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

1.1. Product identifier

Product form          : Mixture
Trade name           : MANNOSTAB® LIQUIDE 200
Type of product      : For œnological use
Product group        : Trade product
Other means of identification     : E220

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
Industrial/Professional use spec    : For professional users only
Use of the substance/mixture : Specific yeast cell wall mannanprotein (Saccharomyces cerevisiae) for the stabilisation of potassium bitartrate salts in wine.
Use of the substance/mixture : For œnological use

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer
LAFFORT FRANCE
P.O. Box CS 61611
33072 BORDEAUX CEDEX - FRANCE
T +33 (0)5 56 86 53 04 - F +33 (0)5 56 86 30 50
info@laffort.com - www.laffort.com

Distributor
LAFFORT AUSTRALIA
23 BURWOOD AVENUE
WOODVILLE NORTH
5012 SOUTH AUSTRALIA - AUSTRALIA
T (08) 8360 2200
info@laffort.com - www.laffort.com

Manufacturer
LAFFORT CHILE
PARCELA 233, LOTE 2,
COLONIA KENNEDY, SECTOR HOSPITAL
9540000 PAINE - CHILE
T +56 22 979 1590 - F +56 9 5201 7140
info@laffort.com - www.laffort.com

Distributor
LAFFORT ESPANA
TXIRRITA MALEO 12 APTDO 246
20100 RENTERIA - ESPAGNE
T 0034943344068 - F 0034943344281
info@laffort.com - www.laffort.com

Manufacturer
LAFFORT ITALIA
S.P. PER CASTELNUOVO SCRIVIA S.N.C.
15057 TORTONA AL
T +39 0131 863 608 - F +39 0131 821 305
laffortitalia@laffort.com - www.laffort.com

Distributor
LAFFORT NEW ZEALAND
4/B GREENWOODS CLOSE
TITIRANGI
P.O. Box P.O. BOX 60-249
1000 AUCKLAND - NEW ZEALAND
T 64 (0) 21 322 290
info@laffort.com - www.laffort.com

Distributor
LAFFORT SOUTH AFRICA
32 ZANDWYK PARK
7646 PAARL - SOUTH AFRICA
T +27 21 882 8106
info@laffort.com - www.laffort.com

Distributor
LAFFORT USA
1460 CADER LANE
SUITE C
CA 94954 PETALUMA - USA
T +1 (707) 775 4530
laffortusa@laffort.com - www.laffortusa.com
### 1.4. Emergency telephone number

<table>
<thead>
<tr>
<th>Country</th>
<th>Organisation/Company</th>
<th>Address</th>
<th>Emergency number</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>NSW Poisons Information Centre</td>
<td>The Children’s Hospital at Westmead Locked Bag 4001 NSW 2145 Westmead</td>
<td>13 11 26 +61 2 2 247 3600</td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td>Ontario Poison Centre (OPC)</td>
<td>The Hospital for Sick Children 555 University Avenue ON M5G 1X8 Toronto</td>
<td>1-800-268-9017 (416) 813-5900</td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td>BC Drug and Poison Information Centre (DPIC)</td>
<td>655 West 12th Avenue BC VSZ 4R4 Vancouver</td>
<td>1-800-567-8911 (604) 682-5050</td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>National Poison Control Center</td>
<td>Chinese Center for Disease Control and Prevention Nanwei road, No.29 100050 Beijing</td>
<td>+86 10 831 32 046</td>
<td></td>
</tr>
<tr>
<td>Croatia</td>
<td>Centar za kontrolu otrovanja Institut za medicinska istraživanja i medicinu rada</td>
<td>Ksaverska Cesta 2 p.p. 291 10000 Zagreb</td>
<td>+385 1 234 8342</td>
<td></td>
</tr>
<tr>
<td>Czech Republic</td>
<td>Toxikologické informační středisko Klinika pracovního lékařství VFN a 1. LF UK</td>
<td>Na Bojiští 1 120 00 Praha 2</td>
<td>+420 224 919 293 +420 224 915 402</td>
<td></td>
</tr>
<tr>
<td>Georgia</td>
<td>National Toxicology Information Advisory Center</td>
<td>Tbilisi State Medical University Department of Toxicology - 7 Asatiani St. 380 077 Tbilisi</td>
<td>+995 99 533320</td>
<td></td>
</tr>
<tr>
<td>Greece</td>
<td>Poisons Information Centre Children’s Hospital P&amp;A Kyriakou</td>
<td>11762 Athens</td>
<td>+30 2 10 779 3777</td>
<td></td>
</tr>
<tr>
<td>Hungary</td>
<td>Országos Kémiai Biztonsági Intézet Egészségügyi Tokiológiai Tájékoztató Szolgálat</td>
<td>Nagyvárad tér 2. 1437 Budapest, Pf. 839 1097 Budapest</td>
<td>+36 80 20 11 99</td>
<td></td>
</tr>
<tr>
<td>Israel</td>
<td>Israel Poison Information Center Rambam Health Care Campus</td>
<td>6 Ha’Alia Street 31096 Haifa</td>
<td>+972 4 854 1900</td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>Japan Poison Information Center</td>
<td>Tsukuba Medical Center 1-1-1 Amakubo 305-0005 Tsukuba City, Ibaraki</td>
<td>+81-29-856-3566 +81-72-727-2499</td>
<td></td>
</tr>
<tr>
<td>Malta</td>
<td>Medicines &amp; Poisons Info Office</td>
<td>Mater Dei Hospital MSD Msida</td>
<td>+356 2545 6504</td>
<td></td>
</tr>
<tr>
<td>New Zealand</td>
<td>National Poisons Centre</td>
<td>Dunedin School of Medicine, University of Otago PO Box 913 9054 Dunedin</td>
<td>0800 764 766 +61 2 2 247 3600</td>
<td></td>
</tr>
<tr>
<td>Poland</td>
<td>National Poisons Information Centre The Nofer Institute of Occupational Medicine (Łódź)</td>
<td>ul. Teresy 8 P.O. BOX 199 90950 Łódź</td>
<td>+48 42 63 14 724</td>
<td></td>
</tr>
<tr>
<td>Romania</td>
<td>Department of Clinical Toxicology Spitalul de Urgenta Floreasca</td>
<td>Calea Floreasca Bucuresti</td>
<td>+40 21 230 8000</td>
<td></td>
</tr>
</tbody>
</table>
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

Causes skin irritation.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP] Extra labelling to display
Extra classification(s) to display
No labelling applicable

2.3. Other hazards

Other hazards not contributing to the classification

: Sulphur dioxide. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
MANOSTAB® LIQUIDE 200
Safety Data Sheet
according to Regulation (EU) 2015/830

SECTION 3: Composition/Information on Ingredients

3.1. Substances
Not applicable

3.2. Mixtures

This mixture does not contain any substances to be mentioned according to the criteria of section 3.2 of REACH annex II

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general: In case of doubt or persistent symptoms, consult always a physician. Remove victim from polluted area. Take off immediately all contaminated clothing. Never give anything by mouth to an unconscious person. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

First-aid measures after inhalation: Remove person to fresh air and keep comfortable for breathing. If symptoms persist, call a physician.

First-aid measures after skin contact: After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. If symptoms persist, call a physician.

First-aid measures after eye contact: In case of eye contact, immediately rinse with clean water for 10-15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion: If swallowed, rinse mouth with water (only if the person is conscious). Never give anything by mouth to an unconscious person. Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects: More detailed information: See section 11.

Symptoms/effects after skin contact: Irritation.

Symptoms/effects after eye contact: Serious damage to eyes.

Symptoms/effects after ingestion: Ingestion may cause nausea and vomiting. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

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: carbon dioxide (CO2), powder, alcohol-resistant foam, water spray.

Unsuitable extinguishing media: Do not use water jet.

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). Sulphur oxides.
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.

Other information: Do not contaminate ground and surface water. Dispose in a safe manner in accordance with local/national regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Evacuate personnel to a safe area. Spilled material may present a slipping hazard.

6.1.1. For non-emergency personnel

Protective equipment: Wear personal protective equipment.

Emergency procedures: Ventilate spillage area. Avoid contact with skin and eyes.

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

For containment: Cover spill with non-combustible material, e.g.: sand, earth, vermiculite.

Methods for cleaning up: Mechanically recover the product. Shovel into suitable and closed container for disposal. Clean contaminated surfaces with an excess of water.

Other information: Dispose of materials or solid residues at an authorized site. Do not allow to enter drains or water courses.

6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling: Store tightly closed in a dry and cool place. Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment.

Hygiene measures: Do not eat, drink or smoke when using this product. Always wash hands after handling the product. If on skin, take off contaminated clothing. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a dry, cool place. Keep out of direct sunlight. Store in a well-ventilated place.

Heat and ignition sources: Store away from heat.

7.3. Specific end use(s)

For œnological use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available
8.2. Exposure controls

Appropriate engineering controls:
Ensure good ventilation of the work station.

Personal protective equipment:
Refer to protective measures listed in Sections 7 and 8.

Materials for protective clothing:
Long sleeved protective clothing

Hand protection:
Protective gloves

<table>
<thead>
<tr>
<th>Type</th>
<th>Material</th>
<th>Permeation</th>
<th>Thickness (mm)</th>
<th>Penetration</th>
<th>Standard</th>
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<tbody>
<tr>
<td>Chemically resistant</td>
<td>Protective gloves</td>
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<td></td>
<td></td>
<td>EN 374</td>
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</table>

Eye protection:
Safety glasses

<table>
<thead>
<tr>
<th>Type</th>
<th>Use</th>
<th>Characteristics</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety glasses</td>
<td></td>
<td>With side shields</td>
<td>EN 166</td>
</tr>
</tbody>
</table>

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment. EN 143

Environmental exposure controls:
Do not allow into drains or water courses. Avoid release to the environment.

Other information:
Do not eat, drink or smoke during work. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Liquid.
Colour : dark brown.
Odour : characteristic.
Odour threshold : No data available
pH : ≈ 2.7 - 3.3
Relative evaporation rate (butylacetate=1) : No data available
Melting point : Not applicable
Freezing point : No data available
Boiling point : No data available
Flash point : > 100 °C
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Flammability (solid, gas) : Not applicable
Vapour pressure : No data available
Relative vapour density at 20 °C : No data available
Relative density : No data available
Density : ≈ 1.08 kg/l
Log Pow : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidising properties : No data available
Explosive limits :

9.2. Other information
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
Heat. Flames or sparks.

10.5. Incompatible materials
Oxidizing agent. Acids.
10.6. Hazardous decomposition products
Hazardous combustion products. See Heading 5.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

- Acute toxicity (oral): Not classified
- Acute toxicity (dermal): Not classified
- Acute toxicity (inhalation): Not classified

- Skin corrosion/irritation: Slightly irritant but not relevant for classification
  pH: ≈ 2.7 - 3.3
- Serious eye damage/irritation: May be slightly irritating to skin and eyes
  pH: ≈ 2.7 - 3.3
- Respiratory or skin sensitisation: Did not cause sensitisation
- Germ cell mutagenicity: Not classified
- Reproductive toxicity: Not classified

- STOT-single exposure: Not classified
- STOT-repeated exposure: Not classified
- Aspiration hazard: Not classified

SECTION 12: Ecological information

12.1. Toxicity

- Ecology - general: No known adverse effects on the functioning of water treatment plants under normal use conditions as recommended. Avoid undiluted product to come into sewer or superficial water.
- Acute aquatic toxicity: Not classified
- Chronic aquatic toxicity: Not classified

12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>MANNOSTAB® LIQUIDE 200</th>
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</thead>
<tbody>
<tr>
<td>Persistence and degradability: Biodegradable.</td>
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</table>
12.3. Bioaccumulative potential
No additional information available

12.4. Mobility in soil
No additional information available

12.5. Results of PBT and vPvB assessment
No additional information available

12.6. Other adverse effects
Other adverse effects: Do not allow to enter drains or water courses.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Waste treatment methods: Dispose of contents/container in accordance with licensed collector’s sorting instructions.
Sewage disposal recommendations: Do not flush into surface water or sewer system.
Product/Packaging disposal recommendations: Empty remaining contents. Dispose of contents/container in accordance with licensed collector’s sorting instructions.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number
UN-No. (ADR) : Not regulated
UN-No. (IMDG) : Not regulated
UN-No. (IATA) : Not regulated
UN-No. (ADN) : Not regulated
UN-No. (RID) : Not regulated

14.2. UN proper shipping name
Proper Shipping Name (ADR) : Not regulated
Proper Shipping Name (IMDG) : Not regulated
Proper Shipping Name (IATA) : Not regulated
Proper Shipping Name (ADN) : Not regulated
Proper Shipping Name (RID) : Not regulated

14.3. Transport hazard class(es)
ADR
Transport hazard class(es) (ADR) : Not regulated

IMDG
Transport hazard class(es) (IMDG) : Not regulated
MANNOSTAB® LIQUIDE 200
Safety Data Sheet
according to Regulation (EU) 2015/830

14. Transport

14.1. Transport hazard class(es) (IATA)
Not regulated

14.2. Transport hazard class(es) (ADN)
Not regulated

14.3. Transport hazard class(es) (RID)
Not regulated

14.4. Packing group

Packing group (ADR)
Not regulated

Packing group (IMDG)
Not regulated

Packing group (IATA)
Not regulated

Packing group (ADN)
Not regulated

Packing group (RID)
Not regulated

14.5. Environmental hazards

Dangerous for the environment
No

Marine pollutant
No

Other information
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

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
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
15.1.2. National regulations

**Germany**

VwVwS Annex reference : Water hazard class (WGK) 3, severe hazard to waters (Classification according to VwVwS, Annex 4)


**Netherlands**

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

**SECTION 16: Other information**

<table>
<thead>
<tr>
<th>Indication of changes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revision - See : *</td>
</tr>
</tbody>
</table>

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