Fermentis LESAFFRE FOR BEVERAGES

In accordance with EC regulation no. 1907/2006, modified

VINILIQUID

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

1.1. Product identifier — **ViniLiquid**

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

Alcoholic fermentation activator for fermented drinks. Application in the field wine-making, brewing, etc.

Alcoholic fermentation activator intended to avoid stuck fermentations or sluggish fermentations in difficult conditions and/or accelerate completion with a view to improving the productivity of the alcohol-producing company.

Types of food in which the product will be used: wine, beer and any other fermented drink.

1.3. Details of the supplier of the safety data sheet

Supplier :

SOCIETE INDUSTRIELLE LESAFFRE, Division Fermentis

137, rue Gabriel Péri

59703 Marcq-En-Baroeul – FRANCE

Téléphone : +33 3 20 81 62 75

Fax : +33 3 20 81 62 70

Contact : Etienne DORIGNAC (Fermentis / Product Manager-Oenology)

E-mail : edorignac.fermentis@lesaffre.fr

1.4. Emergency telephone number

The emergency telephone number valid in France is the ORFILA number (INRS): + 33 (0)1 45 42 59 59. This number can be used to obtain the contact details of all the French Anti-Poison Centres. These Anti-Poison and Toxicant Monitoring Centres provide free medical assistance (except for the cost of the call) 24/7. To find out the emergency telephone number valid in your country, please contact the competent local authorities or look up the ECHA website (European Chemicals Agency): http://echa.europa.eu/en/web/guest/support/helpdesks/national-helpdesks/list-of-national-helpdesks

Section 2. Hazards identification

2.1. Classification of the substance or mixture

Classification EC 67/548 or EC 1999/45:

Not classified.

Hazard class code(s) and categories, Regulation No. (EC) 1272/2008 (CLP):

Not classified.

2.2. Label elements

Labelling regulation EC 1272/2008 (CLP):

Hazard pictogram(s): None.

Signal word: None.

Hazard statement: None.

Precautionary statements: None.

Additional labelling:

EUH210 - Safety Data Sheet available on request.

EUH031 - Contact with acids liberates toxic gas.

2.3. Other hazards

If a large quantity is inhaled: possible respiratory tract irritation. Repeated inhalation may cause sensitisation and allergic reactions. Irritation of the skin and eyes is possible.

See section 12.5 for Results of PBT and vPvB assessment.

Section 3. Composition/information on ingredients

3.2. Mixtures

Chemical name	Numbers Index/CAS/EC/Registration	67548/EEC classification	Classification EC Regulation No. 1272/2008	Concentration %
Malic acid	6915-15-7 230-022-8	Xi - R36/38	Eye Irrit. 2; H319	< 3.5%
Dipotassium disulfite	16731-55-8 240-795-3 01-2119537422-45	Xi – R41 R31	Eye Dam. 1; H318 EUH031	< 0.65%

For the full text of R-phrases specified in this chapter, see section 16.
For the full text of H-phrases specified in this chapter, see section 16.

Section 4. First aid measures

4.1. Description of first aid measures	General advice: In the event of serious or persistent problems, call a doctor or request medical assistance.
Contact with eyes:	Rinse carefully with plenty of water, holding the eyelids firmly open. Consult an ophthalmologist if irritation arises.
After contact with skin:	Wash the areas of the body affected with soap and plenty of water. Consult a doctor if irritation appears.
Inhalation :	If a large quantity of vapour is inhaled: in the event of breathing difficulties, take the victim outside and keep at rest in a comfortable position for breathing. Call a doctor in the event of breathing difficulties.
Ingestion :	If the person is conscious, rinse out their mouth with water. Do not try to induce vomiting without medical advice. Call a doctor or an Anti-Poison Centre (and show this Material Safety Data Sheet or the label).
Protection of first aiders:	Protection for first aiders during rescue operations must be provided. Personal protective equipment should be used. See section 8.
4.2. Most important symptoms and effects, both acute and delayed	No data available.
4.3. Indication of any immediate medical attention and special treatment needed	No data available.

Section 5. Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:	Water, dry chemical powder, foams or water spray.
Extinguishing media not to be used for safety reasons:	Strong, straight water jet.
5.2. Special hazards arising from the substance or mixture	In the event of fire the product may release hazardous decomposition products, such as carbon monoxide and dioxide. Possible discharge of sulphur dioxide (SO2).
5.3. Advice for firefighters	Cool packages exposed to fire using water spray. Prevent firefighting effluents from entering the sewage system, water courses or water table. Do not enter or remain in the danger zone without chemical protection clothing (protective clothing, gloves and boots), or without self-contained breathing apparatus. Do not let the extinguishing water enter the drains or water courses.

Section 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with the skin and eyes.

Collect the product by mixing with an inert absorbent for liquids. Wash residue in the contaminated zone with plenty of water and detergent.

For non-first-aiders: Ensure suitable ventilation. See section 8 for personal protective equipment.

For first-aiders: Ventilate the premises appropriately. If large quantities have been spilled, protect the intervention personnel with safety gloves, shoes respiratory protective equipment, etc.

6.2. Environmental precautions

Prevent from spreading into the sewage system, water courses, groundwater and soil. Do not empty washing water into the sewage system. Do not release the recovered product into the environment.

6.3. Methods and material for containment and cleaning up

Collect the product by mixing with an inert absorbent for liquids and store in suitable containers before disposal in accordance with the regulations in force. Wash the contaminated area with water.

6.4. Reference to other sections

For information regarding handling, see section 7. For information regarding personal protective equipment, see section 8. For information regarding disposal, see section 13.

Section 7. Handling and storage

7.1. Precautions for safe handling

Ensure appropriate general ventilation. Adhere to the hygiene rules.

Avoid contact with the skin and eyes. Do not swallow. Keep out of the reach of children.

Do not smoke, eat or drink during use.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions:

Storage conditions and shelf life: 2 years in the original packaging, stored in a cool, dry place away from the light

Materials to avoid: strong oxidants, strong acids and strong bases. Alkaline metals, amines, nitrites, nitrates and sulphides.

7.3. Specific end use(s)

To ensure that this product is used safely and correctly, please refer to the conditions of use indicated on the product label.

Section 8. Exposure controls/personal protection

8.1. Control parameters

Professional exposure threshold limit values:
Do not contain substances with professional exposure threshold limit values
In case of contact with acids or during a thermal decomposition, sulphur dioxide can be released:

Sulphur dioxide [SO_2] (CAS: 7446-09-5) :

TWA = 2 ppm = 5 mg/m^3 (INRS – France)

STEL (ELV) = 5 ppm = 10 mg/m^3 (INRS – France)

Predicted no-effect concentration (PNEC)

Dipotassium disulfite:

Freshwater: 1.17 mg/l

Seawater

STP: 88.1 mg/l

8.2. Exposure controls

Technical measures:	Ensure appropriate general ventilation.
Personal safety equipment:	All collective protective measures must be installed and implemented before employing personal protective equipment. Use personal protective equipment that is clean and in good condition.
Respiratory protection:	Ensure good aeration/ventilation (constant renewal of air). In the event of insufficient ventilation of the room, wear respiratory protective equipment. Type A1 or A2 filter trapping SO_2 (in accordance with the standard EN 141).
Eye protection:	If there is a risk of contact with the eyes: Wear eye protection (goggles with side shield) resistant to chemicals (EN166).
Hand protection:	For industrial use: Use gloves which are at least chemical resistant and impermeable (compliant with standard EN 374). Use of this product means that the type of material and thickness of the gloves, as well as the breakthrough time of the constituent material of the gloves, can only be chosen after in-depth study of the workstation, which must produce a clear definition of the conditions of use and as accurate an assessment as possible. Therefore, the choice of gloves should be made with the advice of the personal protective equipment manufacturer. Due to the great variety of exposure conditions, the user must consider the actual service life of a chemical protection glove as much shorter than the permeation time. Be sure to adhere to the manufacturer's advice for use, in particular the minimum thickness and minimum penetration time. This information should not replace the compliance tests performed by the end user. The protection provided by the glove depends on the substance/mixture conditions of use. Wearing gloves is recommended (Nitrile rubber in accordance with standard EN 374, penetration time > 480 minutes; thickness: 0.4 mm).
Hygiene measures:	Do not eat, drink or smoke in the workplace. Wash hands after handling.
Exposure controls relating to environmental protection:	Prevent spilled product from entering the sewage system, water courses or the soil.

Section 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Light beige to dark yellow.
Odour	Characteristic of yeast extract.
pH	3.5 - 4.5
Melting point/range	No data available.
Boiling point/range	No data available.
Flashpoint	No data available.
Evaporation rate	No data available.
Inflammability (solid, gas)	Not applicable.
Upper inflammability threshold in air	No data available.
Lower inflammability threshold in air	No data available.
Vapour pressure	No data available.
Vapour density	No data available.
Density	1,12 kg/l
Solubility in water	No data available.
Log Pow	No data available.
Self-ignition temperature	No data available.
Viscosity, kinematic	No data available.
Viscosity, dynamic	No data available.
Explosive properties	No data available.
Oxidising properties	No data available.

9.2. Other information

No data available.

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Section 10. Stability and reactivity

10.1. Reactivity	No data available
10.2. Chemical stability	Product stable under recommended handling and storage conditions. Contact with acids liberates toxic gas.
10.3. Possibility of hazardous reactions	No foreseen hazardous reaction/polymerisation.
10.4. Conditions to avoid	High temperatures (decomposition possible with release of SO_2).
10.5. Incompatible materials	Strong oxidants, strong acids and strong bases. Alkaline metals, amines, nitrites, nitrates and sulphides.
10.6 Hazardous decomposition products	Contact with acids liberates toxic gas. Contact with acids liberates sulphur dioxide. In the event of fire the product may release hazardous decomposition products, such as carbon monoxide and dioxide.

Section 11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity	To our knowledge (and taking into account its composition), this product is not classified under this hazard category.
Malic acid:	LD50 oral: > 3,200 mg/kg (rat)
Dipotassium disulfite:	LD50 (oral, rat): 2,300 mg/kg. LC50 (inhalation, 4h, dust/fog) – OECD 403: 5.5 mg/l LD50 (dermal, rat) – OECD 402: > 2,000 mg/kg
Skin corrosion/skin irritation	To our knowledge (and taking into account its composition), this product is not classified under this hazard category.
Serious eye damage/eye irritation	To our knowledge (and taking into account its composition), this product is not classified under this hazard category.
Respiratory or skin sensitisation	To our knowledge (and taking into account its composition), this product is not classified under this hazard category.
Mutagenicity on germ cells	To our knowledge (and taking into account its composition), this product is not classified under this hazard category.
Carcinogenicity	To our knowledge (and taking into account its composition), this product is not classified under this hazard category.
Toxicity to reproduction	To our knowledge (and taking into account its composition), this product is not classified under this hazard category.
Specific toxicity to certain target organs — single exposure	To our knowledge (and taking into account its composition), this product is not classified under this hazard category.
Specific toxicity to certain target organs — repeated exposure	To our knowledge (and taking into account its composition), this product is not classified under this hazard category.
Aspiration hazard	To our knowledge (and taking into account its composition), this product is not classified under this hazard category.
Information on likely means of exposure:	

Inhalation	If a large quantity is inhaled: possible respiratory tract irritation. Repeated inhalation may cause sensitisation and allergic reactions.
Contact with skin	Irritation of the skin possible.
Contact with eyes	Irritation of the eyes possible.
Ingestion:	No data available.

Section 12. Ecological information

12.1. Toxicity	Not classified as hazardous to the aquatic environment.
Malic acid:	Fish (Carassius auratus): LC50 (96h): 295 mg/l
Dipotassium disulfite:	Fish (Brachydanio rerio): LC50 (96h): 460 – 1,000 mg/l
	Daphnia (Daphnia magna) : EC50 (48h) : 88.8 mg/l
	Alga (Desmodesmus subspicatus (green algae)) : EC50 (72h) : 48.1 mg/l
	Micro-organisms (Pseudomonas putida) EC50 (17h): 65 mg/l
12.2. Persistence and degradability	No data available.
Malic acid:	100% (length of exposure: 30 d) (OECD 301 D) Readily biodegradable.
12.3. Bioaccumulative potential	No data available.
12.4. Mobility in soil	No data available.
12.5. Results of PBT and vPvB assessment	No data available.
Malic acid:	This substance is not considered as very persistent or very bioaccumulative (vPvB). This substance is not considered as persistent, bioaccumulative or toxic (PBT).
Dipotassium disulfite:	This substance is not considered as very persistent or very bioaccumulative (vPvB). This substance is not considered as persistent, bioaccumulative or toxic (PBT).
12.6. Other adverse effects	No data available.

Section 13. Disposal considerations

13.1. Waste treatment methods	Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of the contents/the container at an approved incineration facility.
Contaminated packaging	Empty packaging must be sent to an approved waste treatment site for recycling or disposal.
	Do not discard onto the soil or into surface or ground water.

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Section 14. Transport information

Transport regulations	ADR / RID / ADNR	IMDG	IATA
14.1 UN number	NON-REGULATED		
14.2 UN proper shipping name			
14.3 Transport hazard class(es)			
14.4 Packing group			
14.5 Environmental hazards			
14.6 Special precautions for user			
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code			

Section 15. Regulatory information

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

Check compliance with all national and local regulations.

15.2. Chemical safety assessment

Dipotassium disulfite has been subjected to a chemical safety assessment.

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Section 16. Other information

H and R phrases for the hazards specified in chapter 3:

R36/38 Irritating to eyes and skin.

R31 Contact with acids liberates toxic gas.

R41 Risk of serious damage to eyes.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

EUH031 Contact with acids liberates toxic gas.

This safety data sheet was drafted on the basis of the information provided by the manufacturer.

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Glossary:

ADR: European agreement concerning the international carriage of dangerous goods by road

CAS: "Chemical Abstracts Service"; division of the American Chemical Society)

CLP: "Classification, Labelling, Packaging"

LC50: median lethal concentration

DNEL: derived no effect level.

EINECS: European inventory of existing commercial chemical substances.

GHS: general harmonised system of classification and labelling of chemical products.

LC50: lethal concentration for 50 per cent of the population tested.

LD50: lethal dose for 50 per cent of the population tested.

Log Pow: partition coefficient for n-octanol/water

NOEC: no observed effects concentration

PNEC: predicted no effect concentration.

IATA: International Air Transport Association

IMDG: international maritime dangerous goods code.
RID: regulations concerning the international carriage of dangerous goods by rail

Warning:

The information provided in this safety data sheet is based on our current knowledge with regard to the product concerned on the date of revision of the safety data sheet. The information provided in this safety data sheet complements the technical sheets but in no way replaces them.

This safety data sheet is only a support for the handling, use, processing, storage, transport, consumption and disposal of the product. It must not be seen as a guarantee or quality specification of the product concerned.

The user's attention is drawn to the potential risks encountered when a product is used for purposes other than those for which it was designed as indicated in this safety data sheet: it is the responsibility of the user to evaluate the applicability of the information and recommendations provided in this safety data sheet as well as its suitability for its own activities, objectives and products.

The supplier cannot be held responsible for any use of the product which is incompatible with the information provided in this safety data sheet.

Compliance with the instructions contained in this safety data sheet does not exonerate the user from ensuring that he is complying with the laws, regulations and recommendations concerning his own products and activities.

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