

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

Printing date 18.08.2022

Version number 4 (replaces version 3)

Issue: 18.08.2022

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

· **1.1 Product identifier**

· Trade name: **AMYLOMER H-CARE05**

· **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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— EU —

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

· **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**  
CO<sub>2</sub>, 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**

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

· **9.2 Other information**

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

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

· <b>Explosives</b>	not applicable
· <b>Flammable gases</b>	not applicable
· <b>Aerosols</b>	not applicable
· <b>Oxidising gases</b>	not applicable
· <b>Gases under pressure</b>	not applicable
· <b>Flammable liquids</b>	not applicable
· <b>Flammable solids</b>	not applicable
· <b>Self-reactive substances and mixtures</b>	not applicable
· <b>Pyrophoric liquids</b>	not applicable
· <b>Pyrophoric solids</b>	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 <sub>50</sub>	3,543 mg/kg (Rat (Female)) (EPA OPP 81-1)
Dermal	LD <sub>50</sub>	>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**

· <b>Endocrine disrupting properties</b>
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None of the ingredients is listed.
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### SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

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

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