



Safety Data Sheet

Preparation Date 04-Mar-2024

Revision date 04-Mar-2024

Revision Number: 2

1. Identification of the Substance/Preparation and of the Company/Undertaking

Identification of the product

Product Description Batalium X Herbicide

Other means of identification

Internal SDS code 12-0639

Registration number(s) 70506-639

Recommended use of the chemical and restrictions on use

Recommended use Herbicide.

Uses advised against Activities contrary to label recommendation

Non labeled activities

Details of the Supplier of the Safety Data Sheet

Supplier Address

UPL NA Inc.

PO Box 12219

Research Triangle Park, NC 27709-12219

Emergency telephone number

Company Phone Number 1-800-438-6071

Emergency telephone number Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887

Medical: Rocky Mountain Poison and Drug Safety (866) 673-6671 (24hrs)

2. Hazards Identification

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin sensitization	Category 1
Carcinogenicity	Category 1B
Reproductive Toxicity	Category 2
FLAMMABLE LIQUIDS	Category 4

Label elements

EMERGENCY OVERVIEW

DANGER

Hazard Statements

HARMFUL IF SWALLOWED

Harmful if inhaled

May cause an allergic skin reaction

May cause cancer

Suspected of damaging fertility or the unborn child

combustible liquid

**Appearance** Opaque**Physical state** Liquid**Odor** Mild characteristic**Precautionary Statements - Prevention**

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Wear cold insulating gloves/face shield/eye protection
 Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Do not get in eyes, on skin, or on clothing
 Contaminated work clothing should not be allowed out of the workplace
 Wear protective gloves
 Do not spray on an open flame or other ignition source

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
 IF ON SKIN: Wash with plenty of soap and water
 If skin irritation or rash occurs: Get medical advice/attention
 Wash contaminated clothing before reuse
 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
 Call a POISON CENTER or doctor/physician
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 Rinse mouth
 In case of fire: Use CO₂, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store locked up
 Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards Not Otherwise Classified (HNOC)**OTHER INFORMATION**

- May be harmful in contact with skin
- Non-target organisms in areas adjacent to the treated site may be adversely impacted.

3. Composition/information on Ingredients

Chemical name	CAS No	Weight-%
Bromoxynil octanoate (octanoic acid,2,6-dibromo-4-cyanophenyl ester)	1689-99-2	29.31
Fluroxypyr 1-methylheptyl ester	81406-37-3	10.86
Flucarbazone sodium	181274-17-9	2.16
Cyclohexanone	108-94-1	8.34

If CAS number is "proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.

4. First aid measures

FIRST AID MEASURES

Eye contact	Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
Skin contact	Wash off immediately with soap and plenty of water for at least 15 minutes. Call a poison control center or doctor for treatment advice.
Inhalation	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
Ingestion	Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice.

Most Important Symptoms and Effects, Both Acute and Delayed

Most Important Symptoms and Effects None known.

Indication of Any Immediate Medical Attention and Special Treatment Needed

Notes to physician Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media

Foam. Dry chemical. Carbon dioxide (CO₂). Water spray. Dry sand.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical

Thermal decomposition can lead to release of irritating gases and vapours.

Explosion data**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions Do not eat, drink or smoke when using this product. Avoid contact with skin and eyes. Use personal protective equipment. Provide adequate ventilation. Wash thoroughly after handling.

Environmental Precautions

Environmental precautions Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Methods and material for containment and cleaning up

Methods for Clean-Up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal.

7. Handling and Storage

Precautions for safe handling

Handling Avoid contact with skin and eyes. Wear personal protective equipment. Remove and wash contaminated clothing before re-use. Do not breathe vapours or spray mist. Provide adequate ventilation. Do not eat, drink or smoke when using this product. Keep out of reach of children. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Store in an area where cross-contamination with pesticides, fertilizers, food or feed could not occur.

incompatible materials Strong oxidizing agents. Strong acids. Strong bases.

8. Exposure Controls/Personal Protection

Exposure guidelines

Chemical name	ACGIH TLV	OSHA PEL
Cyclohexanone	STEL: 50 ppm TWA: 20 ppm S*	TWA: 50 ppm TWA: 200 mg/m ³ (vacated) TWA: 25 ppm (vacated) TWA: 100 mg/m ³ (vacated) S*

Engineering controls Investigate engineering techniques to reduce exposures. Local mechanical exhaust ventilation is preferred. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.

Personal protective equipment

Eye/Face Protection

Where there is potential for eye contact have eye flushing equipment available. Safety glasses with side-shields. If splashes are likely to occur, wear: Goggles. Face-shield. Chemical resistant footwear plus socks. Long sleeved clothing.

Skin protection

Respiratory protection

Where airborne exposure is likely, use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. If exposures cannot be kept at a minimum with engineering controls, consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure, use an approved full face positive-pressure, self-contained breathing apparatus. Respiratory protection programs must comply with 29 CFR 1910.134.

General hygiene considerations

Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Avoid contact with skin, eyes and clothing. Wear suitable gloves and eye/face protection. Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance	Opaque	
Physical state	Liquid	
Odor	Mild characteristic	
color	Gray	
Property	<u>VALUES</u>	<u>Remarks/ Method</u>
pH	5	Approximately (1% aq)
Melting point/freezing point		None known
Boiling Point/Range		None known
Flash Point	> 93 °C	None known
Evaporation Rate		None known

Flammability (solid, gas)		None known	
Relative Density	1.1601 g/ml	Specific gravity	
None known		Bulk density	
None known		Water solubility	No information available
None known		Solubility in Other Solvents	
None known		Partition coefficient: n-octanol/water	
None known		Autoignition temperature	
None known		Decomposition temperature	
None known		Viscosity	480 mPas
None known			

9.2 OTHER INFORMATION- NONE

10. Stability and Reactivity

Reactivity

no data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Extremes of temperature and direct sunlight.

incompatible materials

Strong oxidizing agents. Strong acids. Strong bases.

Hazardous decomposition products

Carbon oxides.

11. Toxicological Information

Information on Likely Routes of Exposure

Product information	Batalium X Acute oral LD50 (rat) 1030 mg/kg acute dermal LD50 (rat) >5000 mg/kg Acute inhalation LC50 (rat) >2.14 mg/l/4hr No deaths
Inhalation	HARMFUL IF INHALED.
Eye contact	Moderately irritating to the eyes.
Skin contact	Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.
Ingestion	HARMFUL IF SWALLOWED.

Information on Toxicological Effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Eye damage/irritation Moderately irritating to the eyes.
Sensitization May cause sensitization of susceptible persons.
Mutagenic effects no data available.
Carcinogenicity The information below indicates whether any agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Cyclohexanone 108-94-1	A3	Group 3		-

Reproductive effects Not Available.
STOT - Single Exposure no data available.
STOT - Repeated Exposure no data available.
Aspiration hazard No information available.

Numerical Measures of Toxicity - Product information

LD50 Oral 1030 mg/kg
LD50 Dermal > 5000 mg/kg
LC50 Inhalation > 2.41 mg/l (4-hr) (mist)

12. Ecological Information

ecotoxicity

Flucarbazone sodium
 LC50 FISH (oncorhynchus mykiss) 96 hr = >96.7 mg/L
 LC50 GREEN ALGAE 96 hr = 6.4 mg/L
 EC50 Daphnia 48 hr =38.8 mg/L
 Fluoxypyr-meptyl
 LC50 FISH (rainbow trout) 96 hr = 13.4- 100 mg/L
 EC50 DAPHNIA 96 hr = > 100 mg/ L
 LC50 FISH (bluegill sunfish) 96 hr = > 14.3 mg/L
 Bromoxynil octanoate :
 96 hr Bluegill LC50 = 0.06 mg/L
 96 hr Rainbow trout LC50 = 0.041 mg/L
 48 hr Daphnia magna EC50 = 0.046 mg/L
 Oral LD50 Bobwhite quail = 148 mg/kg
 Oral LD50 Mallard duck = 2050 mg/kg

Persistence/Degradability

no data available.

Bioaccumulation/ Accumulation

Bioaccumulative potential.

Chemical name	Log Pow
Fluroxypyr 1-methylheptyl ester 81406-37-3	4.53
Cyclohexanone 108-94-1	0.86

Other Adverse Effects

no data available

13. Disposal Considerations

Waste Treatment Methods

Waste Disposal Method

Pesticide wastes can be hazardous. Improper disposal of excess pesticide or rinsate is a violation of Federal law. If the wastes cannot be disposed of by use or according to label instructions, contact your State Pesticide or Environmental Control Agency, or the

Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Contaminated packaging Refer to product label.

14. Transport Information

DOT When shipped domestically by highway in non-bulk containers this product can be shipped as not regulated.

When shipped in bulk, by vessel, or internationally refer to the IMDG shipping description:

TDG When shipped in Canada domestic highway non-bulk this product can be shipped as Not regulated as per TDG 1.45.1
In bulk, by vessel or internationally - use IMDG description

IATA

UN/ID no	UN3082
Proper shipping name	Environmentally hazardous substances, liquid, n.o.s (Fluroxypyr-meptyl) (Bromoxynil octanoate)
Hazard class	9
Packing group	PG III
Description	Marine pollutant

IMDG

UN/ID no	UN3082
Proper shipping name	Environmentally hazardous substances, liquid, n.o.s (Bromoxynil octanoate) (Fluroxypyr-meptyl)
Hazard class	9
Packing group	PG III
Environmental hazards	Marine pollutant

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:

signal word WARNING

Keep out of Reach of Children. Harmful if swallowed. Causes substantial but temporary eye injury. Prolonged or frequent repeated skin contact may cause allergic reaction in some individuals. Toxic to plants and may adversely impact the forage and habitat of non-target organisms in areas adjacent to the treated site.

International Inventories

USINV	Not present
DSL/NDSL	Not present
EINECS/ ELINCS	Not Present
ENCS	Not Present
China	Not Present
KECL	Not Present
PICCS	Not Present

AICS Not Present
 TSCA Not Present

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
 EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
 ENCS - Japan Existing and New Chemical Substances
 IECSC - China Inventory of Existing Chemical Substances
 KECL - Korean Existing and Evaluated Chemical Substances
 PICCS - Philippines Inventory of Chemicals and Chemical Substances
 AICS - Australian Inventory of Chemical Substances

Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

CERCLA

Not applicable

Chemical name	RQ	CERCLA EHS RQs	RQ
Cyclohexanone 108-94-1	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

CERCLA

Component	RQ
Cyclohexanone 108-94-1 (8.34)	5000 lb

RCRA

Component	RCRA - D Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Cyclohexanone 108-94-1 (8.34)			U057

Pesticide Information

Component	FIFRA - Restricted Use	FIFRA - Pesticide Product Other Ingredients	FIFRA - Listing of Pesticide Chemicals	California Pesticides - Restricted Materials
Fluroxypyr 1-methylheptyl ester 81406-37-3 (10.86)			X	
Flucarbazone sodium 181274-17-9 (2.16)			X	
Cyclohexanone 108-94-1 (8.34)			X	

State Regulations

Component	California Prop. 65
Bromoxynil octanoate (octanoic acid,2,6-dibromo-4-cyanophenyl ester) 1689-99-2 (29.31)	Developmental

Prop 65 Pictogram



**Prop 65 Warning Statement
 California Proposition 65**

WARNING
 This product can expose you to chemicals which is [are] known to the State of California to cause cancer, birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

State Right-to-Know

Chemical name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Bromoxynil octanoate		X			

(octanoic acid,2,6-dibromo-4-cyanophenyl ester) - 1689-99-2					
Cyclohexanone - 108-94-1	X	X	X	X	

International regulations

U.S. EPA Label information

EPA Pesticide registration number 70506-639

16. Other Information

NFPA **HEALTH** 1 **flammability** 1 **Instability** 0 **Physical hazard** -

Preparation Date 04-Mar-2024

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Revision Summary

Add to system

Disclaimer

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End of SDS