

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

1.1. Product identifier

Product form	: Substance
Trade name	: AGROSOLFO
Chemical name	: sulfur
UFI	: KP20-K0PC-000N-APDA
EC Index-No.	: 016-094-00-1
EC-No.	: 231-722-6
CAS-No.	: 7704-34-9
REACH registration No	: 01-2119487295-27
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

Industrial/Professional use spec	: For professional use only
Use of the substance/mixture	: Solid Inorganic Fertilizer based on micronutrients; CFP 1 (C) (I) (a) (i)

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

AZUFREIRA Y FERTILIZANTES PALLARES, S.A.U.
Av. Europa Parcela 1 – 7 (Pol.Ind. Constantí)
43120 Constantí (Tarragona)
España
T + 34 977 524 650 - F + 34 977 524 651
afepasa@afepasa.com - www.afepasa.com

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]

Skin Irrit. 2	H315
Full text of hazard classes, H- and EUH-statements: see section 16	

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP)



GHS07

Signal word (CLP)	: Warning
Hazard statements (CLP)	: H315 - Causes skin irritation.
Precautionary statements (CLP)	: P264 - Wash hands, forearms and face thoroughly after handling. P280 - Wear protective gloves, protective clothing, eye protection, face protection. P302+P352 - IF ON SKIN: Wash with plenty of soap and water.

AGROSOLFO

Safety Data Sheet

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

Extra phrases : Wash all protective clothing after use.
Do not contaminate water with the product or its container.
SP1: 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

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The substance is not 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

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	%
sulfur	CAS-No.: 7704-34-9 EC-No.: 231-722-6 EC Index-No.: 016-094-00-1 REACH-no: 01-2119487295-27	> 99.5

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Wash skin with plenty of water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact : Rinse immediately with plenty of water. Ensure adequate flushing of eyes by separating eyelids with the fingers. Obtain medical attention if pain, blinking or redness persists.
First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

Symptoms/effects after skin contact : Causes skin irritation.

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 : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
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 : Under fire conditions, hazardous fumes will be present. Carbon oxides (CO, CO₂).
Hydrogen sulfide. Sulphur oxides.

AGROSOLFO

Safety Data Sheet

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

5.3. Advice for firefighters

- Firefighting instructions : Evacuate area. Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

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

- Protective equipment : Wear recommended personal protective equipment.
- Emergency procedures : Evacuate unnecessary personnel.

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". Equip cleanup crew with proper protection.
- Emergency procedures : Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : On land, sweep or shovel into suitable containers. Minimise generation of dust. Store away from other materials.

6.4. Reference to other sections

See Section 8. Exposure controls/personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : The product can be sprayed. Avoid dust production.
- Precautions for safe handling : Wear proper protective equipment. Do not get in eyes, on skin, or on clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.
- Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands, forearms and face thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep only in the original container in a cool, well ventilated place away from: Unsuitable materials. Keep container closed when not in use.
- Incompatible products : Strong oxidizing agents. Strong bases. Strong acids.
- Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

7.3. Specific end use(s)

No additional information available.

AGROSOLFO

Safety Data Sheet

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

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

sulfur (7704-34-9)

PNEC (Oral)

PNEC oral (secondary poisoning)	0.22 mg/l
---------------------------------	-----------

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Provide local exhaust or general room ventilation to minimize exposure to dust. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

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:

Chemical goggles or safety glasses. Standard EN 166 - Personal eye-protection - specifications

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Standard EN 374 - Protective gloves against chemicals.

Other skin protection

Materials for protective clothing:

Wear suitable coveralls to prevent exposure to the skin

8.2.2.3. Respiratory protection

Respiratory protection:

Dust mask with particle filter. Wear appropriate mask

8.2.2.4. Thermal hazards

No additional information available

AGROSOLFO

Safety Data Sheet

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

8.2.3. Environmental exposure controls

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	: Solid
Colour	: Yellow.
Odour	: Characteristic.
Odour threshold	: Not available
Melting point	: 115 – 123 °C
Freezing point	: Not available
Boiling point	: 444 °C
Flammability	: Non flammable.
Explosive limits	: 35 – 1400 g/m ³ S powdery
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	: 207 °C
Auto-ignition temperature	: 232 °C EU A.16
Decomposition temperature	: Not available
pH	: Not available
pH solution	: Not available
Viscosity, kinematic	: Not applicable
Solubility	: Insoluble in water. Soluble in carbon disulfide and toluene (Insoluble in toluene: 0.3% max, according to ASTM D-4578).
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour Pressure 20°C	: Not available
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: Not available
Vapour density	: Not applicable
Particle size	: Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Explosion limits : 35 – 1400 g/m³ S powdery

9.2.2. Other safety characteristics

Other properties : Surface tension: 60.8 dinas/cm (120°C), Moisture: 0.3 % max , Heat of combustion: -11030 KJ/kg

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is stable at normal handling and storage conditions.

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

No polymerization. No dangerous reactions known under normal conditions of use. Sulfur is a strong reducing agent and it may generate explosions in contact with oxidizing agents. Acid gases, like sulfur dioxide or sulfur steam mist, may be produced during sulfur combustion in the absence of oxygen.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

AGROSOLFO

Safety Data Sheet

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

10.5. Incompatible materials

Strong oxidizers. Strong acids. Strong bases. Strong reducing agents.

10.6. Hazardous decomposition products

Combustion produces toxic gases. Hydrogen sulfide. Sulphur oxides. Fumes. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met.)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met.)
Acute toxicity (inhalation)	: 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
LC50 Inhalation - Rat (Dust/Mist)	5.43 mg/l/4h

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met.)
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met.)
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.)
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 d
NOAEL (dermal, rat/rabbit)	400 mg/kg bodyweight 28 d

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

sulfur (7704-34-9)	
NOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight/day
NOAEL (dermal, rat/rabbit, 90 days)	400 – 1000 mg/kg bodyweight/day

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

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

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.)

AGROSOLFO

Safety Data Sheet

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

12.2. Persistence and degradability

sulfur (7704-34-9)

Persistence and degradability

Once sulfur is released into the environment, is rapidly oxidized by bacteria, other microorganisms or spontaneously by the presence of oxygen, to become organic sulfur compounds. Sulfur is incorporated to the food chain by the action of the microorganism present in water and soil, through oxidation and reduction reactions allowing the assimilation of these compounds by higher plants and animals. Not established.

12.3. Bioaccumulative potential

sulfur (7704-34-9)

Bioaccumulative potential

Not established.

12.4. Mobility in soil

sulfur (7704-34-9)

Ecology - soil

Sulfur has, generally, a lifecycle and a mobility similar to nitrogen's, characteristic of those nutrients essential for cellular life development. It is not solubilized in water.

12.5. Results of PBT and vPvB assessment

sulfur (7704-34-9)

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. Dispose in a safe manner in accordance with local/national regulations.

Additional information : The use of incinerators is not recommended due to the occurrence of SO₂ during the combustion, toxic to human and environment.

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 number				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated

AGROSOLFO

Safety Data Sheet

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

ADR	IMDG	IATA	ADN	RID
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

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)

Not listed on REACH Annex XVII

REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

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)

AGROSOLFO

Safety Data Sheet

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

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

Chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes

Section	Changed item	Change	Comments
	Supersedes	Modified	
	Revision date	Modified	
	Issue date	Modified	
	Type of product	Added	
	UFI : Unique Formula Identifier	Added	
1.2	Use of the substance/mixture	Modified	
2.2	Extra phrases	Modified	

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
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
NOAEL	No-Observed Adverse Effect Level
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
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.

AGROSOLFO

Safety Data Sheet

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

Full text of H- and EUH-statements:

H315	Causes skin irritation.
Skin Irrit. 2	Skin corrosion/irritation, Category 2

Safety Data Sheet (SDS), EU

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.