

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 31.05.2023

Version number 5 (replaces version 4)

Issue: 31.05.2023

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

· **1.1 Product identifier**

· **Trade name:** AMYLOMER H-CARE05

· **UFI:** 7500-C029-G00E-DPNN

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

No further relevant information available.

· **Application of the substance / the mixture** antistatic agent

· **1.3 Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

Gräfe Chemie GmbH

Deichstraße 48-50

D-20459 Hamburg

Tel. +49 (0)40 7602638

· **Further information obtainable from:**

Melanie Günther

Mail: info@graefe-chemie.de

· **1.4 Emergency telephone number:**

Poison Information Center North

Tel. +49 551 19240

medical advice in German and English

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**

Skin Irrit. 2 H315 Causes skin irritation.

Eye Dam. 1 H318 Causes serious eye damage.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms**



GHS05

· **Signal word** Danger

· **Hazard-determining components of labelling:**

L-Lactic acid (2-hydroxy propionic acid)

· **Hazard statements**

H315 Causes skin irritation.

H318 Causes serious eye damage.

· **Precautionary statements**

P280 Wear protective gloves / eye protection / face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

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- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**
- **Description:** cationic solution based on modified starch ether

- **Dangerous components:**

CAS: 79-33-4 EINECS: 201-196-2 Index number: 607-743-00-5 Reg.nr.: 01-2119474164-39	L-Lactic acid (2-hydroxy propionic acid) Skin Corr. 1C, H314; Eye Dam. 1, H318, EUH071	≥3-<5%
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- **SVHC**

None of the ingredients is listed.

- **Additional information** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After skin contact** Immediately rinse with water.
- **After eye contact** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing** Drink plenty of water and provide fresh air. Call for a doctor immediately.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

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· **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

· **6.4 Reference to other sections**

No dangerous substances are released.

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling** No special precautions are necessary if used correctly.

· **Information about fire - and explosion protection:** No special measures required.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage**

· **Requirements to be met by storerooms and receptacles:** No special requirements.

· **Information about storage in one common storage facility:** Not required.

· **Further information about storage conditions:** None.

· **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· **PNECs**

79-33-4 L-Lactic acid (2-hydroxy propionic acid)

PNEC	10 mg/l (sewage treatment plant)
PNEC aqua	1.3 mg/l (freshwater)

· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**

· **Appropriate engineering controls** No further data; see item 7.

· **Individual protection measures, such as personal protective equipment**

· **General protective and hygienic measures**

The usual precautionary measures are to be adhered to when handling chemicals.

· **Respiratory protection:** Not required.

· **Hand protection**



Protective gloves (EN 374)

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

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· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

· **Eye/face protection**



Safety glasses

· **Body protection:** Protective work clothing.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· Colour:	Light yellow
· Odour:	Characteristic
· Odour threshold:	Not determined.
· Melting point/freezing point:	undetermined
· Boiling point or initial boiling point and boiling range	100 °C
· Flash point:	Not applicable
· pH at 20 °C	3.8 (DIN 19268)
· Viscosity:	
· dynamic at 20 °C:	~ 400 mPas (Brookfield (LVT))
· Solubility	
· Water:	Fully miscible
· Vapour pressure at 20 °C:	23 hPa
· Density and/or relative density	
· Density at 20 °C:	~ 1.16 g/cm ³ (DIN 51757)

· **9.2 Other information**

· Appearance:	
· Form:	Fluid
· Important information on protection of health and environment, and on safety.	
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.

· **Information with regard to physical hazard classes**

· Explosives	not applicable
· Flammable gases	not applicable
· Aerosols	not applicable
· Oxidising gases	not applicable
· Gases under pressure	not applicable
· Flammable liquids	not applicable
· Flammable solids	not applicable
· Self-reactive substances and mixtures	not applicable
· Pyrophoric liquids	not applicable
· Pyrophoric solids	not applicable

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· Self-heating substances and mixtures	not applicable
· Substances and mixtures, which emit flammable gases in contact with water	not applicable
· Oxidising liquids	not applicable
· Oxidising solids	not applicable
· Organic peroxides	not applicable
· Corrosive to metals	not applicable
· Desensitised explosives	not applicable

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:

79-33-4 L-Lactic acid (2-hydroxy propionic acid)

Oral	LD ₅₀	3,543 mg/kg (Rat (Female)) (EPA OPP 81-1)
Dermal	LD ₅₀	>2,000 mg/kg (rabbit) (EPA OPP 81-2)

222021-85-4 Starch, 2-hydroxypropyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride

Cytotoxicity	(EN-ISO 10993-5)
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· **Skin corrosion/irritation**

Causes skin irritation

222021-85-4 Starch, 2-hydroxypropyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride

Irritation of skin	OECD 439	(human skin model)
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· **Serious eye damage/irritation**

Causes serious eye damage.

222021-85-4 Starch, 2-hydroxypropyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride

Irritation of eyes	OECD 437	(Bovine Corneal Opacity and Permeability)
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- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

· **Germ cell mutagenicity**

222021-85-4 Starch, 2-hydroxypropyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride

Ames-Test	(OECD 471)
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- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.

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- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
The product was not tested. The statements is derived from the characteristics of the single components.
- **11.2 Information on other hazards**

· Endocrine disrupting properties
None of the ingredients is listed.

SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

79-33-4 L-Lactic acid (2-hydroxy propionic acid)	
LC ₅₀ /96 h	130 mg/l (Oncorhynchus mykiss)
EC ₅₀ /48 h	130 mg/l (Daphnia magna) (OECD 202)
EC ₅₀ /72 h	>2.8 mg/l (Pseudokirchneriella subcapitata) (OECD 201)

- **12.2 Persistence and degradability** No further relevant information available.
- **Other Information:** No data available

- **12.3 Bioaccumulative potential** No further relevant information available.

- **12.4 Mobility in soil** No further relevant information available.

- **12.5 Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

- **12.7 Other adverse effects**

- **Additional ecological information:**

- **General notes:**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**

- **Recommendation** Must be specially treated adhering to official regulations.

- **Waste disposal key:**

The allocation of the waste disposal key number is to be executed after the European refuse catalog industry and process specifically.

- **Uncleaned packaging:**

- **Recommendation:** Disposal must be made according to official regulations.

- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- **14.1 UN number or ID number**

- **ADR, ADN, IMDG, IATA**

not applicable

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- **14.2 UN proper shipping name**
· **ADR, ADN, IMDG, IATA** not applicable
- **14.3 Transport hazard class(es)**
· **ADR, ADN, IMDG, IATA**
· **Class** not applicable
- **14.4 Packing group**
· **ADR, IMDG, IATA** 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** Not applicable.
- **UN "Model Regulation":** not applicable

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

· Regulation (EU) No 649/2012

None of the ingredients is listed.

· DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

· REGULATION (EU) 2019/1148

· Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

· Annex II - REPORTABLE EXPLOSIVES PRECURSORS
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None of the ingredients is listed.

· Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

· Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

- **National regulations**

- **Waterhazard class:**

Water hazard class 1 (Self-assessment): slightly hazardous for water.

AwSV (Germany), Attachment 1 (5.2)

- **MAL-Code:** 5-4

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· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Classification according to Regulation (EC) No 1272/2008**

Skin corrosion/irritation Serious eye damage/eye irritation	The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.
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· **Department issuing SDS:** Department laboratory

· **Version number of previous version:** 3

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ALD: Approximate Lethal Dose

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

MAL-Code: Måleteknisk Arbejdshygiejnisk Luftbehov (Regulation for the labeling concerning inhalation hazards, Denmark)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Skin Corr. 1C: Skin corrosion/irritation – Category 1C

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1