

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

1.1. Product identifier

Product form : Mixture
Trade name : SOLFOUREA PALLARÉS

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 : Nitrogen fertilizer. Fertiliser. EC fertiliser

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

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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]

Not classified

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

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

EUH-statements : EUH210 - Safety data sheet available on request.

2.3. Other hazards

PBT: not yet assessed
vPvB: not yet assessed

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

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according to Regulation (EC) No. 1907/2006 (REACH)

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 (REACH-no) 01-2119487295-27	3.5 – 5	Skin Irrit. 2, H315

Full text of H-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.
First-aid measures after skin contact	: Wash skin with plenty of water.
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

No additional information available

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.
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).

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.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

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

Methods for cleaning up	: Mechanically recover the product.
Other information	: Dispose of materials or solid residues at an authorized site.

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6.4. Reference to other sections

See also 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. Wear personal protective equipment.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.
Incompatible materials : Strong bases. Strong acids.

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

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

urea (57-13-6)	
DNEL/DMEL (Workers)	
Acute - systemic effects, dermal	580 mg/kg bodyweight/day
Acute - systemic effects, inhalation	292 mg/m ³
Long-term - systemic effects, dermal	580 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	292 mg/m ³
DNEL/DMEL (General population)	
Acute - systemic effects, dermal	580 mg/kg bodyweight/day
Acute - systemic effects, inhalation	125 mg/m ³
Acute - systemic effects, oral	42 mg/kg bodyweight/day
Long-term - systemic effects, oral	42 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	125 mg/m ³
Long-term - systemic effects, dermal	580 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.047 mg/l

8.1.5. Control banding

No additional information available

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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 glasses

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, 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 when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Yellow.
Appearance	: Granular solid.
Odour	: Not available
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not applicable
Boiling point	: Not available
Flammability	: Non flammable.
Explosive limits	: Not applicable
Lower explosive limit (LEL)	: Not applicable
Upper explosive limit (UEL)	: Not applicable

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Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
pH	: Not available
pH solution	: Not available
Viscosity, kinematic	: Not applicable
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	: Not available
Relative density	: Not available
Vapour density	: Not applicable
Particle size	: Not available
Particle size distribution	: Not available
Particle shape	: Not available
Particle aspect ratio	: Not available
Particle aggregation state	: Not available
Particle agglomeration state	: Not available
Particle specific surface area	: Not available
Particle dustiness	: Not available

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.

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

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Strong bases. Strong acids.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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.)

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sulfur (7704-34-9)	
LD50 oral	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg bodyweight
LC50 Inhalation - Rat (Dust/Mist)	> 5.43 mg/l/4h

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met.)
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, subchronic, oral, rat	1000 mg/Kg (90 days)
NOAEL, subacute, Dermal, rat	400 mg/Kg (28 days)

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

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

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Viscosity, kinematic	Not applicable

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

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

sulfur (7704-34-9)	
LC50 - Fish [1]	> 5000 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	> 5000 ppm
NOEC chronic fish	9.3 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '28 d'

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

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12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

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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.

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
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

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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

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

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

sulfur

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
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
vPvB	Very Persistent and Very Bioaccumulative
PBT	Persistent Bioaccumulative Toxic
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail

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:

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

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EUH210

Safety data sheet available on request.

17: EXPOSURE SCENARIO

1. Use of Sulfur in Agrochemicals; professional

Section 1 Exposure Scenario Title: Sulfur	
Title	
Uses in Agrochemicals	
Use Descriptor	
Sector(s) of Use	22
Process Categories	1, 4, 8a, 8b, 11, 13 <i>Further information on the mapping and allocation of PROC codes is contained in Table 9.1</i>
Environmental Release Categories	8a,8b
Specific Environmental Release Category	ESVOC SpERC 8.11a.v1
Processes, tasks, activities covered	
Use as an agrochemical excipient for application by manual or machine spraying, smokes and fogging; including equipment clean-downs and disposal.	
Assessment Method	
See Section 3.	
Section 2 Operational conditions and risk management measures	
Section 2.1 Control of worker exposure	
Product characteristics	
Physical form of product	Solid at STP, liquid at elevated operating temperature, vapour pressure <0.5 kPa. OC29
Concentration of substance in product	Covers percentage substance in the product up to 100 % (unless stated differently). G13
Amount used	Not applicable
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently). G2
Human factors not influenced by risk management	Not applicable
Other Operational Conditions affecting exposure	Operation is carried out at elevated temperature (> 20°C above ambient temperature). OC7 . Assumes a good basic standard of occupational hygiene is implemented. G1
Contributing Scenarios	
Specific Risk Management Measures and Operating Conditions	
General measures (skin irritants) G19	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent / minimise exposures and to report any skin problems that may develop. E3 . Other skin protection measures such as impervious suits and face shields may be required during high dispersion activities which are likely to lead to substantial aerosol release e.g. spraying. E4 .
CS15 General exposures (closed systems)	No other specific measures identified. EI20
CS16 General exposures (open systems)	No other specific measures identified. EI20
CS14 Bulk transfers CS81 Dedicated facility	No other specific measures identified. EI20
CS10 Spraying	No other specific measures identified. EI20
CS4 Dipping, immersion and pouring	No other specific measures identified. EI20
CS39 Equipment Cleaning and Maintenance	No other specific measures identified. EI20
Additional information on the basis for the allocation of the identified OCs and RMMs is contained in Appendices 1 to 2	
Section 2.2 Control of environmental exposure	

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Not applicable
Section 3 Exposure Estimation
3.1. Health
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. G21 .
3.2. Environment
Not applicable
Section 4 Guidance to check compliance with the Exposure Scenario
4.1. Health
Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. G32 . Risk Management Measures are based on qualitative risk characterisation. G37 .
Available hazard data do not support the need for a DNEL to be established for other health effects. G36 . Users are advised to consider national Occupational Exposure Limits or other equivalent values. G38
Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23 .
4.2. Environment
Not applicable

2. Uses of Sulfur in Agrochemicals; consumer

Section 1 Exposure Scenario Title: Sulfur					
Title					
Use in Agrochemicals					
Use Descriptor					
Sector(s) of Use	22				
Product Categories	12,22,27 <i>Further information on the mapping and allocation of PC codes is contained in Table 1.</i>				
Environmental Release Categories	8a,8d				
Specific Environmental Release Category	ESVOC SpERC 8.11b.v1				
Processes, tasks, activities covered					
Covers the consumer use in agrochemicals in liquid and solid forms.					
Assessment Method					
See Section 3.					
Section 2 Operational conditions and risk management measures					
Section 2.1 Control of worker exposure					
Product characteristics					
Physical form of product	Solid at STP, liquid at elevated operating temperature, vapour pressure <0.5 kPa. OC29				
Concentration of substance in product	Unless otherwise stated, cover concentrations up to 100%. [ConsOC1].				
Amounts used	Unless otherwise stated, covers use amounts up to 37500g. [ConsOC2]. ; covers skin contact area up to 6600cm ² . [ConsOC5].				
Frequency and duration of use/exposure	Unless otherwise stated, covers use frequency up to 4 times per day [ConsOC4]. ; covers exposure up to 8 hours per event. [ConsOC14].				
Other Operational Conditions affecting exposure	Unless otherwise stated assumes use at ambient temperatures. [ConsOC15]. ; assumes use in a 20 m ³ room. [ConsOC11]. ; assumes use with typical ventilation. [ConsOC8].				
Product Category	Specific Risk Management Measures and Operating Conditions				
PC12:Fertilizers	<table border="1"> <tr> <td>OC</td> <td>Unless otherwise stated, covers concentrations up to 90%. [ConsOC1]. ; covers use up to 1 days/year[ConsOC3]. ; covers use up to 1 time/on day of use[ConsOC4]. ; covers skin contact area up to 857.50 cm². [ConsOC5]. ; for each use event, assumes swallowed amount of 0.3g [ConsOC13]. ; for each use event, covers use amounts up to 2500g. [ConsOC2]. ; covers outdoor use. [ConsOC12].</td> </tr> <tr> <td>RMM</td> <td>No specific RMMs identified beyond those OCs stated</td> </tr> </table>	OC	Unless otherwise stated, covers concentrations up to 90%. [ConsOC1]. ; covers use up to 1 days/year[ConsOC3]. ; covers use up to 1 time/on day of use[ConsOC4]. ; covers skin contact area up to 857.50 cm ² . [ConsOC5]. ; for each use event, assumes swallowed amount of 0.3g [ConsOC13]. ; for each use event, covers use amounts up to 2500g. [ConsOC2]. ; covers outdoor use. [ConsOC12].	RMM	No specific RMMs identified beyond those OCs stated
OC	Unless otherwise stated, covers concentrations up to 90%. [ConsOC1]. ; covers use up to 1 days/year[ConsOC3]. ; covers use up to 1 time/on day of use[ConsOC4]. ; covers skin contact area up to 857.50 cm ² . [ConsOC5]. ; for each use event, assumes swallowed amount of 0.3g [ConsOC13]. ; for each use event, covers use amounts up to 2500g. [ConsOC2]. ; covers outdoor use. [ConsOC12].				
RMM	No specific RMMs identified beyond those OCs stated				
PC22: Lawn and garden preparations, including	OC Products containing Sulfur in high percentages (assume 90%) are sold for				

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fertilizers		acidification of soil, to treat certain plant diseases (e.g. scab on potatoes) and as worm- deterrent. The products are provided as prill (pellets) in bags of 1 kg. Recommended application frequency is of the order of once per year. The exposure assessment is conducted using the <0.1 Pa band values of the ESIG consumer assessment tool (Appendix 1.c).
	RMM	No specific RMMs identified beyond those OCs stated
PC27_n: Plant protection products	OC	Unless otherwise stated, covers concentrations up to 90%. [ConsOC1]. ; covers use up to 1 days/year[ConsOC3]. ; covers use up to 1 time/on day of use[ConsOC4]. ; covers skin contact area up to 857.50 cm ² . [ConsOC5]. ; for each use event, assumes swallowed amount of 0.3g [ConsOC13]. ; for each use event, covers use amounts up to 2500g. [ConsOC2]. ; covers outdoor use. [ConsOC12]
	RMM	No specific RMMs identified beyond those OCs stated
In Additional information on the basis for the allocation of the identified OCs and RMMs is contained in Appendices 1 to 2		
Section 2.2 Control of environmental exposure		
Not applicable		
Section 3 Exposure Estimation		
3.1. Health		
The ECETOC TRA tool has been used to estimate consumer exposures, consistent with the content of ECETOC Report #107 and the Chapter R15 of the IR&CSA TGD. Where exposure determinants differ to these sources, then they are indicated. G42		
3.2. Environment		
Not applicable		
Section 4 Guidance to check compliance with the Exposure Scenario		
4.1. Health		
Predicted exposures are not expected to exceed the applicable consumer reference values when the operational conditions/risk management measures given in section 2 are implemented. G39 . Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23 .		
4.2. Environment		
Not applicable		

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.