



Safety Data Sheet

Preparation Date 29-Apr-2015

Revision date 22-Jan-2024

Revision Number: 13

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

Identification of the product

Product Description Lifeline Herbicide

Other means of identification

Internal SDS code 12U-901
Registration number(s) 70506-310

Recommended use of the chemical and restrictions on use

Recommended use Herbicide.
Uses advised against Activities contrary to label recommendation

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 - Inhalation (Dusts/Mists)	Category 4
Reproductive Toxicity	Category 1B
Specific target organ toxicity (repeated exposure)	Category 2

Label elements

EMERGENCY OVERVIEW

DANGER

Hazard Statements

Harmful if inhaled
May damage fertility or the unborn child
May cause damage to organs through prolonged or repeated exposure



Appearance Red**Physical state** Liquid**Odor** no data available**Precautionary Statements - Prevention**

Do not handle until all safety precautions have been read and understood
 Wear cold insulating gloves/face shield/eye protection
 Use only outdoors or in a well-ventilated area
 Do not breathe dust/fume/gas/mist/vapors/spray

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Call a POISON CENTER or doctor/physician

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards Not Otherwise Classified (HNOC)**OTHER INFORMATION****3. Composition/information on Ingredients**

Chemical name	CAS No	Weight-%
Glufosinate ammonium	Proprietary	20 - 30%
Propylene Glycol	57-55-6	10
2-Butoxyethanol	111-76-2	3.5

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 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 physician or poison control center immediately.
Ingestion	Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. Call a physician or poison control center immediately.
Protection of First-aiders	Use personal protective equipment.

Most Important Symptoms and Effects, Both Acute and Delayed

Most Important Symptoms and Effects no data available.

Indication of Any Immediate Medical Attention and Special Treatment Needed

Notes to physician Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media

Use: Dry chemical. Carbon dioxide (CO₂). Water spray. alcohol-resistant foam.

Unsuitable extinguishing media no data available.

Specific hazards arising from the chemical

In the event of fire and/or explosion do not breathe fumes.

Hazardous combustion products Carbon oxides. Carbon monoxide. Sulfur oxides.

Explosion data

Protective equipment and precautions for firefighters

Use personal protective equipment. 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 Provide adequate ventilation. Avoid contact with skin, eyes and inhalation of vapors. Use personal protective equipment. Wash thoroughly after handling.

Environmental Precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods and material for containment and cleaning up

Methods for Clean-Up Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers.

7. Handling and Storage

Precautions for safe handling

Handling Wear personal protective equipment. Do not breathe vapours or spray mist. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat. Protect from light. Keep in properly labelled containers. Keep out of the reach of children. Store in an area where cross-contamination with pesticides, fertilizers, food or feed could not occur.

Product is pourable down to -5 C(23 F). At -8 C (17.6 F), the product starts to thicken. Below -8 C (17.6 F), the product will thicken and eventually become a non-pourable crystalline solid. This is completely reversible upon warming the product above -5 C(23 F). The freezing of the product, to where it becomes a non-pourable crystalline solid, does not impact the efficacy of the product.

If product thickens or become solid - allow product to warm to 40 - 70 F (4- 21 C) using drum blankets or hot boxes. Steam may be used to warm however it should not be directly applied. DO NOT use open flame to warm.

incompatible materials Strong acids. Strong oxidizing agents. Bases.

8. Exposure Controls/Personal Protection

Exposure guidelines

Chemical name	ACGIH TLV	OSHA PEL
2-Butoxyethanol	TWA: 20 ppm	TWA: 50 ppm TWA: 240 mg/m ³ (vacated) TWA: 25 ppm (vacated) TWA: 120 mg/m ³ (vacated) S* 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**

Use eye protection to avoid eye contact. Where there is potential for eye contact have eye flushing equipment available. Safety glasses with side-shields.

Skin protection

Wear protective gloves/clothing. Socks and footwear.

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. For emergency and other conditions where exposure limit may be significantly exceeded, use an approved full face positive-pressure, self-contained breathing apparatus or positive pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR 1910.134.

General hygiene considerations

When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Wash hands and face before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection.

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance	Red
Physical state	Liquid
Odor	no data available
color	No information available

<u>Property</u>	<u>VALUES</u>	<u>Remarks/ Method</u>
pH	7	None known
Melting point/freezing point		
Boiling Point/Range		None known
Flash Point	> 212 F / 100 C	None known
Evaporation Rate		None known
Flammability (solid, gas)		None known
Specific gravity	1.12 -1.17	None known
Bulk density		None known
Water solubility		None known
Solubility in Other Solvents	No information available	None known
Partition coefficient: n-octanol/water		None known
Autoignition temperature		None known
Decomposition temperature		None known
Viscosity		None known

9.2 OTHER INFORMATION- NONE

10. Stability and Reactivity

Reactivity

no data available

Chemical stability

Stable under normal conditions. Hazardous polymerisation does not occur.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition.

incompatible materials

Strong acids. Strong oxidizing agents. Bases.

Hazardous decomposition products

Carbon oxides. Carbon monoxide. Oxides of sulfur.

11. Toxicological Information**Information on Likely Routes of Exposure****Product information**

Lifeline/Interline :

Acute oral LD50 (rat) - >5,000 mg/kg

Acute dermal LD50(rat/rabbit) = >2,000 mg/kg

Acute inhalation LC50 (rat) 4 hr = >3.133 mg/L [>12.5 mg/L 1 hr]

Primary eye irritation (rabbit) = Not an irritant

Primary dermal irritation (rabbit)= Not an irritant

Dermal sensitization = Not a sensitizer

Inhalation

HARMFUL IF INHALED.

Eye contact

Not classified.

Skin contact

Based on available data, the classification criteria are not met. Not a skin irritant or sensitizer.

Ingestion

Based on available data, the classification criteria are not met.

Information on Toxicological Effects**Symptoms**

No information available.

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

No information available.

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
2-Butoxyethanol 111-76-2	A3	Group 3		-

Reproductive effects

Not Available.

STOT - Single Exposure

no data available.

STOT - Repeated Exposure

no data available.

Chronic toxicity

Avoid repeated exposure.

Target organ effects

Respiratory System, EYES, skin, Central Nervous System (CNS).

Aspiration hazard

No information available.

Numerical Measures of Toxicity - Product information

LD50 Oral > 5000 mg/kg (rat)
LD50 Dermal > 2000 mg/kg (rat)

12. Ecological Information

ecotoxicity

Do not apply directly to water to areas where surface water is present or to intertidal areas below the mean high water mark. Do not clean equipment or dispose of equipment washwater in a manner that will contaminate water resources or areable land. Do not apply when weather conditions favor drift from treated areas.

Persistence/Degradability

no data available.

Bioaccumulation/ Accumulation

Bioaccumulative potential.

Chemical name	Log Pow
Propylene Glycol 57-55-6	-1.07
2-Butoxyethanol 111-76-2	0.81

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

NOT REGULATED

TDG

NOT REGULATED

IATA

NOT REGULATED

IMDG

NOT REGULATED

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 CAUTION

Ventilation Control PESTICIDE APPLICATORS & WORKERS THESE WORKERS MUST REFER TO PRODUCT LABELING AND DIRECTIONS FOR USE IN ACCORDANCE WITH EPA WORKER PROTECTION STANDARD 40 CFR PART 170.

Harmful if absorbed through the skin. Keep out of Reach of Children.

International Inventories

USINV 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

CERCLA

SARA Product RQ 0

RCRA

Pesticide Information

Component	FIFRA - Restricted Use	FIFRA - Pesticide Product Other Ingredients	FIFRA - Listing of Pesticide Chemicals	California Pesticides - Restricted Materials
Glufosinate ammonium (20 - 30%)			X	
Propylene Glycol 57-55-6 (10)			X	
2-Butoxyethanol 111-76-2 (3.5)			X	

State Regulations

State Right-to-Know

Chemical name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Propylene Glycol - 57-55-6		X	X		
2-Butoxyethanol - 111-76-2	X	X	X		

International regulations

U.S. EPA Label information

EPA Pesticide registration number 70506-310

16. Other Information

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

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Revision Summary

Update section 7 Update Section 9 Update section 11

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End of SDS