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

1.1. Product identifier

Product name: Bonide Weed Beater Lawn Weed Killer Concentrate
Product code: 22175394

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, 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)

- Flammable liquid 3: H226
- Acute Dermal toxicity 4: H312
- Skin Sensitization 1: H317
- Serious eye damage/irritation 1: H318
- Chronic Aquatic Toxicity 3: H412

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US): ![Pictogram 1](image1), ![Pictogram 2](image2), ![Pictogram 3](image3)

Signal word (GHS-US): Warning

Hazard statements (GHS-US):
- H226 - Flammable liquid and vapor
- H312 - Harmful if in contact with skin
- H317 - May cause an allergic skin reaction
- H318 - Causes serious eye damage
- H412 - Toxic to aquatic life with long lasting effects

Precautionary statements (GHS-US):
- P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P235+P405 - Keep cool and store locked up.
- P240 - Ground and bond container and receiving equipment.
- P241+P242 - Use explosion-proof equipment and non-sparking tools.
- P243 - Take action to prevent static discharge.
- P261 - Avoid breathing mist or vapors.
- P272 - Contaminated work clothing should not be allowed out of the workplace.
- P273 - Avoid release to the environment.
- P280 - Wear protective gloves, clothing, eye, and face protection.
- P302+P352 - If on skin: Wash with plenty of water.
- P333+P317 - If skin irritation or rash occurs: Get medical help.
- P321+P317 - For specific treatment: Get medical help.
- P362+P364 - Take off contaminated clothing and wash it before reuse.
- P305+P338+P354 - If in eyes: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P303+P355 - If on skin (or hair): Rinse affected areas with water (or shower).
- P361+P364 - Take off immediately all contaminated clothing and wash before reuse.
- P370 - In case of fire: Use CO2, dry chemical or foam to extinguish.
- P501 - Dispose of contents/container to in accordance with local/national regulations
Bonide Weed Beater Lawn Weed Killer Concentrate
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

2.3. Other hazards
The low flashpoint of this product is due to a minor component in the mixture. Based on independent laboratory testing of similar products, this product would not sustain combustion as specified in DOT Regulation 49 CFR 173 Appendix H; however, OSHA HCS 2012 flammable classifications are solely based on tested mixture flash points and boiling points.

SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Mixture</th>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.4-D, dimethylamine salt</td>
<td>(CAS No) 2008-39-1</td>
<td>7.59</td>
<td></td>
</tr>
<tr>
<td>Mecoprop-P (MCPP-p) dimethylamine salt</td>
<td>(CAS No) 66423-09-4</td>
<td>1.83</td>
<td></td>
</tr>
<tr>
<td>Dicamba, dimethylamine salt</td>
<td>(CAS No) 2300-66-5</td>
<td>0.84</td>
<td></td>
</tr>
</tbody>
</table>

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 emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms/injuries : Repeated and prolonged overexposure may cause chronic irritation of respiratory tract. Overexposure may cause adverse effects to liver, kidneys, skin, muscular and gastrointestinal systems.

4.3. Indication of any immediate medical attention and special treatment needed
No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media
Unsuitable extinguishing media : Do not use a water stream.

5.2. Special hazards arising from the substance or mixture
In the event of fire and/or explosion do not breathe fumes. May cause sensitization by inhalation and skin contact. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

5.3. Advice for firefighters
Firefighting instructions : Use 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 : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.
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 eating, drinking or smoking and when leaving work. Ensure adequate ventilation, especially in confined areas. Take precautionary measures against static discharges. Use with local exhaust ventilation. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in original container in a cool well ventilated place. Keep container closed and locked when not in use.

Incompatible products: Acids.

Incompatible materials: Sources of ignition.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Guidelines

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4-D dimethylamine salt 2008-39-1</td>
<td>TWA: 10 mg/m³ inhalable fraction S¹</td>
<td>TWA: 10 mg/m³</td>
<td>IDLH: 10 mg/m³, TWA: 10 mg/m³</td>
</tr>
</tbody>
</table>

NIOSH IDLH Immediately Dangerous to Life or Health

Other information: Vacated limits revoked by the Court of Appeals decision in AFL_CIO v. OSHA, 965 F 2d 962 (11th Cir., 1992).

Engineering Controls: Ensure adequate ventilation, especially in confined areas.

8.2. Exposure controls

Personal protective equipment: Avoid all unnecessary exposure.

Hand protection: Wear protective gloves.

Eye protection: Chemical goggles or safety glasses.

Respiratory protection: If exposure limits are exceeded or irritation is experienced. NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Other information: When using, do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended. Ensure adequate ventilation, especially in confined areas.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid

Appearance: Liquid, phenolic odor

Color: Brown semi-translucent

Odor: Amines

pH: 7.5-8.5

Relative evaporation rate (butyl acetate=1): No data available

Melting point/Freezing point: <35 °F

Boiling point/boiling range: 212°F (100 °C)

Flash point: 107 °F (42 °C) CC (closed cup)

Self ignition temperature: No data available

Decomposition temperature: No data available

Flammability (solid, gas): No data available

Vapor pressure: <17 mmHg

Vapor density: <1

Specific gravity: 1.0287

Solubility: Soluble in water.

Oxidizing properties: No data available

Density: 8.56 pounds/gallon
**SECTION 10: Stability and reactivity**

10.1. Reactivity
No data available.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
None under normal processing.

10.4. Conditions to avoid
Keep out of reach of children.

10.5. Incompatible materials
Acids.

10.6. Hazardous decomposition products
May emit toxic fumes under fire conditions; Carbon monoxide, Carbon dioxide, and Nitrogen oxides.

**SECTION 11: Toxicological information**

11.1. Information on toxicological effects

**Acute toxicity**
Not classified

**2,4-D, dimethylamine salt (2008-39-1)**

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>625 mg/kg (Rat)</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>2115 mg/kg (Rabbit)</td>
</tr>
</tbody>
</table>

**Skin corrosion/irritation**
Not classified

pH: 8

**Serious eye damage/irritation**
Not classified

pH: 8

**Respiratory or skin sensitization**
Not classified

**Germ cell mutagenicity**
Not classified

**Carcinogenicity**
Not classified

**Reproductive toxicity**
Not classified

**Specific target organ toxicity (single exposure)**
Not classified

**Specific target organ toxicity (repeated exposure)**
Not classified

**Aspiration hazard**
Not classified

**Potential Adverse human health effects and symptoms**
Based on available data, the classification criteria are not met.

**SECTION 12: Ecological information**

12.1. Toxicity

**2,4-D, dimethylamine salt (2008-39-1)**

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>&gt; 100 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)</td>
</tr>
<tr>
<td>LC50 other aquatic organisms 1</td>
<td>4 mg/l (48 h; Daphnia magna)</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>168 mg/l (96 h; Lepomis macrochirus)</td>
</tr>
<tr>
<td>Threshold limit other aquatic organisms 2</td>
<td>1 mg/l Salmo gairdneri (Oncorhynchus mykiss)</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

**Bonide Weed Beater Lawn Weed Killer Concentrate**

Persistence and degradability
Not established.

**2,4-D, dimethylamine salt (2008-39-1)**

Persistence and degradability
Not readily biodegradable in water.

**Dicamba, dimethylamine salt (2300-66-5)**

Persistence and degradability
May cause long-term adverse effects in the environment.
12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>Bonide Weed Beater Lawn Weed Killer Concentrate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioaccumulative potential</td>
</tr>
<tr>
<td>Not established.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2,4-D, dimethylamine salt (2008-39-1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCF fish 1</td>
</tr>
<tr>
<td>0.1 (Ictalurus punctatus)</td>
</tr>
<tr>
<td>BCF fish 2</td>
</tr>
<tr>
<td>0.47 (Lepomis macrochirus)</td>
</tr>
<tr>
<td>Log Pow</td>
</tr>
<tr>
<td>0.65 (Experimental value)</td>
</tr>
<tr>
<td>Bioaccumulative potential</td>
</tr>
<tr>
<td>Low potential for bioaccumulation (BCF &lt; 500).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dicamba, dimethylamine salt (2300-66-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioaccumulative potential</td>
</tr>
<tr>
<td>Not established.</td>
</tr>
</tbody>
</table>

12.4. Mobility in soil
No information available

12.5. Other adverse effects
Other information : Avoid release to the environment, as it is toxic to fish and aquatic invertebrates.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Do not reuse container.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

DOT: Not regulated for transport by DOT due to sizes less than 153.92 gallons. UN3082, Environmentally Hazardous Substances, Liquid, N.O.S., 9 PGIII, RQ (2,4-D). The product does not qualify as Hazardous Material in the sizes currently available.

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 absorbed through skin. Harmful if swallowed. Avoid contact with skin, eyes or clothing. Causes moderate eye irritation. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Wear long sleeved shirt, long pants, socks, shoes and gloves. Remove and wash contaminated clothing before reuse.

RCRA STATUS: When discarded in its purchased form, this product is a listed RCRA hazardous waste and should be managed as a hazardous waste. (40 CFR 261.20-24)

15.1. US Federal regulations

SARA 311/312 Hazard Categories
- Acute health hazard : Yes
- Chronic Health hazard : No
- Fire hazard : Yes
- Sudden release of pressure hazard : No
- Reactive Hazard : No

CWA (Clean Water Act)
This product contains substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Hazardous Substances RQs</th>
<th>CERCLA/SARA RQ</th>
<th>Reportable Quantity (RQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4-D, dimethylamine salt 2008-39-1</td>
<td>100 lb</td>
<td></td>
<td>100lb final, 45.4 kg</td>
</tr>
</tbody>
</table>

15.2. US State regulations

Dimethylamine dicamba (2300-66-5)
U.S. - New Jersey - Right to Know Hazardous Substance List

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.