

**Safety Data Sheet**  
**MICRONISED SULPHUR**

Safety Data Sheet dated: 10/27/2022 - version 1



**1. Identification**

**GHS Product Identifier**

Mixture identification:

Trade name: MICRONISED SULPHUR 90, ZOLFO 90 WP, GOFRACOL 90%

**Recommended use of the chemical and restrictions on use**

Recommended use: FERTILIZER

FOR INDUSTRIAL USE

FOR PROFESSIONAL USE

Uses advised against: N.A.

**Supplier's details**

Company:

ESSECO S.r.l. Via San Cassiano 99

28069 - Trecate (NO)

Italy

Phone: +39-0321-7901

Competent person responsible for the safety data sheet: sds@esseco.it

**Emergency phone number**

Esseco - Phone n. +39-0321-7901

**2. Hazard identification**

**Classification of the substance or mixture**

The product is not classified as dangerous according to GHS - Seventh revised edition.

Adverse physicochemical, human health and environmental effects:

No other hazards

**GHS label elements, including precautionary statements**

The product is not classified as dangerous according to GHS - Seventh revised edition.

**Other hazards which do not result in a classification**

No other hazards

**3. Composition/information on ingredients**

**Substances**

N.A.

**Mixtures**

Mixture identification: MICRONISED SULPHUR

**Hazardous components within the meaning of GHS and related classification:**

Qty	Name	Ident. Numb.	Classification	Registration Number
≥ 90 - < 100 %	SULFUR	CAS:7704-34-9 EC:231-722-6 Index:016-094-00-1	Skin Irrit. 2, H315	01- 2119487295 -27-XXXX

**4. First-aid measures**

**Description of necessary first-aid measures**

In case of skin contact:

Wash with plenty of water and soap.

In case of persistent skin irritation consult a doctor.

In case of eyes contact:

Wash with plenty of water.

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and hazard labelling.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

**Most important symptoms/effects, acute and delayed**

Data not available.

**Indication of immediate medical attention and special treatment needed, if necessary**

Treatment: Treat symptomatically.

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**5. Fire-fighting measures**

**Extinguishing media**

**Suitable extinguishing media:**

Foam, extinguishing powder, sprinkling water jet, carbon dioxide.  
According to the materials involved in the fire.

**Unsuitable extinguishing media:**

None in particular.

**Special hazards arising from the chemical**

Do not inhale explosion and combustion gases.

Hazardous combustion products: Combustion products include sulphur oxides ( SO<sub>2</sub> and SO<sub>3</sub> ) and Hydrogen sulphide H<sub>2</sub>S.

Explosive properties: No (EEC MT A17; CAS 7704-34-9)

Oxidizing properties: No (EEC MT A14; CAS 7704-34-9)

**Special protective actions for fire-fighters**

Wear suitable protective clothing (helmet, protective clothings, goggles, fire resistant gloves, boots) and protect respiratory organs (self contained breathing apparatus).

Use suitable breathing apparatus .

Move undamaged containers from immediate hazard area if it can be done safely.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

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**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**

For non emergency personnel:

Avoid direct contact with released material

Keep non-involved personnel away from the area of spillage. Alert emergency personnel

For emergency responders:

Avoid direct contact with released material

Stop leak if safe to do so.

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

**Environmental precautions**

Stop or contain leak at the source, if safe to do so

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

If the product has escaped into a water course, into the drainage system, or has contaminated the ground or vegetation, notify the competent authorities.

**Methods and material for containment and cleaning up**

Collect free product with suitable mechanical means.

Dispose of the collected material in accordance with the current regulations.

See also section 8 and 13

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**7. Handling and storage**

**Precautions for safe handling**

Avoid contact with skin and eyes

Do not breathe dust. See, too, paragraph 8 below.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

**Conditions for safe storage, including any incompatibilities**

Keep away from food, drink and feed.

Keep containers tightly closed and properly labelled.

Incompatible materials:

Keep away from oxidizing agents

See subsection 10

Instructions as regards storage premises:

Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.

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Avoid accumulating electrostatic charge.  
Adequately ventilated premises.

## 8. Exposure controls/personal protection

### Control parameters

#### Community Occupational Exposure Limits (OEL)

	OEL Type	Long Term mg/m <sup>3</sup>	Long Term ppm	Short Term mg/m <sup>3</sup>	Short Term ppm	Notes
SULFUR CAS: 7704-34-9	ACGIH	3.000				respirable fraction
	ACGIH	10.000				inhalable

#### Appropriate engineering controls:

N.A.

#### Individual protection measures, such as personal protective equipment (PPE)

Individual protection measures:

Personal protective equipment selections vary based on potential exposure conditions and working conditions.

The final choice of protective equipment will depend upon a risk assessment.

Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

Please see both sections 5 and 6 for information about personal protective equipment to be worn in an emergency (e.g.: fire or unintentional release of the substance).

Eye protection:

Chemical risk goggles (with side protection).

Technical reference standard: UNI EN 166

Protection for skin:

Chemical protection clothing.

Protection for hands:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Glove suitability and breakthrough time will differ depending on the specific use conditions.

Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions.

Wear suitable gloves tested to EN374.

Respiratory protection:

Depending on the potential for exposure, select respiratory protective equipment suitable for the specific conditions of use and in compliance with current legislation.

Particle filter device (DIN EN 143).

Thermal Hazards:

N.A.

Environmental exposure controls:

Comply with the applicable environmental regulations limiting discharge to air, water and soil.

## 9. Physical and chemical properties

Physical State: Solid

Appearance and colour: Solid Light brown

Odour: Like: Sulphur

Odour threshold: N.A.

pH: N.A.

Melting point / freezing point: 113 - 120 °C (101,3 kPa; ; OECD 102; CAS 7704-34-9)

Initial boiling point and boiling range: 444,6 °C (101,3 kPa; CAS 7704-34-9)

Flash point: 218 °C (424 °F) (EEC A9; CAS 7704-34-9)

Evaporation rate: N.A.

Flammability (Solid, Gas) N.A.

Upper/lower flammability or explosive limits: N.A.

Vapour pressure: N.A.

Vapour density: N.A.

Relative density: 0.60 g/mL (+-10%) CIPAC MT 33 - tap density

Solubility in water: Insoluble

Solubility in oil: N.A.

Partition coefficient (n-octanol/water): N.A.

Auto-ignition temperature: N.A.

Decomposition temperature: N.A.

## 10. Stability and reactivity

### Reactivity

Stable under normal conditions.

### Chemical stability

Stable under normal conditions.

### Possibility of hazardous reactions

Stable under normal conditions.

### Conditions to avoid

Stable under normal condition. Keep away from heat and direct sunlight.

### Incompatible materials

Acids, alkalis, halogenated compounds, oxidants

### Hazardous decomposition products

Toxic gases. Sulphur dioxide.

## 11. Toxicological information

### Information on toxicological effects

#### Toxicological Information of the Preparation

a) acute toxicity	Not classified
	Based on available data, the classification criteria are not met
b) skin corrosion/irritation	Not classified
	Based on available data, the classification criteria are not met
c) serious eye damage/irritation	Not classified
	Based on available data, the classification criteria are not met
d) respiratory or skin sensitisation	Not classified
	Based on available data, the classification criteria are not met
e) germ cell mutagenicity	Not classified
	Based on available data, the classification criteria are not met
f) carcinogenicity	Not classified
	Based on available data, the classification criteria are not met
g) reproductive toxicity	Not classified
	Based on available data, the classification criteria are not met
h) STOT-single exposure	Not classified
	Based on available data, the classification criteria are not met
i) STOT-repeated exposure	Not classified
	Based on available data, the classification criteria are not met
j) aspiration hazard	Not classified
	Based on available data, the classification criteria are not met

#### Toxicological information on main components of the mixture:

SULFUR	a) acute toxicity	LC50 Inhalation Rat $\geq$ 5.43 mg/l 4h	OECD 403
		LD50 Oral Rat $\geq$ 2000 24-72 h	OECD 401
		LD50 Skin Rat $\geq$ 2000 24-72 h	EPA OPP 81-2
	b) skin corrosion/irritation	Skin Irritant Positive	OECD 404
	c) serious eye damage/irritation	Eye Irritant No	OECD 405
	d) respiratory or skin sensitisation	Skin Sensitization Negative	OECD 406
	e) germ cell mutagenicity	Mutagenesis Negative	OECD 471 - Ames test
	i) STOT-repeated exposure	No Observed Adverse Effect Level Oral Rat 1000 mg/kg 90 days	OECD 408

## 12. Ecological information

### Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

#### List of Eco-Toxicological properties of the product

Not classified for environmental hazards.

No data available for the product

#### List of Eco-Toxicological properties of the components

Component	Ident. Numb.	Ecotox Data
SULFUR	CAS: 7704-34-9 - EINECS: 231-722-6 - INDEX: 016-094-00-1	a) Aquatic acute toxicity : NOEC Algae > 0.005 mg/l 72h OECD 201  a) Aquatic acute toxicity : EC50 Daphnia > 5 µg/L 48h OECD 202 b) Aquatic chronic toxicity : NOEC Daphnia > 100 mg/l 504h OECD 211

#### Persistence and degradability

N.A.

#### Bioaccumulative potential

N.A.

#### Mobility in soil

N.A.

#### Other adverse effects

N.A.

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### 13. Disposal considerations

#### Disposal methods

Recover if possible. In so doing, comply with the local and national regulations currently in force.

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### 14. Transport information

Not classified as dangerous in the meaning of transport regulations.

#### UN number

N.A.

#### UN proper shipping name

N.A.

#### Transport hazard class(es)

N.A.

#### Packing group, if applicable

N.A.

#### Environmental hazards

N.A.

#### Special precautions for user

N.A.

Road and Rail (ADR-RID):

N.A.

Air (IATA):

N.A.

Sea (IMDG):

N.A.

#### Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

N.A.

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### 15. Regulatory information

#### Safety, health and environmental regulations specific for the product in question

This Safety Data Sheet has been prepared according to the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), Seventh revised edition.

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### 16. Other information

Code	Description
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H315 Causes skin irritation.

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.

IMDG: International Maritime Code for Dangerous Goods.

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

CLP: Classification, Labeling, Packaging.

EINECS: European Inventory of Existing Commercial Chemical Substances.

INCI: International Nomenclature of Cosmetic Ingredients.

CAS: Chemical Abstracts Service (division of the American Chemical Society).

GefStoffVO: Ordinance on Hazardous Substances, Germany.

LC50: Lethal concentration, for 50 percent of test population.

LD50: Lethal dose, for 50 percent of test population.

DNEL: Derived No Effect Level.

PNEC: Predicted No Effect Concentration.

TLV: Threshold Limiting Value.

TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).

STEL: Short Term Exposure limit.

STOT: Specific Target Organ Toxicity.

WGK: German Water Hazard Class.

KSt: Explosion coefficient.