

## Safety Data Sheet

### CRISTALSOL

Safety Data Sheet dated 18/3/2025, version 2

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

1.1. Product identifier

Mixture identification:

Trade name: CRISTALSOL

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

Recommended use:

Enological product

1.3. Details of the supplier of the safety data sheet

Company:

SOFRALAB

79 AV. A.A. Thévenet - CS11031

51530 MAGENTA - FRANCE

Tel: 0033 (0) 326 51 29 30 - Fax: 0033 (0)3 26 51 87 60

Competent person responsible for the safety data sheet:

lcq@sofralab.com

1.4. Emergency telephone number

Emergency telephone number of the company and/or of an authorised advisory centre:

ORFILA 0033 (0)1 45 42 59 59

Antipoison Center - Hospital Name 2 - City - Telephone nbr. (availability information)

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#### SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

The product is not classified as hazardous according to Regulation EC 1272/2008 (CLP).

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

The product is not classified as hazardous according to Regulation EC 1272/2008 (CLP).

Hazard pictograms:

None

Hazard statements:

None

Precautionary statements:

None

Special Provisions:

None

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances present in concentration  $\geq 0.1\%$

Other Hazards:

No other hazards

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#### SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

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0.943 % ACIDE CITRIQUE MONOHYDRATE

CAS: 5949-29-1, EC: 201-069-1

⚠ 3.3/2 Eye Irrit. 2 H319

0.69 % BISULFITE DE POTASSIUM

CAS: 7773-03-7, EC: 231-870-1

⚠ 3.3/1 Eye Dam. 1 H318

EUH031

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#### SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Wash with plenty of water and soap.

In case of eyes contact:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

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

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

None

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

Treatment:

None

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#### SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO<sub>2</sub>).

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

5.3. Advice for firefighters

Use suitable breathing apparatus .

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

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

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#### SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

6.2. Environmental precautions

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.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

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- 6.3. Methods and material for containment and cleaning up  
Wash with plenty of water.
- 6.4. Reference to other sections  
See also section 8 and 13

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#### SECTION 7: Handling and storage

- 7.1. Precautions for safe handling  
Avoid contact with skin and eyes, inhalation of vapours and mists.  
See also section 8 for recommended protective equipment.  
Advice on general occupational hygiene:  
Do not eat or drink while working.
- 7.2. Conditions for safe storage, including any incompatibilities  
Keep away from food, drink and feed.  
Incompatible materials:  
None in particular.  
Instructions as regards storage premises:  
Adequately ventilated premises.
- 7.3. Specific end use(s)  
None in particular

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#### SECTION 8: Exposure controls/personal protection

- 8.1. Control parameters  
BISULFITE DE POTASSIUM - CAS: 7773-03-7  
- OEL Type: ACGIH - STEL: 0.25 ppm - Notes: SO2  
- OEL Type: EU - TWA: 0.5 ppm - STEL: 1 ppm - Notes: SO2
- DNEL Exposure Limit Values  
BISULFITE DE POTASSIUM - CAS: 7773-03-7  
Worker Professional: 263 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects  
Consumer: 78 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, local effects  
Consumer: 10 mg/kg - Exposure: Human Oral - Frequency: Long Term, local effects
- PNEC Exposure Limit Values  
ACIDE CITRIQUE MONOHYDRATE - CAS: 5949-29-1  
Target: Fresh Water - Value: 0.44 mg/l  
Target: Marine water - Value: 0.044 mg/l  
Target: Freshwater sediments - Value: 34.6 mg/kg  
Target: Marine water sediments - Value: 3.46 mg/kg  
Target: Microorganisms in sewage treatments - Value: 1000 mg/l  
BISULFITE DE POTASSIUM - CAS: 7773-03-7  
Target: Fresh Water - Value: 1.17 mg/l  
Target: Marine water - Value: 0.12 mg/l  
Target: Microorganisms in sewage treatments - Value: 88.1 mg/l
- 8.2. Exposure controls
- Eye protection:  
Not needed for normal use. Anyway, operate according good working practices.
- Protection for skin:  
No special precaution must be adopted for normal use.
- Protection for hands:  
Not needed for normal use.
- Respiratory protection:  
Not needed for normal use.
- Thermal Hazards:  
None
- Environmental exposure controls:  
None
- Appropriate engineering controls:

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None

#### SECTION 9: Physical and chemical properties

##### 9.1. Information on basic physical and chemical properties

| Properties  | Value                                    | Method: | Notes |
|---|--|---------|-------|
| Physical state:   | Liquid                                   | --      | --    |
| Colour:   | N.A.                                     | --      | --    |
| Odour:  | Odeur caractéristique de SO <sub>2</sub> | --      | --    |
| Melting point/freezing point:                             | N.A.                                     | --      | --    |
| Boiling point or initial boiling point and boiling range: | N.A.                                     | --      | --    |
| Flammability:   | N.A.                                     | --      | --    |
| Lower and upper explosion limit:                          | N.A.                                     | --      | --    |
| Flash point:  | N.A.                                     | --      | --    |
| Auto-ignition temperature:                                | N.A.                                     | --      | --    |
| Decomposition temperature:                                | N.A.                                     | --      | --    |
| pH:   | env 2,2                                  | --      | --    |
| Kinematic viscosity:                                      | N.A.                                     | --      | --    |
| Solubility in water:                                      | Totalement soluble                       | --      | --    |
| Solubility in oil:  | N.A.                                     | --      | --    |
| Partition coefficient n-octanol/water (log value):        | N.A.                                     | --      | --    |
| Vapour pressure:  | N.A.                                     | --      | --    |
| Density and/or relative density:                          | N.A.                                     | --      | --    |
| Relative vapour density:                                  | N.A.                                     | --      | --    |
| Particle characteristics:                                 |  |         |       |
| Particle size:  | N.A.                                     | --      | --    |

##### 9.2. Other information

No other relevant information

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#### SECTION 10: Stability and reactivity

- 10.1. Reactivity  
Stable under normal conditions
- 10.2. Chemical stability  
Stable under normal conditions
- 10.3. Possibility of hazardous reactions  
None
- 10.4. Conditions to avoid  
Stable under normal conditions.
- 10.5. Incompatible materials  
None in particular.
- 10.6. Hazardous decomposition products  
None.

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#### SECTION 11: Toxicological information

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

Toxicological information of the product:

N.A.

Toxicological information of the main substances found in the product:

ACIDE CITRIQUE MONOHYDRATE - CAS: 5949-29-1

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Mouse = 5400 mg/kg

Test: LD50 - Route: Oral - Species: Rat = 11700 mg/kg

Test: LD50 - Route: Skin - Species: Rat = 725 mg/kg

Test: LD50 - Route: Skin - Species: Mouse = 940 mg/kg

BISULFITE DE POTASSIUM - CAS: 7773-03-7

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 2300 mg/kg

c) serious eye damage/irritation:

Test: Eye Corrosive

If not differently specified, the information required in Regulation (EU)2020/878 listed below must be considered as N.A.:

- a) acute toxicity;
- b) skin corrosion/irritation;
- c) serious eye damage/irritation;
- d) respiratory or skin sensitisation;
- e) germ cell mutagenicity;
- f) carcinogenicity;
- g) reproductive toxicity;
- h) STOT-single exposure;
- i) STOT-repeated exposure;
- j) aspiration hazard.

- 11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration  $\geq 0.1\%$

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#### SECTION 12: Ecological information

- 12.1. Toxicity

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

ACIDE CITRIQUE MONOHYDRATE - CAS: 5949-29-1

a) Aquatic acute toxicity:

Endpoint: LC50 Fish = 440 mg/l - Duration h: 48

Endpoint: LC50 Daphnia = 1535 mg/l - Duration h: 24

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- c) Bacteria toxicity:  
BACTERIA > 10000 mg/l - Duration h: 16
- e) Plant toxicity:  
Algae = 425 mg/l - Duration h: 168  
BISULFITE DE POTASSIUM - CAS: 7773-03-7
- a) Aquatic acute toxicity:  
Endpoint: LC50 Fish = 460-1000 mg/l - Duration h: 96  
Endpoint: EC50 BACTERIA = 65 mg/l - Duration h: 17
- 12.2. Persistence and degradability  
N.A.
- 12.3. Bioaccumulative potential  
N.A.
- 12.4. Mobility in soil  
N.A.
- 12.5. Results of PBT and vPvB assessment  
vPvB Substances: None - PBT Substances: None
- 12.6. Endocrine disrupting properties  
No endocrine disruptor substances present in concentration  $\geq 0.1\%$
- 12.7. Other adverse effects  
None

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#### SECTION 13: Disposal considerations

- 13.1. Waste treatment methods  
Recover if possible. In so doing, comply with the local and national regulations currently in force.

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#### SECTION 14: Transport information

- 14.1. UN number or ID number  
Not classified as dangerous in the meaning of transport regulations.
- 14.2. UN proper shipping name  
N.A.
- 14.3. Transport hazard class(es)  
N.A.
- 14.4. Packing group  
N.A.
- 14.5. Environmental hazards  
ADR-Environmental Pollutant: No  
IMDG-Marine pollutant: No
- 14.6. Special precautions for user  
N.A.
- 14.7. Maritime transport in bulk according to IMO instruments  
N.A.

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#### SECTION 15: Regulatory information

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture  
Dir. 98/24/EC (Risks related to chemical agents at work)  
Dir. 2000/39/EC (Occupational exposure limit values)  
Regulation (EC) n. 1907/2006 (REACH)  
Regulation (EC) n. 1272/2008 (CLP)  
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013  
Regulation (EU) n. 2020/878  
Regulation (EU) n. 286/2011 (ATP 2 CLP)  
Regulation (EU) n. 618/2012 (ATP 3 CLP)  
Regulation (EU) n. 487/2013 (ATP 4 CLP)

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Regulation (EU) n. 944/2013 (ATP 5 CLP)  
Regulation (EU) n. 605/2014 (ATP 6 CLP)  
Regulation (EU) n. 2015/1221 (ATP 7 CLP)  
Regulation (EU) n. 2016/918 (ATP 8 CLP)  
Regulation (EU) n. 2016/1179 (ATP 9 CLP)  
Regulation (EU) n. 2017/776 (ATP 10 CLP)  
Regulation (EU) n. 2018/669 (ATP 11 CLP)  
Regulation (EU) n. 2018/1480 (ATP 13 CLP)  
Regulation (EU) n. 2019/521 (ATP 12 CLP)  
Regulation (EU) n. 2020/217 (ATP 14 CLP)  
Regulation (EU) n. 2020/1182 (ATP 15 CLP)  
Regulation (EU) n. 2021/643 (ATP 16 CLP)  
Regulation (EU) n. 2021/849 (ATP 17 CLP)  
Regulation (EU) n. 2022/692 (ATP 18 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

No restriction.

Restrictions related to the substances contained:

No restriction.

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).

Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

N.A.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

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### SECTION 16: Other information

Full text of phrases referred to in Section 3:

H319 Causes serious eye irritation.

H318 Causes serious eye damage.

EUH031 Contact with acids liberates toxic gas.

| Hazard class and hazard category | Code  | Description                    |
|----------------------------------|-------|--------------------------------|
| Eye Dam. 1                       | 3.3/1 | Serious eye damage, Category 1 |
| Eye Irrit. 2                     | 3.3/2 | Eye irritation, Category 2     |

This safety data sheet has been completely updated in compliance to Regulation 2020/878.

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.

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|             |  |
|-------------|--|
| ADR:        | European Agreement concerning the International Carriage of Dangerous Goods by Road. |
| ATE:        | Acute Toxicity Estimate  |
| ATEmix:     | Acute toxicity Estimate (Mixtures)   |
| CAS:        | Chemical Abstracts Service (division of the American Chemical Society).              |
| CLP:        | Classification, Labeling, Packaging.   |
| DNEL:       | Derived No Effect Level.   |
| EINECS:     | European Inventory of Existing Commercial Chemical Substances.                       |
| GefStoffVO: | Ordinance on Hazardous Substances, Germany.  |
| GHS:        | Globally Harmonized System of Classification and Labeling of Chemicals.              |
| 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).    |
| IMDG:       | International Maritime Code for Dangerous Goods.                                     |
| INCI:       | International Nomenclature of Cosmetic Ingredients.                                  |
| KSt:        | Explosion coefficient.   |
| LC50:       | Lethal concentration, for 50 percent of test population.                             |
| LD50:       | Lethal dose, for 50 percent of test population.                                      |
| PNEC:       | Predicted No Effect Concentration.   |
| RID:        | Regulation Concerning the International Transport of Dangerous Goods by Rail.        |
| STEL:       | Short Term Exposure limit.   |
| STOT:       | Specific Target Organ Toxicity.  |
| TLV:        | Threshold Limiting Value.  |
| TWA:        | Time-weighted average  |
| WGK:        | German Water Hazard Class.   |