

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

Printing date 13.04.2022

Version number 8 (replaces version 7)

Issue: 13.04.2022

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

· **Trade name:** **AMYLOMER CAT 531 AS+**  
**UFI:** TNH1-70RT-U00X-6630

**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 Irrit. 2 H319 Causes serious eye irritation.

**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**

GHS07

**Signal word** Warning**Hazard statements**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

**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.

P337+P313 If eye irritation persists: Get medical advice/attention.

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

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· **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)	≥2.5-<3%
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. If symptoms persist, 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.

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

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

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**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.

· **Penetration time of glove material**

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

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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**

**R** 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 (7732-18-5 water, distilled, conductivity or of similar purity)
· <b>Flash point:</b>	Not applicable
· <b>pH at 20 °C</b>	3.8
· <b>Viscosity:</b>	
· <b>dynamic at 20 °C:</b>	500 - 1000 mPa*s (Brookfield)
· <b>Solubility</b>	
· <b>Water:</b>	Fully miscible
· <b>Vapour pressure at 20 °C:</b>	23 hPa (7732-18-5 water, distilled, conductivity or of similar purity)
· <b>Density and/or relative density</b>	
· <b>Density at 20 °C:</b>	ca. 1.13 g/cm <sup>3</sup>

· **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
· <b>Self-heating substances and mixtures</b>	not applicable

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|--|----------------|
| · <b>Substances and mixtures, which emit flammable gases in contact with water</b> | not applicable |
| · <b>Oxidising liquids</b>   | not applicable |
| · <b>Oxidising solids</b>  | not applicable |
| · <b>Organic peroxides</b>   | not applicable |
| · <b>Corrosive to metals</b>   | not applicable |
| · <b>Desensitised explosives</b>   | 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) (EPA OPP 81-1)
Dermal	LD <sub>50</sub>	>2,000 mg/kg (rab) (EPA OPP 81-2)

#### 56780-58-6 Starch, 2-hydroxy-3-trimethylammoniopropyl ether, chloride

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

Causes skin irritation.

#### 56780-58-6 Starch, 2-hydroxy-3-trimethylammoniopropyl ether, chloride

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

Causes serious eye irritation.

#### 56780-58-6 Starch, 2-hydroxy-3-trimethylammoniopropyl 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**

Based on available data, the classification criteria are not met.

#### 56780-58-6 Starch, 2-hydroxy-3-trimethylammoniopropyl 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)
EC <sub>50</sub> /48 h	130 mg/l (Daphnia magna) (OECD 202)
EC <sub>50</sub> /72 h	>2.8 mg/l (Pseudokirchneriella subcapitata) (OECD 201)

- **12.2 Persistence and degradability**

biodegradability	94 % (28d) (OECD 302 B (Zahn-Wellens/EMPA Test))
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- **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 product 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

· <b>Regulation (EU) No 649/2012</b>
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None of the ingredients is listed.
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· <b>DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II</b>
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None of the ingredients is listed.
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· <b>REGULATION (EU) 2019/1148</b>
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· <b>Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))</b>
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None of the ingredients is listed.
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· <b>Annex II - REPORTABLE EXPLOSIVES PRECURSORS</b>
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None of the ingredients is listed.
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· <b>Regulation (EC) No 273/2004 on drug precursors</b>
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None of the ingredients is listed.
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· <b>Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors</b>
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None of the ingredients is listed.
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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.

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**· 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:** 7

· **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)

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

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

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