

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product form	: Substance
Trade name	: KILLBRETT®
CAS-No.	: 9012-76-4
Formula (Override)	: (C ₆ H ₁₁ NO ₄) _n
Product group	: Trade product

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	: Microbiological stabilization of wines: reduction of undesirable microorganism's populations, especially Brettanomyces.
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**Supplier**

LAMOTHE-ABIET
Avenue Ferdinand de Lesseps ZA-ACTIPOLIS
33610 CANEJAN - France
T +33557779292
contact@lamothe-abiet.com

1.4. Emergency telephone number

No additional information available

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

No additional information available

2.2. Label elements

According to EC directives or the corresponding national regulations there is no labelling obligation for this product.

No labelling applicable

2.3. Other hazards

No additional information available

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according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type : Mono-constituent
Name : KILLBRETT®
CAS-No. : 9012-76-4

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Chitosan - Natural polysaccharide exclusively of fungal origin	(CAS-No.) 9012-76-4	100	Not classified

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : If symptoms persist call a doctor.
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, wash immediately and thoroughly with 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 inhalation : Repeated or prolonged contact may cause allergic reactions in very susceptible persons. Dust of the product, if present, may cause respiratory irritation after excessive inhalation exposure.

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

Explosion hazard : Avoid raising powdered material due to explosion hazard.
Hazardous decomposition products in case of fire : Hazardous decomposition products may be released during prolonged heating like smokes, carbon monoxide and dioxide.

5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. 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

6.1.1. For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Ventilate spillage area.
Measures in case of dust release	: Avoid dust formation.

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".
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6.2. Environmental precautions

Do not flush into surface water or sewer system. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: Mechanically recover the product. Contain leaking substance, pump over in suitable containers. Clean contaminated surfaces with an excess of water.
Other information	: Dispose of materials or solid residues at an authorized site.

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	: Avoid dust formation. Store tightly closed in a dry and cool place. Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear recommended personal protective equipment.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Keep only in the original container.
Storage conditions	: Keep in a well-ventilated room. Store in a dry, cool place. Keep out of direct sunlight. Keep container tightly closed to prevent moisture pick-up.

Incompatible products	: Strong bases. Strong acids. Odour agents.
Incompatible materials	: Do not mix with oxidizing agents.
Heat and ignition sources	: Keep away from ignition sources (including static discharges).

7.3. Specific end use(s)

For œnological use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

Refer to protective measures listed in Sections 7 and 8.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

No special eye protection equipment recommended under normal conditions of use. Where excessive dust may result, wear goggles

Type	Field of application	Characteristics	Standard
Safety glasses	Dust		EN 166

8.2.2.2. Skin protection**Skin and body protection:**

Wear suitable protective clothing

Hand protection:

In case of excessive dust production. Wear protective gloves.

Other skin protection**Materials for protective clothing:**

Protective clothing

8.2.2.3. Respiratory protection**Respiratory protection:**

Wear suitable respiratory equipment in case of insufficient ventilation. EN 143. EN 149

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls**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	: Solid
Colour	: White to off-white.
Appearance	: Powder.
Odour	: odourless.

Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not applicable
Boiling point	: Not available
Flammability	: Flammable
Explosive limits	: Not applicable
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	: > 204 °C Not applicable
Auto-ignition temperature	: > 204 °C Not applicable
Decomposition temperature	: 300 – 500 °C
pH	: Not available
pH solution	: Not available
Viscosity, kinematic	: Not applicable
Solubility	: Not available
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Critical pressure	: 8 – 10 bar
Density	: Not available
Relative density	: < 1 Not applicable
Relative vapour density at 20°C	: Not applicable
Particle size	: Not available
Particle size distribution	: Not available
Particle shape	: Not available
Particle aspect ratio	: Not available
Particle aggregation state	: Not available
Particle agglomeration state	: Not available
Particle specific surface area	: Not available
Particle dustiness	: Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

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. Moisture.

10.5. Incompatible materials

Oxidation agents. Strong acids. Strong bases.

10.6. Hazardous decomposition products

See Section 5.

SECTION 11: Toxicological information

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

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

Chitosan - Natural polysaccharide exclusively of fungal origin (9012-76-4)	
LD50 oral rat	> 10000 mg/kg

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

KILLBRETT® (9012-76-4)	
Viscosity, kinematic	Not applicable

11.2. Information on other hazards

No additional information available

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SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

Chitosan - Natural polysaccharide exclusively of fungal origin (9012-76-4)

EC50 - Crustacea [1]	> 10588 mg/l Daphnia magna
ErC50 algae	> 10316 mg/l 72h/Pseudokirchneriella subcapitata

12.2. Persistence and degradability

No additional information available

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. Endocrine disrupting properties

No additional information available

12.7. 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.

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 / IMDG / IATA / ADN / RID

14.1. UN number or ID number

UN-No. (ADR) : Not regulated

UN-No. (IMDG) : Not regulated

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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
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IMDG

Transport hazard class(es) (IMDG)	: Not regulated
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IATA

Transport hazard class(es) (IATA)	: Not regulated
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ADN

Transport hazard class(es) (ADN)	: Not regulated
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RID

Transport hazard class(es) (RID)	: Not regulated
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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

Special transport precautions	: Prevent entry to sewers and public waters
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Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

14.7. Maritime transport in bulk according to IMO instruments

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

Not listed on REACH Annex XVII

Contains no substance(s) listed on the REACH Candidate List

Not listed on REACH Annex XIV (Authorisation List)

Not listed on the PIC list (Regulation EU 649/2012)

Not listed on the POP list (Regulation EU 2019/1021)

Other information, restriction and prohibition regulations : For œnological use.

15.1.2. National regulations

Germany

Water hazard class (WGK) : WGK nwg, Non-hazardous to water (Not classified according to Regulation Governing Systems for Handling Substances Hazardous to Waters (AWSV); ID No. 2986)

Major Accidents Ordinance (12. BImSchV) : Is not subject to the Major Accidents Ordinance (12. BImSchV)

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

SZW-lijst van reprotoxische stoffen –

Borstvoeding

SZW-lijst van reprotoxische stoffen – : The substance is not listed

Vruchtbaarheid

SZW-lijst van reprotoxische stoffen – : The substance is not listed

Ontwikkeling

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

Revision - See : *.

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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.