements (Storage)	: P403+P405+P233 - Store locked up and in well-ventilated place. Keep container tightly closed.
Precautionary Statements (Disposal)	: P501 - Dispose of contents/container to in accordance with local/national regulations

SECTION 3: Composition/information on ingredients

Mixture

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Name	Product identifier (CAS No)	%
Sethoxydim	74051-80-2	18.0
Solvent naphtha	64742-94-5	50.0 – 75.0
4-Nonylphenol, branched, ethoxylated	127087-87-0	7.0 – 10.0
Naphthalene	91-20-3	3.0 – 5.0
Cumene	98-82-8	0.0 – 3.0
Toluene	108-88-3	0.2 – 0.3

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.
First-aid measures after inhalation	: Keep patient calm, remove to fresh air, seek medical attention. Immediately administer a corticosteroid from a controlled/metered dose inhaler.
First-aid measures after skin contact	: Immediately wash thoroughly with plenty of water, apply sterile dressings, consult a skin specialist.
First-aid measures after eye contact	: Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.
First-aid measures after ingestion	: Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention. Do not induce vomiting due to aspiration hazard.

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

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11. Further important symptoms and effects are so far not known.

Hazards: Vomiting may cause aspiration pneumonia due to the ingredients.

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

Note to physician Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray.

5.2. Special hazards arising from the substance or mixture

Carbon monoxide, carbon dioxide, Sulphur dioxide, nitrogen oxide, nitrogen dioxide, Hydrocarbons, If product is heated above decomposition temperature, toxic vapours will be released. The substances/groups of substances mentioned can be released if the product is involved in a fire.

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5.3. Advice for firefighters

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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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.

6.2. Environmental precautions

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water.

6.3. Methods and material for containment and cleaning up

Dike spillage. Pick up with suitable absorbent material. Place into suitable containers for reuse or disposal in a licensed facility. 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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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 for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. Ensure adequate ventilation. Provide good ventilation of working area (local exhaust ventilation if necessary). Keep away from sources of ignition - No smoking. Keep container tightly sealed. Protect contents from the effects of light. Protect against heat. Protect from air. 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. Avoid aerosol formation. Avoid dust formation. Provide means for controlling leaks and spills. Do not return residues to the storage containers. 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, and open flame. Sources of ignition should be kept well clear. Avoid extreme heat. Keep away from oxidizable substances. Electrical equipment should conform to national electric code. Ground all transfer equipment properly to prevent electrostatic discharge. Electrostatic discharge may cause ignition.

7.2. Conditions for safe storage, including any incompatibilities

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

Further information on storage conditions: 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. Protect from temperatures above: 40 °C. Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

SECTION 8: Exposure controls/personal protection

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

Advice on system design: Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

Components with occupational exposure limits

naphthalene	ACGIH, US: ACGIH, US: OSHA Z1:	TWA value 10 ppm ; Skin Designation ; Danger of cutaneous absorption PEL 10 ppm 50 mg/m3 ;
cumene	OSHA Z1: OSHA Z1: ACGIH, US:	Skin Designation ; The substance can be absorbed through the skin. PEL 50 ppm 245 mg/m3 ; TWA value 5 ppm ;
solvent naphtha	ACGIH, US: ACGIH, US:	Skin Designation Non-aerosol (total hydrocarbon vapor); Danger of cutaneous absorption TWA value 200 mg/m3 Non-aerosol (total hydrocarbon vapor); Application restricted to conditions in which there are negligible aerosol exposures.

Personal protective equipment

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Respiratory protection: Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) TC23C Chemical/Mechanical type filter system to remove a combination of particles, gas and vapours. 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 face piece pressure demand self-contained breathing apparatus (SCBA) or a full-face piece 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:

Wear long sleeved work shirt and long work pants in addition to other stated personal protective equipment. Workplace 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.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form	: Liquid
Odor	: Aromatic
Odor threshold	: Not determined since harmful by inhalation
Color	: Yellow
pH	: approx. 3 - 5 (1% (m), 25 °C)
Freezing point	: approx. -20 °C information applies to the solvent.
Boiling point	: approx. -20 °C information applies to the solvent.
Flash point	: 145 °F (62.78°C)
Flammability	: Not highly flammable
Lower and Upper explosion limit:	: As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.
Autoignition	: 449 - 510 °C Information applies to the solvent.
Vapor pressure	: Approx. 1 hPa (20 °C) Information applies to the solvent.
Density	: approx. 0.93 g/cm ³ (20 °C) 7.7696 Lb/USg (68 °F)
Vapor density	: not applicable
Partitioning coefficient n-octanol/water (log Pow)	: not applicable
Thermal decomposition	: Carbon monoxide, carbon dioxide, Sulphur dioxide, nitrogen dioxide, nitrogen oxide, Hydrocarbons Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released.
Viscosity, dynamic	: approx. 2.80 mPa.s
Solubility in water	: emulsifiable
Molar mass	: 327.5 g/mol
Evaporation rate	: not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

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

Oxidizing properties: Not an oxidizer.

10.2. Chemical stability

The product is stable if stored and handled as prescribed/indicated.

10.3. Possibility of hazardous reactions

The product is chemically stable. Hazardous polymerization will not occur. No hazardous reactions if stored and handled as prescribed/indicated.

10.4. Conditions to avoid

None applicable

10.5. Incompatible materials

Oxidizing agents

10.6. Hazardous decomposition products

Decomposition products: Prolonged thermal loading can result in products of degradation being given off.

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Thermal decomposition: Possible thermal decomposition products: carbon monoxide, carbon dioxide, Sulphur dioxide, nitrogen dioxide, nitrogen oxide, Hydrocarbons

Stable at ambient temperature. If product is heated above decomposition temperature toxic vapors may be released.

SECTION 11: Toxicological information

11.1. Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

11.2. Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Slightly toxic after single ingestion. Relatively nontoxic after short-term inhalation. Slightly toxic after short-term skin contact.

Oral

Type of value: LD50, Species: rat (male) Value: 5,000 mg/kg, Type of value: LD50, Species: rat (female) Value: 4,285.8 mg/kg

Inhalation

Type of value: LC50, Species: rat, Value: > 7.6 mg/l, Exposure time: 4 h

Dermal

Type of value: LD50, Species: rat, Value: > 5,000 mg/kg, Type of value: LD50, Species: rat, Value: > 4,000 mg/kg

Irritation / corrosion

Assessment of irritating effects: May cause moderate irritation to the skin. Causes substantial but temporary eye injury.

Skin

Species: rabbit, Result: Irritating.

Eye

Species: rabbit, Result: Irritating.

Sensitization

Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

Species: guinea pig, Result: Skin sensitizing effects were not observed in animal studies.

11.3. Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Genetic toxicity

Assessment of mutagenicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Mutagenicity tests revealed no genotoxic potential.

Carcinogenicity

Assessment of carcinogenicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: sethoxydim

Assessment of carcinogenicity: In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed.

Reproductive toxicity

Assessment of reproduction toxicity: The product has not been tested. The statement has been derived from the properties of the individual components.

The results of animal studies gave no indication of a fertility impairing effect.

Teratogenicity

Assessment of teratogenicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: sethoxydim

Assessment of teratogenicity: Causes developmental effects in animals at high, maternally toxic doses.

Other Information

Misuse can be harmful to health

11.4. Symptoms of Exposure

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further important symptoms and effects are so far not known.

Medical conditions aggravated by overexposure

Existing dermatitis may be aggravated by exposure.

SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity

Assessment of aquatic toxicity: There is a high probability that the product is not acutely harmful to fish. Acutely harmful for aquatic invertebrates. Very toxic (acute effect) to aquatic plants.

Toxicity to fish

LC50 (96 h) 43 - 63 mg/l, Oncorhynchus mykiss

LC50 (96 h) 19.375 mg/l, Cyprinodon variegatus

Aquatic invertebrates

EC50 (48 h) 18.5 mg/l, Daphnia magna

EC50 (96 h) 4.429 mg/l, Mysidopsis bahia

Toxicity to fish

Information on: sethoxydim

LC50 (96 h) 3.5 mg/l, Cyprinodon variegatus

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Aquatic invertebrates

Information on: sethoxydim
EC50 (96 h) 0.8 mg/l, Mysidopsis bahia

Aquatic plants

Information on: sethoxydim
No observed effect concentration (21 d) 0.1 mg/l (growth rate), aquatic plant (static)
EC50 (21 d) 0.3 mg/l (growth rate), aquatic plant (static)

Assessment of terrestrial toxicity

With high probability not acutely harmful to terrestrial organisms. Acutely toxic to honeybees.

Other terrestrial non-mammals

Information on: sethoxydim
LD50 > 10 ug/bee, Apis mellifera
LC50, Anas platyrhynchos

12.2. Persistence and degradability

Elimination information

Not readily biodegradable (by OECD criteria).

12.3. Bioaccumulative potential

Elimination information

Not readily biodegradable (by OECD criteria).

12.4. Mobility in soil

Assessment transport between environmental compartments

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: sethoxydim

Adsorption to solid soil phase is not expected.

12.5. Other adverse effects

Other ecotoxicological advice: The ecological data given are those of the active ingredient. Do not release untreated into natural waters.

SECTION 13: Disposal considerations

13.1. 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.

13.2. 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. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION: THEY MAY EXPLODE AND CAUSE INJURY OR DEATH

SECTION 14: Transport information

Not regulated for transport by USDOT; Classified as combustible liquid in containers greater than 119 gallons.

Sea transport, IMDG/ Air transport, IATA/ICAO

Hazard class: 9

Packing group: III

ID number: UN 3082

Hazard label: 9, EHSM

Marine pollutant: YES

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains SOLVENT NAPHTHA, SETHOXYDIM)

Product is shipped as non-hazardous in suitable packages containing a net quantity of 5 L or less under the provisions of various regulatory agencies: ADR, RID, ADN: Special Provision 375; IMDG: 2.10.2.7; IATA: A197; TDG: Special Provision 99(2); 49CFR: §171.4 (c) (2).

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:

WARNING: Causes substantial but temporary eye injury. CAUSES SKIN IRRITATION. HARMFUL IF ABSORBED THROUGH SKIN. HARMFUL IF SWALLOWED. KEEP OUT OF REACH OF CHILDREN. KEEP OUT OF REACH OF DOMESTIC ANIMALS. Avoid contact with the skin, eyes and clothing.

15.1. US Federal regulations

Registration status:

Crop Protection TSCA, US released / exempt

Chemical TSCA, US blocked / not listed

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EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

EPCRA 313:	<u>CAS Number</u>	<u>Chemical name</u>
	74051-80-2	Sethoxydim
	91-20-3	naphthalene

<u>CERCLA RQ</u>	<u>CAS Number</u>	<u>Chemical name</u>
100 LBS	91-20-3	naphthalene

15.2. US State regulations

<u>State RTK</u>	<u>CAS Number</u>	<u>Chemical name</u>
NJ	91-20-3	naphthalene
	64742-94-5	solvent naphtha
	74051-80-2	Sethoxydim
	98-82-8	cumene
PA	108-88-3	Toluene
	91-20-3	naphthalene
	98-82-8	cumene
	64742-94-5	solvent naphtha

CA Prop. 65 :

Based on an evaluation of the product's composition and the use(s), this product does not require a California Proposition 65 Warning.

NFPA Hazard codes :

Health: 1 Fire: 2 Reactivity : 1 Special :

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.