

**AFEPASA**

AZUFRE Y FERTILIZANTES PALLARES, S.A.

MATERIAL SAFETY DATA SHEET
AFEPASA MICRONIZED SULPHUR 80% WP

Date last revision: 28 February 2013

1. IDENTIFICATION OF THE PRODUCT AND THE COMPANY

AZUFRE Y FERTILIZANTES PALLARES, S.A. Avenida Europa 1 – 7 (Pol.Ind. Constanti) 43120 CONSTANTÍ – TARRAGONA - SPAIN TEL: + 34 977 524 650 FAX: + 34 977 524 651 www.afepasa.com	Product name: AFEPASA MICRONIZED SULPHUR 80% WP Chemical name: Sulphur Formula: S CAS Nº: 7704-34-9
National Institute of Toxicology; Emergency telephone nº: 91-5620420	REACH reg. Nº: 01-2119487295-27-XXXX
Identified uses: Agriculture (fungicide, acaricide)	CE (EINECS) Nº: 231-722-6

2. HAZARDS IDENTIFICATION**Classification of product:** Irritating**Labelling:****Hazard Symbol:****Risk phrases:**

R36/37/38 (Irritating to eyes, respiratory system and skin)

Security warnings:

S2: Keep out of reach of children

S13: Keep away from food, drink and animal foodstuffs

S22: Do not breathe dust

S24/25: Avoid contact with eyes and skin

S41: In case of fire and/or explosion do not breathe fumes

S45: In case of accident or if you feel unwell seek medical advice immediately (show the label where possible)

SP1: Do not contaminate waterways with the product or its container (Do not clean application equipment near surface water / Avoid contamination via drains from farmyards or roads)

In order to prevent risks for humans and the environment, follow the instructions for use

3. COMPOSITION / INFORMATION ABOUT THE COMPONENTS**General composition:** Sulphur 80% p/p WP**Type of formulation:** Wettable Powder (WP)

Dangerous components:	Range %	Classification	S Phrases
Sulphur Nº CAS: 7704-34-9 Nº CE (EINECS): 231-722-6	80%	Xi; R38	S(2-)-46

4. FIRST-AID MEASURES**Inhalation:** Take the victim to an area with fresh air and get medical attention.**Ingestion / aspiration:** Seek medical attention immediately and if possible show the label or packaging.**Skin contact:** Wash the affected zones with plenty of water for at least 15 minutes.**Eye contact:** Wash with plenty of water for at least 15 minutes. Seek medical attention.**General measures:** In case of an accident or discomfort, seek medical attention immediately (if possible show the label or packaging).**AFEPASA MICRONIZED SULPHUR 80% WP**

Date: 28 February 2013



5. FIRE-FIGHTING MEASURES

Modes of extinction:	Pulverized water spray, foam, carbon dioxide, powder.
Contraindications:	Sulphur is highly reductive and contact with oxidizing agents can provoke explosions.
Combustion products:	During the combustion of sulphur acid gases are produced, like sulphur dioxide or clouds of sulphur vapour / hydrogen sulphur lacking oxygen.
Special fire-fighting measures:	Prevent putting out the fire with strong or direct spurts of water as this might disperse the sulphur and worsen the situation.
Special dangers:	When the product is melted, irritating gases can be released. These gases can burn in the presence of heat centres or sources of ignition and provoke an ignition of the melted sulphur.
Protection equipment:	Independent respiration equipment. Heat resistant suits, gloves and protective glasses.

6. ACCIDENTAL SPILL MEASURES

Personal precautions:	Prevent contact with and inhalation of the spilt material. In case of a fire, do not approach the fire without personal protection equipment. If the spill produces powder clouds, masks are recommended.
Environmental precautions:	Prevent that the spilt material enters sewers or drains.
Detoxication and cleaning:	In case of a spill, spray water on the spill to prevent any possible ignition and suck the product into a closed container according to the existing security measures.
Personal protection:	The use of glasses and gloves is recommended.

7. HANDLING AND STORAGE

Handling

General precautions: Prevent flames or sparks. Use protection gloves and glasses. Keep away from oxidizing agents. Prevent the accumulation of powder in the air. Use an aspiration and air filtration system to eliminate the powder of the work environment. Do not smoke while handling. Wash thoroughly with soap and water after handling.

Specific conditions: The installation of secure electrical systems that do not generate sparks is a highly recommended preventive measure.

Storage

Temperature and decomposition products: Not relevant

Dangerous reactions: Upon contact with oxidizing materials sulphur can provoke explosions.

Storage conditions: Store the product in a cool and well ventilated area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Do not eat, drink or smoke in the storage area. Do not weld or perform any other activity that might produce sparks or flames.

Incompatible materials: Oxidizing substances. Products with basic characteristics or those that might liberate basic substances (for example amines, ammonia, etc)

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protection gear:

Respiratory	Mask for respiratory protection, certified for pulverized products
Ocular	Security glasses.
Cutaneous	Impermeable gloves
Skin and body	Adequate work clothing to prevent body exposure with the product.

General precautions: Prevent inhalation and contact with skin and eyes.

Hygienic practices at work:

Prohibit the consumption and storage of food in the handling area of these products. Wash hands with water and soap after handling the product. Where the risk of inhalation exists adequate protection measures should be installed.

Exposure controls: During the combustion of sulphur, sulphur dioxide and eventually hydrogen sulphur (toxic gases).

TLV/TWA (SO₂) (ACGIH): 2ppm

TLV/STEL (SO₂) (ACGIH): 5ppm

TLV/TWA (SH₂) (ACGIH): 10ppm

TLV/STEL (SH₂) (ACGIH): 15ppm

AFEPASA MICRONIZED SULPHUR 80% WP

Date: 28 February 2013



9. PHYSICAL AND CHEMICAL PROPERTIES

Aspect: Solid powder	Colour: Light brown
pH (1% solution): 4,85 at 22 °C	Odour: Characteristic
Explosive properties: Not explosive (EEC MT A14)	Vapour pressure: Not Relevant
Inflammation point/Flammability: Not flammable (EEC MT A10)	Oxidizing properties: Not oxidizing (EEC MT A17)
Auto-ignition temperature: 234 ° C (EEC MT A16)	Hydro-solubility: Soluble
Apparent compacted density: 0.60 g/mL (CIPAC MT 33)	
Other relevant data: Richness S: 80 %	Suspensibility: min. 80 %

10. STABILITY AND REACTIVITY

Stability: Stable at room temperature.	Conditions to avoid: Sparks or flames. Contact with basic substances
Incompatibilities: Materials that can be oxidative	Hazardous decomposition products: SH ₂ SO ₂
Risk of polymerization: Not Relevant	Conditions to avoid: Not Relevant

11. TOXICOLOGICAL INFORMATION

Critical toxicity: Oral LC50 (rat) > 2000 mg/kg bw	Irritation: Irritating for the eyes, the skin and the respiratory system
Dermal LD50 (rat) > 2000 mg/kg bw	Sensibilization: Not sensibilizing
Carcinogenicity: Does not show	
Teratogenicity: Does not show.	
Medical conditions likely to be aggravated by exposure: Persons with respiratory failure are more at risk (bronchitis, asthma etc.)	

12. ECOLOGICAL INFORMATION

Form and potentially contaminating:

Persistence and degradability: When released into the environment it oxidizes rapidly, either through bacteria or other micro-organisms or spontaneously through the presence of oxygen, forming organic compounds of sulphur. In the soil and in the water there are micro-organisms present which permit by means of oxidizing and reduction reactions the assimilation of other compounds by plants and other superior animals, thus incorporating into the tropic food chain.

Mobility/bioaccumulation: In general sulphur shows the same biological cycle and mobility as nitrogen, characteristic nutrients essential for the development of cellular life. It is not soluble in water.

Effects on the environment: Not classified. It is harmful for aquatic life if traces of hydrogen sulphide are generated. It can cause phytotoxicity, soil, water and air contamination and toxicity for humans and animals in high concentrations. TLM: 10000 ppm/96hr/fish mosquito/flowing water.

13. DISPOSAL CONSIDERATIONS

Methods of disposal: It is not recommended to use incinerators as during the combustion SO₂ is produced which is toxic for humans and the environment. It is recommended to dispose of the residues following the current legal local/national regulations or to send the residues to a company authorized in the disposal of such residues. The packaging, which is a dangerous residue, must be disposed of by its end-user at one of the reception areas of the integrated management system for packagings.



14. TRANSPORT INFORMATION

Special precautions: Transport in well-sealed containers. Prevent physical disturbances and keep away from heat sources and from substances of a basic character.

Name for transport: SULPHUR (solid) Road –ADR: 4.1 GE III Limited/exempted quantities: 5 kg / E1	Special Disposition: 242	Identification Nº: 40 ONU nº: 1350 Label: 4.1.
Name for transport: SULPHUR (solid) Air –IATA: 4.1 GE III Limited/exempted quantities: Y419 / 10 KG	Passengers/Cargo airplanes: 419 NET quantity packaging: 20 kg Only Cargo airplanes: 420 NET quantity packaging: 100 kg Special Disposition: A105	Identification Nº: 40 ONU nº: 1350 Label: 4.1.
Name for transport: SULPHUR (solid) Maritime –IMDG/IMO: 4.1 GE III Limited/exempted quantities: 5 kg	Special Disposition: 242	Identification Nº: 40 ONU nº: 1350 Label: 4.1.
Name for transport: SULPHUR (solid) Rail Road –RID: 4.1 GE III Limited/exempted quantities: 5 kg / E1	Special Disposition: 242	Identification Nº: 40 ONU nº: 1350 Label: 4.1.

15. REGULATORY INFORMATION

Classification of the active substance(s):

Sulphur : Xi, R38

Classification of the formulated product (Regulation 1999/45/EC):

Xi, R36/37/38

16. OTHER INFORMATION

Risk phrases included in this document (heading 3): R38 (Irritating for the skin)

Data bases consulted:

EINECS: European Inventory of Existing Commercial Substances.

HSDB: US National Library of Medicine.

TSCA: Toxic Substances Control Act, US Environmental Protection Agency

RTECS: US Department. of Health & Human Services

Regulations consulted:

Regulation CE no. 1907/2006 concerning registration, evaluation, authorization and restriction of chemical substances and preparations (REACH)

Dir. 67/548/CEE of hazardous substances (including corrections and adaptations in force).

Dir. 1999/45/CE of hazardous preparations (including corrections and adaptations in force).

Dir. 91/689/CEE of hazardous residues / Dir. 91/156/CEE of the management of residues

Royal Decree 363/95: Regulations on the notification of new substances and on classification, packaging and labelling of hazardous substances.

Royal Decree 255/2003: Regulations on classification, packaging and labelling of hazardous preparations.

European Agreement on International Transport of Dangerous Goods by Road (ADR).

Regulation concerning the International Transport of Dangerous Goods by Rail (RID).

International Maritime Dangerous Goods (IMDG).

Regulations of the International Air Transport Association (IATA) concerning the transport of Dangerous Goods by Air.

GLOSSARY:

CAS: Chemical Abstract Service

IARC: International Agency for Research on Cancer

TDL₀: Toxic Dose Minimum

TLV: Threshold Level Value

TWA: Time Weighted Average

STEL: Short Time Exposure Limit

REL: Reference Exposure Limit

PEL: Permissible Exposure Level

VLA: Environmental Value Level

LD₅₀: Lethal Dose Average

LC₅₀: Lethal Concentration Average

LDL₀: Lethal Dose Minimum

BEI: Biological Exposure Index

EC₅₀: Effective Concentration Average

IC₅₀: Inhibiting Concentration Average

BOD: Basic Oxygen Demand

NA: Not Applicable

Changes concerning the last revision: Update REACH regulation

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.