

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Issue date: 1/13/2023 Revision date: 1/13/2023 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture Trade name ROOTSUL

UFI UTD0-A046-5001-DY4X

Type of product EC fertiliser

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

1.2.1. Relevant identified uses

Main use category : Professional use

Use of the substance/mixture : Liquid organo-mineral fertiliser; PFC 1 (B) (II)

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

AZUFRERA Y FERTILIZANTES PALLARES, S.A.U.

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1.4. Emergency telephone number

Emergency number : +34 977 524 650

Office hours, Monday to Friday (08:00-17:00)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

H317 Skin Sens 1

Full text of hazard classes, H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

May cause an allergic skin reaction.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS07

Signal word (CLP)

: Warning

Contains

Hazard statements (CLP)

2-methylisothiazol-3(2H)-one

H317 - May cause an allergic skin reaction. P261 - Avoid breathing vapours.

Precautionary statements (CLP)

P280 - Wear protective gloves, eye protection.

P302+P352 - IF ON SKIN: Wash with plenty of water.

P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P362+P364 - Take off contaminated clothing and wash it before reuse.

P501 - Dispose of contents and container to appropriate collection point.

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2.3. Other hazards

PBT: not yet assessed vPvB: not yet assessed

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
sulfur	CAS-No.: 7704-34-9 EC-No.: 231-722-6 EC Index-No.: 016-094-00-1	5 – 7	Skin Irrit. 2, H315
ethanediol substance with a Community workplace exposure limit	CAS-No.: 107-21-1 EC-No.: 203-473-3 EC Index-No.: 603-027-00-1 REACH-no: 01-2119456816- 28	0.09 – 0.1	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
2-methylisothiazol-3(2H)-one	CAS-No.: 2682-20-4 EC-No.: 220-239-6 EC Index-No.: 613-326-00-9 REACH-no: 01-2120764690- 50	< 0.01	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 2 (Inhalation), H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410
hydrogen sulphide substance with a Community workplace exposure limit	CAS-No.: 7783-06-4 EC-No.: 231-977-3 EC Index-No.: 016-001-00-4	< 0.01	Flam. Gas 1A, H220 Press. Gas (Comp.), H280 Acute Tox. 2 (Inhalation), H330 Aquatic Acute 1, H400 (M=10)

Specific concentration limits:		
Name	Product identifier	Specific concentration limits
2-methylisothiazol-3(2H)-one	CAS-No.: 2682-20-4 EC-No.: 220-239-6 EC Index-No.: 613-326-00-9 REACH-no: 01-2120764690- 50	(0.0015 ≤C ≤ 100) Skin Sens. 1A, H317

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

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First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash

occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse eyes with water as a precaution.

First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after skin contact : May cause an allergic skin reaction.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon oxides (CO, CO2). Sulphur oxides.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained

breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Ensure adequate ventilation.

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing vapours.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information

refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Take up liquid spill into absorbent material.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Avoid

breathing vapours. Wear personal protective equipment.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash

contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

Always wash hands after handling the product.

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7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

Incompatible products : Strong acids. Strong bases.

Incompatible materials : Direct sunlight. Heat sources. Sources of ignition.

7.3. Specific end use(s)

See section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

ethanediol (107-21-1)		
EU - Indicative Occupational Exposure Limit (IOEL)		
Local name	Ethylene glycol	
IOEL TWA	52 mg/m³	
IOEL TWA [ppm]	20 ppm	
IOEL STEL	104 mg/m³	
IOEL STEL [ppm]	40 ppm	
Remark	Skin	
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC	
hydrogen sulphide (7783-06-4)		
EU - Indicative Occupational Exposure Limit (IOEL)		
Local name	Hydrogen sulphide	
IOEL TWA	7 mg/m³	
IOEL TWA [ppm]	5 ppm	
IOEL STEL	14 mg/m³	
IOEL STEL [ppm]	10 ppm	
Regulatory reference	COMMISSION DIRECTIVE 2009/161/EU	

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

alkylated naphtalene sulfonate sodium salt (68425-94-5)		
DNEL/DMEL (Workers)		
Long-term - systemic effects, inhalation	20 mg/m³	
Long-term - local effects, inhalation 20 mg/m³		
DNEL/DMEL (General population)		
Long-term - systemic effects, inhalation 12 mg/m³		
Long-term - local effects, inhalation	12 mg/m³	

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alkylated naphtalene sulfonate sodium salt (68425-94-5)		
PNEC (Water)		
11.09 mg/l		
1.109 mg/l		
17.66		
40.2 mg/kg		
4.02 mg/kg		
1.54 mg/kg dwt		
35 mg/m³		
hydrogen sulphide (7783-06-4)		
14 mg/m³		
14 mg/m³		
7 mg/m³		
7 mg/m³		
PNEC (Water)		
0.05 μg/L		
14.9 µg/L		
PNEC (STP)		
1.33 mg/l		

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Personal protective equipment symbol(s):







8.2.2.1. Eye and face protection

Eye protection:

Safety goggles with side protection against splashes (UNE-EN 166:2002). Safety glasses

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8.2.2.2. Skin protection

Hand protection:

Always wash hands after handling the product. Wear suitable gloves resistant to chemical penetration.

8.2.2.3. Respiratory protection

Respiratory protection:

No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation. In case of insufficient ventilation or if the occupational exposure limit is exceeded, wear suitable respiratory equipment.

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid Colour : light brown. Odour Characteristic. Odour threshold : Not available Melting point : Not applicable : Not available Freezing point Boiling point : Not available Flammability : Non flammable. Explosive limits : Not available Lower explosion limit : Not available Upper explosion limit : Not available Flash point : Not available : Not available Auto-ignition temperature : Not available Decomposition temperature . 4 – 7 : 60 - 90 s Viscosity, kinematic Solubility : Not available Partition coefficient n-octanol/water (Log Kow) : Not available Vapour Pressure 20°C : Not available Vapour pressure at 50 °C : Not available Density : 1.2 - 1.3 g/cm³ Relative density : Not available Vapour density : Not available Particle characteristics Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

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10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Under fire conditions, hazardous fumes will be present. Carbon monoxide. Carbon dioxide. Sulphur oxides.

SECTION 11: Toxicological information

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11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008		
Acute toxicity (oral) : Acute toxicity (dermal) : Acute toxicity (inhalation) :	Not classified (Based on available data, the classification criteria are not met.) Not classified (Based on available data, the classification criteria are not met.) Not classified (Based on available data, the classification criteria are not met.)	
sulfur (7704-34-9)		
LD50 oral rat	> 2000 mg/kg bodyweight	
LD50 dermal rat	> 2000 mg/kg bw/day	
LC50 Inhalation - Rat (Dust/Mist)	5.43 mg/l/4h	
ethanediol (107-21-1)		
LD50 dermal rabbit	10600 mg/kg	
hydrogen sulphide (7783-06-4)		
LD50 oral rat	46.4 – 68.1 mg/kg bodyweight	
LD50 dermal rat	632 mg/kg	
Skin corrosion/irritation :	Not classified (Based on available data, the classification criteria are not met.) pH: 4 – 7	
2-methylisothiazol-3(2H)-one (2682-20-4)		
рН	2.58	
hydrogen sulphide (7783-06-4)		
pH	7 – 9.5	
Serious eye damage/irritation :	Not classified (Based on available data, the classification criteria are not met.) pH: 4 – 7	
2-methylisothiazol-3(2H)-one (2682-20-4)		
рН	2.58	
hydrogen sulphide (7783-06-4)		
рН	7 – 9.5	
Respiratory or skin sensitisation :	May cause an allergic skin reaction.	
Germ cell mutagenicity :	Not classified (Based on available data, the classification criteria are not met.)	
Carcinogenicity :	Not classified (Based on available data, the classification criteria are not met.)	
Reproductive toxicity :	Not classified (Based on available data, the classification criteria are not met.)	

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STOT-single exposure :	Not classified (Based on available data, the classification criteria are not met.)
sulfur (7704-34-9)	
NOAEL (oral, rat)	1000 mg/kg bodyweight (90 days)
NOAEL (dermal, rat/rabbit)	400 mg/kg bodyweight (28 days)
STOT-repeated exposure :	Not classified (Based on available data, the classification criteria are not met.)
sulfur (7704-34-9)	
NOAEL, subchronic, oral, rat, systemic	1000 mg/kg bw/day
NOAEL, subacute, Dermal, rat, systemic	400-1000 mg/kg bw/day
ethanediol (107-21-1)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard :	Not classified (Based on available data, the classification criteria are not met.)
ROOTSUL	
Viscosity, kinematic	60 - 90 s

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

: The product is not considered harmful to aquatic organisms nor to cause long-term adverse Ecology - general

effects in the environment.

Hazardous to the aquatic environment, short-term

(acute)

: Not classified (Based on available data, the classification criteria are not met.)

Hazardous to the aquatic environment, long-term (chronic)

: Not classified (Based on available data, the classification criteria are not met.)

ethanediol (107-21-1)		
LC50 - Fish [1]	54700 mg/l 96 h	
EC50 - Crustacea [1]	41000 mg/l 48 h	
hydrogen sulphide (7783-06-4)		
LC50 - Fish [1]	> 0.029 mg/l 96 h	
EC50 - Crustacea [1]	0.12 mg/l 48 h	
ErC50 algae	1.87 mg/l 24 h	

12.2. Persistence and degradability

sulfur (7704-34-9)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

ethanediol (107-21-1)	
Partition coefficient n-octanol/water (Log Pow)	-1.36

12.4. Mobility in soil

No additional information available

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12.5. Results of PBT and vPvB assessment

ROOTSUL

PBT: not yet assessed

vPvB: not yet assessed

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods

Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations

Dispose in a safe manner in accordance with local/national regulations. Dispose of

contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Ecology - waste materials

: Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID /

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID n	umber			
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shippin	g name			
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard o	14.3. Transport hazard class(es)			
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

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Rail transport

Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
3(b)	ROOTSUL ; ethanediol	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
40.	hydrogen sulphide	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

For the following substances of this mixture a chemical safety assessment has been carried out:

ethanediol

2-methylisothiazol-3(2H)-one

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SECTION 16: Other information

Abbreviations and acronyms:			
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways		
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road		
EC50	Median effective concentration		
LC50	Median lethal concentration		
DMEL	Derived Minimal Effect level		
DNEL	Derived-No Effect Level		
IATA	International Air Transport Association		
IMDG	International Maritime Dangerous Goods		
NOAEL	No-Observed Adverse Effect Level		
PBT	Persistent Bioaccumulative Toxic		
PNEC	Predicted No-Effect Concentration		
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail		
OEL	Occupational Exposure Limit		
vPvB	Very Persistent and Very Bioaccumulative		

Data sources

: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. SDS EU format according to COMMISSION REGULATION (EU) 2020/878.

Other information

: Refer to the safety data sheet before handling or disposing.

Full text of H- and EUH-statements:			
Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2		
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3		
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3		
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4		
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1		
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1		
Eye Dam. 1	Serious eye damage/eye irritation, Category 1		
Flam. Gas 1A	Flammable gases, Category 1A		
H220	Extremely flammable gas.		
H280	Contains gas under pressure; may explode if heated.		
H301	Toxic if swallowed.		
H302	Harmful if swallowed.		
H311	Toxic in contact with skin.		
H314	Causes severe skin burns and eye damage.		
H315	Causes skin irritation.		
H317	May cause an allergic skin reaction.		
H318	Causes serious eye damage.		

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Full text of H- and EUH-statements:			
H330	Fatal if inhaled.		
H373	May cause damage to organs through prolonged or repeated exposure.		
H400	Very toxic to aquatic life.		
H410	Very toxic to aquatic life with long lasting effects.		
Press. Gas (Comp.)	Gases under pressure : Compressed gas		
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B		
Skin Irrit. 2	Skin corrosion/irritation, Category 2		
Skin Sens. 1	Skin sensitisation, Category 1		
Skin Sens. 1A	Skin sensitisation, category 1A		
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2		

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:				
Skin Sens. 1	H317	Calculation method		

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.