

Liberator 650 Granular Weed Control

Safety Data Sheet

SECTION 1: Product and company identification

Product name : Liberator 650 Granular Weed Control
Use of the substance/mixture : Herbicide
Product code : 4383
Company : ATCO International
1401 Barclay Circle SE
Marietta, GA 30060-2999 - USA
T (770) 424-7550
Emergency number : (800) 255-3924

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Carc. 1A H350

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :



GHS08

Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

May cause cancer

Precautionary statements (GHS-US) :

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Wear eye protection, protective clothing, protective gloves

If exposed or concerned: Get medical advice/attention

Store locked up

Dispose of contents/container to comply with local/regional/national/international regulations.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

Full text of H-phrases: see section 16

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
bromacil	(CAS No) 314-40-9	1.0 - 5.0	Eye Irrit. 2A, H319
Crystalline Silica	(CAS No) 14808-60-7	0.05 - 5.0	Carc. 1A, H350
Distillates (petroleum), hydrotreated middle, Gasoil - unspecified, [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C11 through C25 and boiling in the range of approximately 205 °C to 400 °C (401 °F to 752 °F).]	(CAS No) 64742-46-7	1.0 - 5.0	Asp. Tox. 1, H304

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SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	: Get medical advice/attention. Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse.
First-aid measures after eye contact	: Direct contact with the eyes is likely irritating.
First-aid measures after ingestion	: Rinse mouth with water. Do NOT induce vomiting.

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.
Symptoms/injuries after inhalation	: May cause respiratory irritation.
Symptoms/injuries after skin contact	: Slight irritation.
Symptoms/injuries after eye contact	: Direct contact with the eyes is likely irritating.
Symptoms/injuries after ingestion	: No data available.

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	: Water spray. Carbon dioxide. Dry chemical powder.
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5.2. Special hazards arising from the substance or mixture

Reactivity	: On burning: release of toxic and corrosive gases/vapours (nitrous vapours, sulphur oxides, carbon monoxide - carbon dioxide). If the product is involved in a fire, it can release toxic chlorine gases. Reacts violently with (strong) oxidizers.
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5.3. Advice for firefighters

Firefighting instructions	: Exercise caution when fighting any chemical fire. In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion. Use water spray or fog for cooling exposed containers. Take account of environmentally hazardous firefighting water.
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

General measures	: Remove ignition sources. Use special care to avoid static electric charges.
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6.1.1. For non-emergency personnel

Protective equipment	: Protective goggles. Gloves. Protective clothing.
Emergency procedures	: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment	: Equip cleanup crew with proper protection.
Emergency procedures	: Stop leak if safe to do so. Stop release. Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment	: Collect spillage.
Methods for cleaning up	: This material and its container must be disposed of in a safe way, and as per local legislation. Take up liquid spill into inert absorbent material, e.g.: sand/earth. Clean contaminated surfaces with a soap solution.

6.4. Reference to other sections

No additional information available

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Comply with the legal requirements. Do not handle until all safety precautions have been read and understood. Do not breathe vapors. Use personal protective equipment as required. Do not eat, drink or smoke when using this product. Do not get in eyes, on skin, or on clothing. Handle and open the container with care. Keep away from sources of ignition - No smoking. Take precautions against electrostatic charges. Obtain special instructions before use. Remove contaminated clothing immediately.
- Hygiene measures : Wash thoroughly after handling. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Comply with applicable regulations.
- Storage conditions : Keep container tightly closed. Keep only in the original container in a cool, well ventilated place away from: sparks, open flames, excessive heat.
- Storage area : Store away from heat. Store in a cool area. Store in a dry area. Store in a well-ventilated place. Keep locked up.
- Special rules on packaging : Keep only in original container. meet the legal requirements.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

bromacil (314-40-9)

ACGIH

ACGIH TWA (mg/m³)

10 mg/m³

8.2. Exposure controls

- Personal protective equipment : Safety glasses. Gloves. Protective clothing. Use appropriate personal protective equipment when risk assessment indicates this is necessary.



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Solid
- Appearance : Grey granules.
- Odor : Mild odor
- Odor threshold : No data available
- pH : No data available
- Melting point : No data available
- Freezing point : No data available
- Boiling point : No data available
- Flash point : No data available
- Relative evaporation rate (butyl acetate=1) : No data available
- Flammability (solid, gas) : No data available
- Explosion limits : No data available
- Explosive properties : No data available
- Oxidizing properties : No data available
- Vapor pressure : No data available
- Relative density : No data available
- Relative vapor density at 20 °C : No data available
- Solubility : Soluble in water.
- Log Pow : No data available
- Log Kow : No data available
- Auto-ignition temperature : No data available
- Decomposition temperature : No data available

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Viscosity : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

On burning: release of toxic and corrosive gases/vapours (nitrous vapours, sulphur oxides, carbon monoxide - carbon dioxide). If the product is involved in a fire, it can release toxic chlorine gases. Reacts violently with (strong) oxidizers.

10.2. Chemical stability

Combustible liquid. Stable under normal conditions. Risk of explosion if heated under confinement. Heating may cause a fire or explosion.

10.3. Possibility of hazardous reactions

Refer to section 10.1 on Reactivity.

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

Oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition produces: CO, CO₂, Oxides of nitrogen and other potentially toxic fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

bromacil (314-40-9)	
LD50 oral rat	5200 mg/kg (Rat)
LD50 dermal rat	> 2500 mg/kg (Rat)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	> 4.8 mg/l/4h (Rat)
ATE CLP (oral)	5200.000 mg/kg body weight

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : May cause cancer.

Crystalline Silica (14808-60-7)	
IARC group	1 - Carcinogenic to Humans

Reproductive toxicity : Not classified
Specific target organ toxicity (single exposure) : Not classified
Specific target organ toxicity (repeated exposure) : Not classified
Aspiration hazard Symptoms/injuries : Not classified
after inhalation Symptoms/injuries : May cause respiratory irritation.
after skin contact Symptoms/injuries : Slight irritation.
after eye contact Symptoms/injuries : Direct contact with the eyes is likely irritating.
after ingestion : No data available.

SECTION 12: Ecological information

12.1. Toxicity

bromacil (314-40-9)	
LC50 fish 1	75 mg/l 48 h; <i>Salmo gairdneri</i> (<i>Oncorhynchus mykiss</i>)
LC50 fish 2	71 mg/l (48 h; <i>Leuciscus idus</i>)

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bromacil (314-40-9)	
Threshold limit other aquatic organisms 1	1 mg/l (Pimephales promelas; Chronic)

12.2. Persistence and degradability

bromacil (314-40-9)	
Persistence and degradability	Not readily biodegradable in water. Non degradable in the soil. Photodegradation in the air.

12.3. Bioaccumulative potential

bromacil (314-40-9)	
BCF fish 1	2.8 - 26.5 (672 h; Leuciscus idus; Fresh weight)
BCF fish 2	4.25 (388 h; Pimephales promelas; Fresh weight)
Log Pow	2.11
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose of contents/container to comply with local/regional/national regulations.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT : Not regulated for transport

Additional information

Other information : No supplementary information available.

ADR

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

bromacil	CAS No 314-40-9	1.0 - 5.0
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bromacil (314-40-9)

Listed on SARA Section 313 (Specific toxic chemical listings)

California Proposition 65 - This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer and/or reproductive toxicity

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labelling 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 moderate eye irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing of dust.

SECTION 16: Other information

Training advice : Normal use of this product shall imply use in accordance with the instructions on the packaging.

Full text of H-phrases:

Asp. Tox. 1	Aspiration hazard Category 1
Carc. 1A	Carcinogenicity Category 1A

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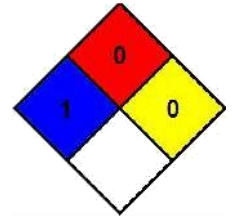
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Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
H304	May be fatal if swallowed and enters airways
H319	Causes serious eye irritation
H350	May cause cancer

NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard : 0 - Materials that will not burn.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



Prepared by: Technical Department

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