Safety Data Sheet

According to Annex II to REACH - Regulation 2020/878

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

1.1. Product identifier

Product name **ZOLFO SUPER BRIGHT-SULPHUR 98.5 DP-S 100**

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

Intended use **Phytosanitary**

1.3. Details of the supplier of the safety data sheet

Name	**S.T.I. SOLFOTECNICA ITALIANA S.p.A.**
Full address (head office)	**Via Matteotti, 16 – 48121 RAVENNA**
Full address (operational headquarters)	**Via Torricelli, 2 – 48010 COTIGNOLA (RA)**
District and Country	**Italy**
	tel. +39 0545 992455
	fax +39 0545 40270
e-mail address of the competent person responsible for the Safety Data Sheet	**msds@solfotecnica.com**

1.4. Emergency telephone number

For urgent inquiries refer to **IRELAND: National Poisons Information Centre (NPIC): +353 1 8092166**
MALTA: Medicines & poisons info Office 112

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Physico-chemical hazards: the product is not classified for this hazard class.
Health hazards: the product causes skin irritation.
Environmental hazards: the product is not classified for this hazard class

Hazard classification and indication:

Skin irritation, category 2	H315	Causes skin irritation.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H315 Causes skin irritation.

Precautionary statements:

P101	If medical advice is needed, have product container or label at hand.
P280	Wear protective gloves.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P332+P313	If skin irritation occurs: Get medical advice.

Additional labeling information

- Composition

g 100 of product contains: Pure Sulfur g 93.03 (Selenium-free); Coformulants q.b. to 100

- Production Workshop:

STI Solfotecnica Italiana SpA - Cotignola (RA) Tel. 0545 992455

EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.
The product does not contain substances with endocrine disrupting properties in concentration ≥ 0.1%.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	Concentration %	Classification 1272/2008 (CLP)	Specific concentration limits 1272/2008 (CLP)
Sulfur			
CAS 7704-34-9 EC 231-722-6 INDEX 016-094-00-1 REACH Reg. 01-2119487295-27-XXXX	90,0 - 99,5	Skin Irrit. 2 H315	*Not applicable*
AMORPHOUS SILICATE HYDRATE			
CAS 7631-86-9 EC 231-545-4 INDEX - REACH Reg. 01-2119379499-16-XXXX	0,1 - 0,5	Substance with a community workplace exposure limit.	*Not applicable*

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.
INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

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

Contact with the product may cause skin irritation and slight eye irritation. In molten state, may cause. On inhalation, may cause irritation of the upper respiratory tract. In case of ingestion, it has a mild laxative effect.

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

Treat symptomatically. Consult a doctor.

SECTION 5. Firefighting measures

5.1. Extinguishing media
SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use direct water.

5.2. Special hazards arising from the substance or mixture
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Avoid breathing combustion products. As result of thermal degradation, sulfur oxide and hydrogen sulfide fumes can develop.

5.3. Advice for firefighters
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
FOR NON-EMERGENCY PERSONNEL
Alert the personnel in charge of managing such emergencies. Move away from the accident area, if you are not equipped with the personal protective equipment listed in Section 8.

FOR EMERGENCY RESPONDERS
Move all inadequately equipped personnel away to deal with the emergency.
Wear personal protective equipment as set forth in section 8 of the safety data sheet in order to prevent contaminating skin, eyes and personal clothing.
Stop the leak if there is no danger.
Allow workers to access the area affected by the accident only after appropriate decontamination is completed. Aerate the premises affected by the accident.

Special requirements:
do not contaminate water with the product or its container

Special requirements:
use dust mask and goggles when using the product; avoid working in the treated area after rainfall; wear suitable protective clothing and gloves in order to avoid direct skin contact, from previously treated vegetation.

MEDICAL INFORMATION:
In case of intoxication, call your doctor for usual first aid.

FEATURES
TOPAZIO is a fungicide for dry powdery treatments, the product finds specific application in the fight against White Mal Disease, which it succeeds in preventing and combating comprehensively due to its high purity and fineness of processing.

6.2. Environmental precautions
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up
Collect the leaked product and place it in containers for recovery or disposal. If there are no contraindications, use jets of water to eliminate product residues. Make sure the leakage site is well aired. Evaluate the compatibility of the container to be used, by checking section 10. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling
Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid to breath dust.

DOSI E MODALITA' DI IMPIEGO
It is preferable to carry out treatments in the early morning hours to promote better adhesion of the powder to the crops.
Dust can be spread on crops with common dusting equipment.

Grapevine: against powdery mildew
- Carry out a first treatment when shoots measure 5 to 10 cm at a dose of 25-30 kg/Ha
- A second treatment at the time of flowering, again at a dose of 25-30 kg/Ha
- Finally another 2-3 treatments at well-formed berries from July onward, with gradually decreasing doses up to 15-20 kg/Ha.

Pome and stone fruit: against White Mal.
Carry out pre- and post-blossom treatments at a dose of 25-30 kg/Ha

Tomato:
against Mal Bianco, intervene throughout the year whenever conditions favorable to the development of the disease occur at a dose of 25-30 kg/Ha

Strawberry: against Powdery mildew
Intervene throughout the year whenever conditions favorable to the development of the disease occur at a dose of 25-30 kg/Ha

Vegetable: against Powdery mildew
Intervene throughout the year whenever conditions favorable to the development of the disease occur at a dose of 25-30 kg/Ha

Florals and Ornamentals: against Powdery mildew
Intervene throughout the year whenever conditions favorable to the development of the disease occur at a dose of 25-30 kg/Ha

7.2. Conditions for safe storage, including any incompatibilities
Store only in the original container. Store containers unopened, in a well-ventilated place, out of direct sunlight. Store containers away from any incompatible materials, checking Section 10. Store only in the original container or in a container suitable for the type of product (suitable materials = carbon steel and concrete).

COMPATIBILITY.
It is recommended not to use the product in mixture with lime, white oils. The product should be used at least three weeks after the use of mineral oils and Captane. In case of mixtures with other formulations, the longest deficiency period must be observed. The precautionary rules prescribed for more toxic products must also be observed. Should cases of intoxication occur, inform the doctor of the completed mixing.

PHYTOTOXICITY.
The product may cause harm to the following cultivars:

Apples: Black Ben Davis, Black Stayman, White Calvilla, Commerce, Golden Delicious, Jonathan, Emperor, Renetta, Rome Beauty , Stayman Red, Winesap.
Pears: Buona Luigia D'Avranches, Countess of Paris, Kaiser Alexander, Olivier de Serres, William, Doyenne du Comité.
Vine: Sangiovese.

Suspend treatments 5 days before harvest.

7.3. Specific end use(s)
No specific end uses are intended other than the relevant uses set out in Section 1.2 of this safety data sheet.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

DEU	Deutschland	Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte.

		MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56
EST	Eesti	Ohtlike kemikaalide ja neid sisaldavate materjalide kasutamise töötervishoiu ja tööohutuse nõuded ning töökeskkonna keemiliste ohutegurite piirnormid [RT I, 17.10.2019, 1 - jõust. 17.01.2020]
EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.

AMORPHOUS SILICATE HYDRATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm		
AGW	DEU	4				INHAL	
MAK	DEU	4				INHAL	
TLV	EST	2					
OEL	EU	0,1				RESP	* Crystalline silica powder

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation								4 mg/m3

Legend:
(C) = CEILING; INHAL = Inhalable Fraction; RESP = Respirable Fraction; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available; NEA = no exposure expected; NPI = no hazard identified; LOW = low hazard; MED = medium hazard; HIGH = high hazard.

During the risk assessment process, it is essential to take into consideration the ACGIH occupational exposure levels for inert particulate not otherwise classified (PNOC respirable fraction: 3 mg/m3; PNOC inhalable fraction: 10 mg/m3). For values above these limits, use a P type filter, whose class (1, 2 or 3) must be chosen according to the outcome of risk assessment.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.

HAND PROTECTION
In the case of prolonged contact with the product, protect the hands with type C gloves (see standard EN 374).
Work glove material must be chosen according to the use process and the products that may form. Latex gloves may cause sensitivity reactions.

SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION
Wear airtight protective goggles (see standard EN 166). Provide an emergency shower with face and eye wash station.

RESPIRATORY PROTECTION
Use a type P filtering facemask, whose class (1, 2 or 3) and effective need, must be defined according to the outcome of risk assessment (see standard EN 149).

ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	Solid Powder	
Colour	Yellow	
Odour	Slightly sulphurous	
Melting point / freezing point	112.9 - 119 °C	
Initial boiling point	444,6 °C	
Flammability	not flammable	
Lower explosive limit	35 g/m3	Flammability limit
Upper explosive limit	1400 g/m3	Flammability limit
Flash point	207 °C (layer); 190 °C (dust cloud)	
Auto-ignition temperature	255 °C	
Decomposition temperature	not available	
pH	Not applicable (the product is solid)	
Kinematic viscosity	Not applicable (the product is solid)	
Solubility	Insoluble in water, soluble in carbon disulfide, carbon tetrachloride, toluene, xylene	
Partition coefficient: n-octanol/water	Non applicabile (il prodotto è una miscela	
Vapour pressure	3,96 x 10-6 mmHg	
Density and/or relative density	2,07	
Relative vapour density	not available	
Particle characteristics	not available	

9.2. Other information

9.2.1. Information with regard to physical hazard classes
Information not available

9.2.2. Other safety characteristics

Explosive properties	Not applicable (absence of chemical groups associated with explosive properties in accordance with the provisions of Annex I, Part 2, chap. 2.1.4.3 of reg. (EC) 1272/2008 - CLP)
Oxidising properties	Not applicable (absence of the requirements related to the presence of atoms and / or chemical bonds associated with oxidizing properties in the molecules of the components in accordance with the provisions of Annex I, Part 2, 2.13.4 of Regulation (EC) 1272/2008 - CLP).

SECTION 10. Stability and reactivity

10.1. Reactivity
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions
In contact with oxidizing agents strong oxidizing agents, the product can form explosive mixtures.

10.4. Conditions to avoid
Avoid exposure to moisture and direct sunlight. Keep away from heat, sparks, static electricity or flame.

10.5. Incompatible materials
Strong oxidizing agents.

10.6. Hazardous decomposition products
As result of thermal degradation, sulfur oxide and hydrogen sulfide fumes can develop.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

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

Metabolism, toxicokinetics, mechanism of action and other information
Information not available

Information on likely routes of exposure
Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure
Information not available

Interactive effects
Information not available

ACUTE TOXICITY
On the basis of available data and in view of the classification criteria of Annex I, Part 3 of (EC) Reg. 1272/2008 as amended, the product is not classified for this hazard class.

ATE (Inhalation) of the mixture:	Not classified (no significant component)
ATE (Oral) of the mixture:	Not classified (no significant component)
ATE (Dermal) of the mixture:	Not classified (no significant component)

SKIN CORROSION / IRRITATION
On the basis of available data and in view of the classification criteria set forth in table 3.2.3 of Annex I of (EC) Reg. 1272/2008 as amended, the product is classified as ***Skin irrit.2; H315***.

SERIOUS EYE DAMAGE / IRRITATION
On the basis of available data and in view of the classification criteria set forth in table 3.3.3 of Annex I of (EC) Reg. 1272/2008 as amended, the product is not classified for this hazard class.

RESPIRATORY OR SKIN SENSITISATION
On the basis of available data and in view of the classification criteria of Annex I, Part 3 of (EC) Reg. 1272/2008 as amended, the product is not classified for this hazard class.

GERM CELL MUTAGENICITY
On the basis of available data and in view of the classification criteria of Annex I, Part 3 of (EC) Reg. 1272/2008 as amended, the product is not classified for this hazard class.

CARCINOGENICITY
On the basis of available data and in view of the classification criteria of Annex I, Part 3 of (EC) Reg. 1272/2008 as amended, the product is not classified for this hazard class.

REPRODUCTIVE TOXICITY
On the basis of available data and in view of the classification criteria of Annex I, Part 3 of (EC) Reg. 1272/2008 as amended, the product is not classified for this hazard class.

STOT - SINGLE EXPOSURE

On the basis of available data and in view of the classification criteria of Annex I, Part 3 of (EC) Reg. 1272/2008 as amended, the product is not classified for this hazard class.

STOT - REPEATED EXPOSURE
On the basis of available data and in view of the classification criteria of Annex I, Part 3 of (EC) Reg. 1272/2008 as amended, the product is not classified for this hazard class.

ASPIRATION HAZARD
On the basis of available data and in view of the classification criteria of Annex I, Part 3 of (EC) Reg. 1272/2008 as amended, the product is not classified for this hazard class.

The following are the toxicological data referring to the substances contained in the mixture:

AMORPHOUS SILICATE HYDRATE

LD50 (Dermal):	> 2000 mg/kg Rat
LD50 (Oral):	> 2000 mg/kg Rat
LC50 (Inhalation mists/powders):	> 2,2 mg/l/1h Rat

Sulfur

LD50 (Dermal):	> 2000 mg/kg bw Rat
LD50 (Oral):	> 2000 mg/kg bw Rat
LC50 (Inhalation mists/powders):	> 5430 mg/m3 Rat

11.2. Information on other hazards
Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

SECTION 12. Ecological information

12.1. Toxicity
No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.
Based on the assessment of the component classification and classification provisions as per Annex I, Part 4 of (EC) reg. 1272/2008 as amended, the mixture is not classified as hazardous for the environment.

Sulfur

EC50 - for Crustacea	> 800 mg/l/48h Daphnia magna

12.2. Persistence and degradability

AMORPHOUS SILICATE HYDRATE

Solubility in water	0,1 - 100 mg/l

12.3. Bioaccumulative potential

AMORPHOUS SILICATE HYDRATE

Partition coefficient: n-octanol/water	0,53

12.4. Mobility in soil
Information not available

12.5. Results of PBT and vPvB assessment
On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

12.6. Endocrine disrupting properties
Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. Other adverse effects
Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number or ID number
not applicable

14.2. UN proper shipping name
not applicable

14.3. Transport hazard class(es)
not applicable

14.4. Packing group
not applicable

14.5. Environmental hazards
not applicable

14.6. Special precautions for user
not applicable

14.7. Maritime transport in bulk according to IMO instruments
Information not relevant

SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EU: None
Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Contained substance

Point	75	Sulfur

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors: not applicable
Substances in Candidate List (Art. 59 REACH): On the basis of available data, the product does not contain any SVHC in percentage ≥ than 0,1%.
Biocidal Products Regulation (Reg. (EU) 528/2012): not applicable
Detergent regulations (Reg. (EC) 648/2004): not applicable
Dir. 2004/42/EC - VOC/Italian Leg. Decr. 161/2006: not applicable

Substances subject to authorisation (Annex XIV REACH): None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012: None

Substances subject to the Rotterdam Convention: None

Substances subject to the Stockholm Convention: None

Healthcare controls: Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017)

WGK 3: Severe hazard to waters

15.2. Chemical safety assessment

A chemical safety assessment has been performed for the following contained substances

AMORPHOUS SILICATE HYDRATE
Sulfur

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Skin Irrit. 2	Skin irritation, category 2
H315	Causes skin irritation.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

- A1 = Confirmed Human Carcinogen
- A2 = Suspected Human Carcinogen
- A3 = Confirmed Animal Carcinogen with Unknown Relevance to Humans
- A4 = Not Classifiable as a Human Carcinogen

- A5 = Not Suspected as a Human Carcinogen
- IBE = Biological Indicators of Exposure.

CALCULATION METHODS

Chemical-physical hazards: the dangerousness has been derived from the classification criteria of CLP Regulation Annex I Part 2 as amended and added.
Health hazards have been assessed with the calculation method set out by Reg. (EC) 1272/2008 (CLP) as amended and added for the classification of mixtures when data are available on all components of the mixture or some of them:
Acute Tox: application of criteria in Table 3.1.1. Annex I Part 3 of CLP Regulation as amended and added.
Skin Corr. 1A/1B/1C H314: application of additivity formula criteria in Table 3.2.3 Annex I Part 3 of CLP Regulation
Skin Irrit 2 H315: application of additivity formula criteria in Table 3.2.3 Annex I Part 3 of CLP Regulation
Eye Dam 1 H318: application of additivity formula criteria in Table 3.3.3 Annex I Part 3 of CLP Regulation
Eye Irrit. 2 H319: application of the additivity formula criteria in Table 3.3.3 Annex I Part 3 of CLP Regulation
Eye Irrit. 2 H319: table 3.3.3 of Annex I, Part 3 of Reg. (EC) 1272/2008 (CLP) as amended and added.
Skin Sens 1A/1B/1 H317 Table 3.4.5 of Annex I, Part 3 of Reg. (EC) 1272/2008 (CLP) as amended and added.
Resp Sens 1A/1B/1 H334 Table 3.4.5 of Annex I, Part 3 of Reg. (EC) 1272/2008 (CLP) as amended and added.
Muta. 1A/1B, 2 H340 - H341: table 3.5.2 Annex I Part 3 of CLP Regulation as amended and added.
Carc 1A/1B, 2 H350 - H351: table 3.6.2 Annex I Part 3 of CLP Regulation as amended and added.
Repr 1A/1B, 2 H360 - H361: table 3.7.2 Annex I Part 3 of CLP Regulation as amended and added.
STOT SE 1, 2 H370 - 371: application of the calculation methods - table 3.8.3 of Ann. I, Part 3 of Reg. (EC) 1272/2008 (CLP) as amended and added.
STOT SE 3 H336: ch. 3.8.3.4.5 of Annex I, Part 3 of Reg. (EC) 1272/2008 (CLP) as amended and added.
STOT RE 1, 2 H372 - H373: table 3.9.4 Annex I Part 3 of CLP Regulation as amended and added.
Asp Tox 1 H304: application of criteria 3.10 Annex I Part 3 of CLP Regulation as amended and added
Environmental hazards have been assessed with the calculation method set out by Reg. (EC) 1272/2008 (CLP) as amended and added for the classification of mixtures when data are available on all components of the mixture or some of them:
toxicity for the aquatic environment acute effects: table 4.1.1 of Annex I, Part 4 of Reg. (EC) 1272/2008 (CLP) as amended and added;
toxicity for the aquatic environment chronic effects: table 4.1.2 of Annex I, Part 4 of Reg. (EC) 1272/2008 (CLP) as amended and added.

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified: all.