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

1.1 Product Identifier

Product Name: MURCIA
Product Code: 055-03

UFI Code: 9Y15-6KA4-H10R-T9YQ

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

Product Use: Agriculture – 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

Skin irritation	Category 2	H315
Skin sensitisation	Category 1	H317
Serious eye damage	Category 1	H318
Aquatic Chronic	Category 2	H411

2.2 Label Elements

Labelling according to Regulation (EU) 1272/2008

Hazard Pictograms:

Signal Word:

Danger

Hazard Phrases:

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H411	Toxic to aquatic life with long-lasting effects.

Precautionary Phrases:

P102	Keep out of reach of children.
P261	Avoid breathing spray
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305 + P351+ P338+ P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call POISON CENTER/ doctor.
P308 + P311	If exposed or concerned, please call POISON CENTRE or doctor / physician.
P332 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P391	Collect spillage.
P501	Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for empty, clean containers which can be disposed of as non-hazardous waste.

Other Phrases:

EUH208	Contains fatty alcohol ethoxylate alkyl ether. May produce an allergic reaction.
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).
Spe 3	To protect aquatic organisms respect an unsprayed buffer zone of (5m) to non-agricultural land/surface water bodies.

2.3 Other Hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: 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.

Toxicological information: 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 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 No	EC No	Classification (Regulation (EC) No 1272/2008)	Concentration (% $^{w}/_{w}$)
Mesosulfuron methyl	208465-21-8	606-653-3	Aqua. Acute 1, H410	2 - 5
Iodosulfuron-methyl-sodium	144550-36-7	-	Aqua. Acute 1, H400 Aquatic Chronic 1, H410	< 2
Solvent naphtha, heavy aromatic	64742-94-5	265-198-5	Aspiration hazard, 1, H304 Aquatic Chronic 2, H411	2.5 – 25.0
Fatty alcohol ethoxylate alkyl ether	345642-79-7 or 1492044-51-5	-	Skin sensitisation, 1, H317 Eye damage, 1, H318 Aquatic chronic, 2, H411	5.0 – 10.0
Alkylnaphthalinesulfonicacid, polymer with formaldehyde, sodium salt	68425-94-5	-	Eye irritation, 2, H319	5.0 – 15.0
Tetrapropylene benzene sulfonate, calcium salt		234-360-7	Flam liq, 3, H226 Acute tox, 4, H312	1 – 25.0

	11117-11-6 (Benzenesulfonic acid, dodecyl-, branched, calcium salts) 78-83-1 (isobutanol)	(Benzenesulfonic acid, dodecyl-, branched, calcium salts) 201-148-0 (isobutanol)	Skin irritation, 2, H315 Eye damage, 1, H318 STOT SE, 3, H335 STOT SE, 3, H336 Aquatic chronic,2, H411	

Section 4. FIRST AID MEASURES

4.1 Description of first aid measures

General information: In the event of any complaints or symptoms, avoid further exposure. Treat symptomatically. If unwell, consult a physician showing the product container, label or this safety data sheet.

Ingestion: DO NOT induce vomiting unless directed to do so by a Poison Control Centre. Never give anything by mouth to an unconscious person. Rinse mouth with plenty of water. Consult a physician or Poison Control Centre immediately.

Skin contact: Remove contaminated clothing immediately. Wash immediately with plenty of soap and water. Consult a physician or Poison Control Centre immediately

Eye contact: Remove contact lenses if present. Rinse immediately with plenty of water, with the eyelid open for at least 15 minutes. Consult a physician or Poison Control Centre immediately.

4.2 Most important symptoms and effects, both acute and delayed

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable. There is no specific antidote.

Section 5. FIREFIGHTING MEASURES

5.1 Extinguishing media

For small fires: Use water spray, dry chemical, alcohol-resistant foam or carbon dioxide.
For large fires: Use alcohol-resistant foam or water spray. Avoid using a solid water stream as it may cause the fire to scatter or spread.

5.2 Special hazards arising from the substance or mixture

In the event of fire the following may be released: Hydrogen chloride (HCl), Hydrogen cyanide (hydrocyanic acid), Hydrogen iodide (HI), Carbon monoxide (CO), Sulphur oxides, Nitrogen oxides (NOx).

5.3 Advice for firefighters

Wear self-contained breathing apparatus with full face shield. Fight fire from a safe distance and a protected location. Do not allow run-off from firefighting to enter drains or water courses. Cool closed containers exposed to fire with water spray.

Section 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use appropriate personal protective equipment, see section 8. For safe handling and storage, see section 7.

6.2 Environmental precautions

Prevent further leaking or spillage if safe to do so. Prevent entry into sewers and public waters. In the event of a major spillage, contact an expert immediately. Make provisions to collect extinguishing water after fires. If the product contaminates rivers, lakes or drains, notify the UK Environment Agency (Environment Incident Hotline 0800 80 70 60).

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up:
Use mechanical handling equipment. Clean contaminated floors and objects thoroughly, observing environmental regulations. Collect and transfer the product into a properly labelled and tightly closed container.

Additional advice:
Use personal protective equipment. Check also for any local site procedures. If the product is accidentally spilled, do not allow to enter soil, waterways or waste water canal.

6.4 Reference to other sections

Information regarding safe handling, see section 7. Information regarding personal protective equipment, see section 8. Information regarding waste disposal, see section 13

Section 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling: No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice. Ensure adequate ventilation.

Advice on protection against fire and explosion: Keep away from heat and sources of ignition.

Hygiene measures: Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands before breaks and immediately after handling the product. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt).

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers:
Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only.

Advice on common storage: Keep away from food, drink and animal feeding stuffs.

Suitable materials: Aluminium composite film (min. 0,007 mm Aluminium)

7.3 Specific end use(s)

Refer to the label and/or leaflet.

Section 8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 Control parameters

Component	Exposure Limit	Value Type	Source
Mesosulfuron-methyl	10 mg/m3	TWA value	Supplier
Iodosulfuron-methyl-sodium	1 mg/m3	TWA value	Supplier
Mefenpyr-diethyl	10 mg/m3	TWA value	Supplier
Silica, amorpha (Inhalable dust.)	6 mg/m3	TWA value	EH40 (UK)
Silica, amorpha (Respirable dust.)	2.4 mg/m^3	TWA value	EH40 (UK)
Kaolin (Respirable dust.)	2 mg/m^3	TWA value	EH40 (UK)

8.2 Exposure controls

Respiratory protection: Respiratory protection is not required under anticipated circumstances of exposure. Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

Skin protection:	Wear suitable chemical-resistant coveralls (Category 3, Type 5). In case of high exposure risk consider a higher level of protective suit. Where possible wear two layers of clothing. Decontaminate protective clothing before re-use.
Hand protection:	Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet. Material: Nitrile rubber Rate of permeability: > 480 thickness: > 0.4 mm Protective index: Class 6 Directive: Protective gloves complying with EN 374.
Eye protection:	Eye protection should be worn and certified to EN 166, Field of Use = 5 or equivalent.
Skin and body protection:	Wear standard coveralls and Category 3 Type 5 suit. If there is a risk of significant exposure, consider a higher protective type suit. Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

Form	Granules (water dispersible)
Colour	Brown
Odour	Aromatic

Chemical properties

pH (at 23 °C)	8.5 – 10 at 10%	
Density (g/cm^3)	0.635 - 0.745	
Solubility in water	Dispersible	
Autoignition (°C)	251	
Oxidising properties	Not oxidising	
Impact Sensitivity	Not impact sensitive	
Combustion number	CN^3 Local Combustion without spreading	
Density (g/cm^3)	1.057 at 20 °C	
Log P octanol/water at 20°C	Mesosulfuron-methyl:	log Pow: -0.48
	Iodosulfuron-methyl-sodium:	log Pow: -0.7
	Mefenpyr-diethyl:	log Pow: 3.83 at 21 °C

9.2 Other Information

9.2.1 Information on physical hazard classes

None

9.2.2 Other safety characteristics

None

Section 10. STABILITY AND REACTIVITY

10.1 Reactivity

Thermal decomposition: From140 °C, Heating rate: 5 K/min, Decomposition energy: 66 kJ/kg

10.2 Chemical Stability

Stable under recommended storage conditions

10.3 Possibility of hazardous reactions

No hazardous reactions when stored and handled according to prescribed instructions.

10.4 Conditions to avoid

Extremes of temperature and direct sunlight

10.5 Incompatible material

Store only in the original container.

10.6 Hazardous decomposition products

No decomposition products expected under normal conditions of use

Section 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

LD_{50} oral rat:	>2000 mg/kg
LC_{50} inhalation rat:	> 1.1 mg/L (Exposure time 4h) Results determined in liquid aerosol form, highest attainable concentration. No deaths.
LD_{50} dermal rat:	> 5000 mg/kg.
Eye irritation rabbit:	Severe irritation
Skin irritation rabbit:	Irritating
Sensitisation mouse:	Non-sensitisation

Mesosulfuron-methyl, Iodosulfuron-methyl-sodium and Mefenpyr-diethyl

Repeated dose toxicity:	Did not cause specific target organ toxicity in experimental animal studies.
Mutagenicity:	Not mutagenic or genotoxic in either in vitro or in vivo tests.
Carcinogenicity:	Not carcinogenic in lifetime feeding studies (rats and mice).
Reproductive toxicity:	Did not cause reproductive toxicity in a two-generation study in rats.

Mesosulfuron-methyl and Iodosulfuron-methyl-sodium

Developmental toxicity:	Did not cause developmental toxicity in rats and rabbits.

Mefenpyr-diethyl

Developmental toxicity:	Resulted in developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Mefenpyr-diethyl are related to maternal toxicity.

11.2 Information on other hazards

Endocrine disrupting properties:

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} Oncorhynchus mykiss (96 h):	7.5 g/L
EC_{50} Daphnia magna (48 h):	13.1 mg/L
EC_{50} Pseudokirchneriella subcapitata) (72 h):	2.4 mg/L

12.2 Persistence and degradability

Mesosulfuron-methyl

Biodegradability:	Not rapidly biodegradable
Koc:	92

Iodosulfuron-methyl-sodium

Biodegradability:	Not rapidly biodegradable
Koc:	45

Mefenpyr-diethyl

Biodegradability:	Not rapidly biodegradable
Koc:	625

12.3 Bioaccumulative potential

Mesosulfuron-methyl, Iodosulfuron-methyl-sodium and Mefenpyr-diethyl
Bioaccumulation: Does not bioaccumulate

Mefenpyr-diethyl
Bioconcentration factor: 232

12.4 Mobility in soil

Mesosulfuron-methyl
Moderately mobile in soils

Iodosulfuron-methyl-sodium
Mobile in soils
Mefenpyr-diethyl
Slightly mobile in soils

12.5 Results of PBT and vPvB assessment

Mesosulfuron-methyl, Iodosulfuron-methyl-sodium and Mefenpyr-diethyl
Substance is not considered to be persistent, bioaccumulative and toxic (PBT). Substance is not considered to be very persistent and very bioaccumulative (vPvB).

12.6 Endocrine disrupting properties

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

No data available

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 practical, dispose of in compliance with local regulations.

Contaminated packaging: Empty remaining contents. Triple rinse containers. Do not re-use empty containers. Empty containers should be taken for local recycling or waste disposal.

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

3077

14.2 UN proper shipping name

Environmentally hazardous substance, solid, N.O.S., (IODOSULFURON-METHYL SODIUM, MESOSULFURONMETHYL, SOLVENT NAPHTHA (PETROLEUM) HEAVY AROMATIC MIXTURE).

14.3 Transport hazard class(es)

9

14.4 Packing group

III

14.5 Environmental hazards

Marine pollutant, Dangerous to the environment

14.6 Special precautions for user

See sections 6 to 8 of this Safety Data Sheet.

14.7 Transport in bulk according to Annex II of Marpol 73/78 and the IBC code

No Information available

Section 15. REGULATORY INFORMATION

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

To avoid risks to man and the environment comply with the instructions for use.

The mixture contains no ' substances of very high concern "(SVHC) published by the European Chemicals Agency (ECHA) under Article 57 of REACH http://echa.europa.eu/uk/candidate-list- table

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.

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic organisms.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects

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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