Section 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier

Product Name: LEASH
Product Code: 024-02

1.2 Relevant identified uses of the substance or mixture and uses advised against

Product Use: Herbicide

1.3 Details of the supplier of the safety data sheet

Company: Life Scientific Ltd,
Block 4,
Belfield Office Park,
Beech Hill Road,
Dublin 4
Ireland
Telephone: +353 (0) 1 2832024
Email: info@lifescientific.com
Web: www.lifescientific.com

1.4 Emergency contact information

In case of Emergency: Tel. NHS 111

Section 2. HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EU) No. 1272/2008

This substance has no classification under Regulation (EU) 1272/2008

2.2 Label Elements

Labelling according to Regulation (EU) 1272/2008

This product is not classified as dangerous according to EC criteria.

Precautionary Phrases:

P102 Keep out of reach of children.

Other Phrases:

EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

SP 1 Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).

2.3 Other Hazards

No Information available.

Section 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

No substances fulfil the criteria set out in Annex II, Part A of the REACH Regulation (EC) No 1907/2006.

3.2 Mixtures

Chemical Name	CAS	EC	Classification (Regulation (EC) No 1272/2008)	Concentration (% $^{w}/_{w}$)
Clopyralid monoethanolamine salt	55754-85-5	260-929-4	Not Classified	18

Section 4. FIRST AID MEASURES

4.1 Description of first aid measures

General information: Have the product container, label or Safety Data Sheet with you when calling the emergency number, a Poison Control Centre or physician, or going for treatment.

Inhalation: Move to fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest. Call a physician or Poison Control Centre immediately.

Ingestion: If swallowed, seek medical advice immediately and show this container or label. Do NOT induce vomiting.

Skin contact: Take off all contaminated clothing immediately. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.

4.2 Most important symptoms and effects, both acute and delayed

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), no additional symptoms and effects are anticipated.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physicians: There is no specific antidote available. Treat symptomatically.

Section 5. FIREFIGHTING MEASURES

5.1 Extinguishing media

To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam.

5.2 Special hazards arising from the substance or mixture

Hazardous Combustion Products: Under fire conditions some components of this product may decompose. The smoke may contain unidentified toxic and/or irritating compounds. Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide. Combustion products may include trace amounts of: Nitrogen oxides. Hydrogen chloride.

Unusual Fire and Explosion Hazards: This material will not burn until the water has evaporated. Residue can burn. If exposed to fire from another source and water is evaporated, exposure to high temperatures may cause toxic fumes.

5.3 Advice for firefighters

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this SDS.

Special Protective Equipment for Firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

Section 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

6.2 Environmental precautions

Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

6.3 Methods and materials for containment and cleaning up

Contain spillage. Use non-combustible absorbent material to absorb spillage and place in container for disposal according to local/national legislation.

6.4 Reference to other sections

See Section 7 for information on handling and storage and Section 8 for information on PPE

Section 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Handling
General Handling: Keep out of reach of children. Do not swallow. Avoid breathing vapor or mist. Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Wash thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities

Storage
Store in a dry place. Store in original container. Keep container tightly closed when not in use. Do not store near food, foodstuffs, drugs or potable water supplies.

7.3 Specific end use(s)

None.

Section 8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 Control parameters

None.

8.2 Exposure controls

Respiratory protection:	Protection provided by air-purifying respirators is limited. A combination gas, vapour and particulate respirator may be necessary until effective technical measures are introduced. Use self-contained breathing apparatus in case of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.
Skin protection:	Wear suitable chemical-resistant clothing based on the potential for skin contact.
Hand protection:	Use nitrile rubber or other suitable chemical-resistant gloves. Gloves should have a minimum breakthrough time that is appropriate to the duration of exposure. Gloves should be changed if breakthrough suspected.
Eye protection:	Eye protection is not usually required. Follow any site-specific eye protection policies. Eye/face protection should be certified to EN 166.

Engineering measures:	Good general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations to maintain airborne levels below exposure limit requirements or guidance.
Hygiene measures:	When using, DO NOT eat, drink or smoke. Wash hands and face with soap and water before breaks. Shower at the end of the workday. Decontaminate protective clothing before re-use.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Form:	Liquid
Colour:	Brown
Odour:	Odourless
pH (at 20 °C):	7.4 (1 % aqueous solution)
Boiling point (°C):	100 °C Approximately.
Melting point (°C):	Not applicable
Density (g/cm^3):	1.113
Flash point (°C):	> 79
Evaporation Rate (Butyl Acetate = 1)	No test data available
Flammability (solid, gas)	Not applicable to liquids
Flammable Limits In Air	Lower: No test data available Upper: No test data available
Vapor Pressure	No test data available
Vapor Density (air = 1)	No test data available
Specific Gravity (H2O = 1)	1.113 Pyknometer
Solubility in water:	Miscible
Log P octanol/water at 20°C:	No data available
Autoignition Temperature	101.2 kPa 600 °C EC Method A15
Decomposition Temperature	No test data available
Dynamic Viscosity	2.07 mPa.s @ 20 °C
Kinematic Viscosity	1.90 mm2/s @ 20 °C

9.2 Other Information

9.2.1 Information with regard to physical hazard classes

Explosive properties:	Non-explosive
Oxidising properties:	Non-oxidising

9.2.2 Other safety characteristics

None.

Section 10. STABILITY AND REACTIVITY

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical Stability

Thermally stable at typical use temperatures

10.3 Possibility of hazardous reactions

None known. Hazardous polymerisation does not occur. hazardous reactions if stored and handled as prescribed/indicated.

10.4 Conditions to avoid

Active ingredient decomposes at elevated temperatures. Generation of gas during decomposition can cause pressure in closed systems.

10.5 Incompatible material

None known.

10.6 Hazardous decomposition products

Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Carbon monoxide. Carbon dioxide. Hydrogen chloride. Nitrogen oxides. Toxic gases are released during decomposition.

Section 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

LD_{50} oral rat	5000 mg/kg.
LD_{50} percutaneous rabbit	> 2000 mg/kg.
LC_{50} inhalation rat	> 3 mg/l
Eye irritation rabbit	Essentially nonirritating to eyes.
Skin irritation rabbit	Slightly irritating.
Sensitisation	Non Sensitising
Long-term toxicity	No evidence of carcinogenic, teratogenic or mutagenic effects in animal experiments.

11.2 Information on other hazards
Endocrine disrupting properties

Product:
Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Section 12. ECOLOGICAL INFORMATION

12.1 Toxicity

LC_{50} Bluegill sunfish (96 h):	125 – 4686 mg/L
EC_{50} Daphnia magna (48 h):	225 – 1133 mg/L
LD_{50} Mallard duck :	1465 – 2000 mg/L
Dietary LC_{50}, bobwhite (Colinus virginianus):	> 5620 mg/kg diet.
Contact LD_{50}, Honey bee (Apis mellifera):	> 100 micrograms/bee
Oral LD_{50}, Honey bee (Apis mellifera):	> 100 micrograms/bee

12.2 Persistence and degradability

Clopyralid. Biodegradation under aerobic laboratory conditions is below detectable limits (BOD20 or BOD28/ThOD < 2.5%).

12.3 Bioaccumulative potential

Clopyralid. Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

12.4 Mobility in soil

Clopyralid., Potential for mobility in soil is very high

12.5 Results of PBT and vPvB assessment

The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

12.6 Endocrine disrupting properties
Product:
Assessment: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

None.

Section 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste disposal procedures:	Do not contaminate ponds, waterways or ditches with chemical or used container. Do not dispose of waste into sewer. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations.
Contaminated packaging:	Empty remaining contents. Triple rinse containers. Empty containers should be taken for local recycling or waste disposal. Do not re-use empty containers.

Section 14. TRANSPORT INFORMATION

Transport the product in accordance with the provisions of ADR for road, RID for rail, IMDG for the sea, and ICAO / IATA for air transport

14.1 UN Number

Not Applicable

14.2 UN proper shipping name

Not Applicable

14.3 Transport hazard class(es)

Not Applicable

14.4 Packing group

Not Applicable

14.5 Environmental hazards

Not Applicable

14.6 Special precautions for user

Not Applicable

14.7 Maritime transport in bulk according to IMO instruments

Not Applicable

Section 15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulation/legislation specific for the substance or mixture

None.

15.2 Chemical safety assessment

None.

Section 16. OTHER INFORMATION

Full list of relevant hazard and precautionary statements that were not given in full in sections 2 and 3.

Not classified.

The information presented in this document is accurate to the best of our knowledge at the date of its publication. However, the information given is designed only as a guide for the methods of handling, storage, use, transportation and disposal of the product and is not considered a warranty or quality specification. Life Scientific Limited cannot be held responsible for any loss or damage resulting from the handling, storage, use or disposal of the product. The information contained in this document relates only to this specific product.

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