



BUCTRIL® BRAND + ATRAZINE HERBICIDE

MSDS Version 3.1

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name BUCTRIL® BRAND + ATRAZINE HERBICIDE
Chemical Name Bromoxynil Octanoate; Atrazine
Synonym
MSDS Number 26
Chemical Family
Chemical Formulation
EPA Registration No. 264-477
Canadian Registrat. No.

Bayer CropScience
 2 T.W. Alexander Drive
 Research Triangle PK, NC 27709
 USA

For Product Use Information: (866)-992-2937 Monday through Friday(CRLF) 8:00AM-4:30PM(CRLF) For Medical Emergency contact DART: (800) 334-7577 24 Hours/Day(CRLF) For Transportation Emergency CHEMTREC: (800) 424-9300 24 Hours/Day

Product Use Description FIFRA regulated use only.

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component Name</u>	<u>CAS No.</u>	<u>Concentration % by Weight</u>	
		<u>Minimum</u>	<u>Maximum</u>
BROMOXYNIL OCTANOATE	1689-99-2	15.7400	
ATRAZINE	1912-24-9	21.6200	
Trimethyl benzene (1,2,4)	95-63-6	2.9000	
Xylene	1330-20-7	2.2000	
Ethyl benzene	100-41-4		
1,2-Propylene glycol	57-55-6		
Other ingredients (Trade secret)			

Material Safety Data Sheet

BUCTRIL® BRAND + ATRAZINE HERBICIDE

MSDS Number: 000000000026

MSDS Version 3.1

SECTION 3. HAZARDS IDENTIFICATION

NOTE: Please refer to Section 11 for detailed toxicological information.

Emergency Overview	Caution. Harmful if swallowed, inhaled or absorbed through the skin. Combustible liquid.
Physical State	liquid
Odor	aromatic
Appearance	tan
Immediate Effects	
Eye	Causes redness, tearing. Vapors and mists can cause irritation.
Skin	Harmful if absorbed through skin. Non-irritating.
Ingestion	Harmful if ingested. May cause nausea, vomiting, abdominal pain, weakness of arms and/or legs. dizziness, loss of coordination.
Inhalation	Harmful if inhaled. May cause upper respiratory tract irritation, coughing, wheezing, nausea, headache, depression.
Chronic or Delayed Long-Term	This product contains ingredients that are considered to be probable or suspected human carcinogens (See Section 11 - Chronic). Prolonged contact may cause chronic dermatitis, reproductive disorders, developmental problems.
Medical Conditions Aggravated by Exposure	Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.

SECTION 4. FIRST AID MEASURES

Eye	Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek medical attention.
Skin	In case of contact, immediately wash with plenty of soap and water for at least 15 minutes. Seek medical attention. Remove contaminated clothing and shoes while washing. Clean contaminated clothing and shoes before re-use or discard if they cannot be thoroughly cleaned.
Ingestion	If victim is conscious and alert, give 2-3 glasses of water. Do not induce vomiting. Material may enter lungs and cause severe damage. Do not give anything by mouth to an unconscious person. Seek immediate medical attention. Do not leave victim unattended. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. Persons attending the victim should avoid direct contact with heavily contaminated clothing and vomitus.

Material Safety Data Sheet

MSDS Number: 000000000026

BUCTRIL® BRAND + ATRAZINE HERBICIDE

MSDS Version 3.1

Inhalation Remove victim from immediate source of exposure and assure that the victim is breathing. If breathing is difficult, administer oxygen, if available. If victim is not breathing, administer CPR (cardio-pulmonary resuscitation). Seek medical attention.

Note to Physician All treatment should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Treat symptomatically. No specific antidote available.

SECTION 5. FIRE FIGHTING MEASURES

Flash Point 55 °C / 131 °F
Flammability Class: FLAMMABLE.
Method Used: Tagliabue Closed Cup

Lower Flammable Limit Data

Upper Flammable Limit No Data

Fire and Explosion Hazards Product will burn under fire conditions. Under fire conditions, toxic, corrosive fumes are emitted. Vapors may travel a considerable distance to a source of ignition and flash back along vapor trail.

Suitable Extinguishing Media Small Fires:, dry chemical, carbon dioxide (CO2)

Large Fires:, foam, water spray

Fire Fighting Instructions Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Keep unnecessary people away, isolate hazard area and deny entry. Evacuate residents who are downwind of fire. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

Persons who may have been exposed to contaminated smoke should be immediately examined by a physician and checked for symptoms of poisoning. The symptoms should not be mistaken for heat exhaustion or smoke inhalation.

SECTION 6. ACCIDENTAL RELEASE MEASURES

General and Disposal Evacuation Procedures and Safety: Wear appropriate gear for the situation. See Personal Protection information in Section 8. Eliminate all sources of ignitions until the area is determined to be free from explosion of fire hazards.

Cleanup and Disposal of Spill: Decontaminate tools and equipment following cleanup. Pump any free liquid into an appropriate closed container. Absorb

Material Safety Data Sheet

BUCTRIL® BRAND + ATRAZINE HERBICIDE

MSDS Number: 000000000026
MSDS Version 3.1

washings and add to container.

Land Spill or Leaks

Containment of Spill: Follow procedure under Cleanup and Disposal of Spill.

Environmental and Regulatory Reporting: Do not flush to drain. If spilled on the ground, the affected area should be scraped clean and placed in an appropriate container for disposal. Prevent material from entering public sewer system or any waterway.

SECTION 7. HANDLING AND STORAGE

Handling Procedures

Do not breathe vapors and mists. Do not get on skin or in eyes. Do not ingest.

Storing Procedures

Store in an area that is away from ignition sources. Store in an area away from food, feedstuffs, fertilizers and seed.

Work/Hygienic Procedures

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:

Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.

Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.

Wash exposed skin promptly to remove accidental splashes of contact with this material.

Min/Max Storage Temperatures

Not Available

Material Safety Data Sheet

BUCTRIL[®] BRAND + ATRAZINE HERBICIDE

MSDS Number: 000000000026

MSDS Version 3.1

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls Where engineering controls are indicated by use conditions of a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures: local exhaust ventilation at the point of generation.

Eye/Face Protection Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material.

Eye contact should be prevented through use of chemical safety glasses with side shields or splash proof goggles. An emergency eye wash must be readily accessible to the work area.

Body Protection Skin contact should be prevented through use of suitable protective clothing, gloves and footwear, selected with regard of use conditions and exposure potential. Consideration must be given both to durability as well as permeation resistance.

Respiratory Protection When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industrial recommendations.

Under normal conditions, in the absence of other airborne contaminants, the following should provide protection from this material up to the conditions specified by the appropriate OSHA, WHMIS or ANSI standard(s): Air-purifying (half-mask/full-face) respirator with cartridge/canister approved for use against pesticides.

Under conditions immediately dangerous to life or health, or emergency conditions with unknown concentrations, use a full-face positive pressure air-supplied respirator equipped with an emergency escape air supply unit or use a self-contained breathing apparatus unit.

General Protection These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. While developing safe handling procedures, do not overlook the need to clean equipment and piping systems for maintenance and repairs. Waste resulting from these procedures should be handled in accordance with Section 13: Disposal Considerations.

Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

Exposure Limits

Material Safety Data Sheet

MSDS Number: 000000000026

BUCTRIL® BRAND + ATRAZINE HERBICIDE

MSDS Version 3.1

ATRAZINE	1912-24-9	ACGIH	TWA		5 mg/m3
		NIOSH	REL		5 mg/m3
		OSHA Z1A	TWA		5 mg/m3
		US CA OEL	TWA PEL		5 mg/m3
Trimethyl benzene (1,2,4)	95-63-6	NIOSH	REL	25 ppm	125 mg/m3
		ACGIH	TWA	25 ppm	123 mg/m3
		OSHA Z1A	TWA	25 ppm	125 mg/m3
		US CA OEL	TWA PEL	25 ppm	125 mg/m3
Xylene	1330-20-7	ACGIH	TWA		25 ppm
		OSHA Z1	PEL	100 ppm	435 mg/m3
		OSHA Z1A	TWA	100 ppm	435 mg/m3
		OSHA Z1A	STEL	150 ppm	655 mg/m3
		US CA OEL	TWA PEL	100 ppm	435 mg/m3
		US CA OEL	Ceiling		300 ppm
		US CA OEL	STEL	150 ppm	655 mg/m3
		NIOSH	REL	100 ppm	435 mg/m3
		NIOSH	STEL	150 ppm	655 mg/m3
		NIOSH	REL	100 ppm	435 mg/m3
		NIOSH	STEL	150 ppm	655 mg/m3
		NIOSH	REL	100 ppm	435 mg/m3
		NIOSH	STEL	150 ppm	655 mg/m3
		Ethyl benzene	100-41-4	ACGIH	TWA
ACGIH	STEL				150 ppm
ACGIH	TWA				100 ppm
ACGIH	STEL				125 ppm
NIOSH	REL			100 ppm	435 mg/m3
NIOSH	STEL			125 ppm	545 mg/m3
OSHA Z1	PEL			100 ppm	435 mg/m3
OSHA Z1A	TWA			100 ppm	435 mg/m3
OSHA Z1A	STEL			125 ppm	545 mg/m3
US CA OEL	TWA PEL			100 ppm	435 mg/m3
1,2-Propylene glycol	57-55-6	US CA OEL	STEL	125 ppm	545 mg/m3
		WEEL	TWA		50 ppm
		Form of Exposure	Total vapor and aerosol.		
		WEEL	TWA		10 mg/m3
		Form of Exposure	Aerosol.		
		ACGIH	TWA		3 mg/m3
		Form of Exposure	Respirable.		
		US CA OEL	TWA PEL		5 mg/m3
		Form of Exposure	Respirable fraction.		
		US CA OEL	TWA PEL		10 mg/m3
		Form of Exposure	Total dust.		
		US CA OEL	TWA PEL		5 mg/m3
		Form of Exposure	Respirable fraction.		
		US CA OEL	TWA PEL		5 mg/m3
Form of Exposure	Respirable fraction.				
US CA OEL	TWA PEL		10 mg/m3		
Form of Exposure	Total dust.				
US CA OEL	TWA PEL		10 mg/m3		

Material Safety Data Sheet

BUCTRIL® BRAND + ATRAZINE HERBICIDE

MSDS Number: 000000000026

MSDS Version 3.1

Form of Exposure	Total dust.	
ACGIH TWA		10 mg/m3
Form of Exposure	Inhalable particulate.	

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	tan
Physical State	liquid
Odor	aromatic
pH	5 - 7 at 100 wt/wt%.
Vapor Pressure	Not available
Vapor Density (air = 1)	Not available
Specific Gravity	1.11 at 20 °C
Boiling Point	96 - 98 °C at 760 mmHg
Melting/Freezing Point	Not available
Solubility (in water)	slightly soluble
Other Information	Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product Information phone number in Section 1 for its exact specifications.

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability	This material is stable under normal handling and storage conditions described in Section 7.
Conditions to Avoid	elevated temperatures
Incompatibility	strong bases strong oxidizing agents
Hazardous Products of Decomposition	Decomposition Type: thermal hydrogen bromide hydrogen cyanide (hydrocyanic acid) oxides of nitrogen oxides of carbon acetonitrile

Material Safety Data Sheet

BUCTRIL® BRAND + ATRAZINE HERBICIDE

MSDS Number: 000000000026
MSDS Version 3.1

Hazardous Polymerization
(Conditions to avoid) not applicable

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity Rat: LD50: 3,600 mg/kg

Acute Dermal Toxicity Rabbit: LD50: > 2,000 mg/kg

Acute Inhalation Toxicity Rat: LC50: > 3.8 mg/l 4 h

Acute Respiratory Irritation:
No test data found for product.

Skin Irritation Rabbit: Non-irritating to minimally irritating.

Eye Irritation Rabbit: Moderately irritating

Chronic Toxicity BROMOXYNIL COMPOUNDS: EPA has classified Bromoxynil as a Class C carcinogen. Based upon the results of rat and rabbit teratogenicity studies, Bromoxynil phenol is considered to be a developmental toxicant. Women of childbearing age should be particularly careful when handling this product to avoid ingestion and skin contact. Although three in vitro genetic toxicity studies were positive for Bromoxynil phenol, four additional in vitro studies and two in vivo studies were negative. Therefore, the weight of evidence indicates that Bromoxynil phenol does not produce genetic toxicity.

Assessment Carcinogenicity

ACGIH

ATRAZINE	1912-24-9	Group A4
Xylene	1330-20-7	Group A4
Ethyl benzene	100-41-4	Group A3

NTP

None

IARC

ATRAZINE	1912-24-9	3
Xylene	1330-20-7	3
Ethyl benzene	100-41-4	2B

OSHA

None

SECTION 12. ECOLOGICAL INFORMATION

Ecological Information For ecotoxicological data call the product information phone number listed in Section 1.

Material Safety Data Sheet

BUCTRIL® BRAND + ATRAZINE HERBICIDE

MSDS Number: 000000000026
MSDS Version 3.1

Environmental Fate For chemical fate data call the product information phone number listed in Section 1.

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material.

Container Disposal Any container or equipment used should be decontaminated immediately after use. Consult state and local regulations regarding the proper disposal of container.

EPA Hazardous Waste - Yes

RCRA Classification

1330-20-7 Xylene

US. EPA Resource Conservation and Recovery Act (RCRA) U List of Hazardous Wastes (40 CFR 261.33(f) and 40 CFR 302 [CERCLA]): U239

SECTION 14. TRANSPORT INFORMATION

For Transportation Regulatory Information call the Product Information phone number in Section 1.

SECTION 15. REGULATORY INFORMATION

US Federal Regulations

EPA Registration No. 264-477

TSCA list

BROMOXYNIL OCTANOATE	1689-99-2
ATRAZINE	1912-24-9
Trimethyl benzene (1,2,4)	95-63-6
Xylene	1330-20-7
Ethyl benzene	100-41-4
1,2-Propylene glycol	57-55-6

TSCA 12b export notification

None

SARA Title III - section 302 - notification and information

None

SARA Title III - section 313 - toxic chemical release reporting

BROMOXYNIL OCTANOATE	1689-99-2
----------------------	-----------

1.0%

Material Safety Data Sheet

MSDS Number: 000000000026

BUCTRIL® BRAND + ATRAZINE HERBICIDE

MSDS Version 3.1

ATRAZINE	1912-24-9	1.0%
Trimethyl benzene (1,2,4)	95-63-6	1.0%
Xylene	1330-20-7	1.0%
Ethyl benzene	100-41-4	1.0%

US States Regulatory Reporting

CA Prop65

This product does not contain any substances known to the State of California to cause cancer.

US State right-to-know ingredients

BROMOXYNIL OCTANOATE	1689-99-2	NJ
ATRAZINE	1912-24-9	CA, IL, MN, NJ, PA, RI
Trimethyl benzene (1,2,4)	95-63-6	CA, IL, MN, NJ, PA, RI
Xylene	1330-20-7	CA, CT, IL, MI, MN, NJ, PA, RI
Ethyl benzene	100-41-4	CA, CT, IL, MN, NJ, PA, RI
1,2-Propylene glycol	57-55-6	PA, RI

Canadian Regulations

Canadian Registrat. No.

Canadian Domestic Substance List

ATRAZINE	1912-24-9
Trimethyl benzene (1,2,4)	95-63-6
Xylene	1330-20-7
Ethyl benzene	100-41-4
1,2-Propylene glycol	57-55-6

Environmental

CERCLA

Xylene	1330-20-7	100 lbs
Ethyl benzene	100-41-4	1,000 lbs

Clean Water Section 307 Priority Pollutants

Ethyl benzene	100-41-4
---------------	----------

Safe Drinking Water Act Maximum Contaminant Levels

ATRAZINE	1912-24-9
Xylene	1330-20-7
Ethyl benzene	100-41-4

International Regulations

EU Classification

BROMOXYNIL OCTANOATE	1689-99-2	Harmful Dangerous for the environment
R Phrases		Harmful in contact with skin and if swallowed. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Possible risk of harm to the unborn child.
S Phrases		Keep out of the reach of children. Wear suitable protective clothing and gloves. This material and its container must be disposed of as hazardous waste. Avoid release to the

Material Safety Data Sheet

MSDS Number: 000000000026

BUCTRIL® BRAND + ATRAZINE HERBICIDE

MSDS Version 3.1

ATRAZINE	environment. Refer to special instructions/safety data sheets. 1912-24-9	Harmful Dangerous for the environment
R Phrases	May cause sensitization by skin contact. Harmful: danger of serious damage to health by prolonged exposure if swallowed. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.	
S Phrases	Keep out of the reach of children. Wear suitable protective clothing and gloves. This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Refer to special instructions/safety data sheets.	
Xylene	1330-20-7	Harmful
R Phrases	Flammable. Harmful by inhalation and in contact with skin. Irritating to skin.	
S Phrases	Keep out of the reach of children. Avoid contact with the eyes.	

European Inventory of Existing Commercial Substances (EINECS)

BROMOXYNIL OCTANOATE	1689-99-2
ATRAZINE	1912-24-9
Trimethyl benzene (1,2,4)	95-63-6
Xylene	1330-20-7
Ethyl benzene	100-41-4
1,2-Propylene glycol	57-55-6

SECTION 16. OTHER INFORMATION

	Health	Flammability	Reactivity	Others
HMIS	2	2	0	
NFPA	2	2	0	

Reason for Revisions: Company name change.

Print Date: 12/16/2002

Supersedes MSDS, which is older than: 12/12/2002

This information is provided in good faith but without express or implied warranty. Buyer assumes all responsibility for safety and use not in accordance with label instructions. The product names are registered trademarks of Bayer AG. Bayer CropScience