

# SAFETY DATA SHEET

In accordance with 1907/2006 annex II 2015/830 and 1272/2008  
(All references to EU regulations and directives are abbreviated into only the numeric term)  
Revision date 2021-09-20  
Replaces SDS issued 2021-08-24  
Version number 4.0



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

### 1.1. Product identifier

Trade name	Immobilized GlycINATOR®
Article number	A0-GL6-002, A0-GL6-005, A0-GL6-010, A0-GL6-025, A0-GL6-050, A0-GL6-100, A0-GL6-1000, L1-AZ1-025, L1-AZ1-100, L1-AZ1-200, A0-GF6-010, T1-TGF-010, T1-TGA-010

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

Identified uses	Antibody deglycosylation reagent
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### 1.3. Details of the supplier of the safety data sheet

Company	Genovis AB Box 790 22007 LUND Sweden
Telephone	+46 (0)46 10 12 30
E-mail	info@genovis.com

### 1.4. Emergency telephone number

Acute cases: Call 112, request poison information.

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Flam. Liq. 3, H226  
(See section 16)

### 2.2. Label elements

Hazard pictogram



Signal word	Warning
Hazard statement	
H226	Flammable liquid and vapour
Precautionary statements	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P403+P235	Store in a well-ventilated place. Keep cool
P501	Dispose of contents and container to authorised waste disposal facility

### 2.3. Other hazards

This product does not contain any substances that are assessed to be a PBT or a vPvB

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

Note that the table shows known hazards of the ingredients in pure form. These hazards are reduced or eliminated when mixed or diluted, see Section 16d.

Constituent	Classification	Concentration
<b>ETHYL ALCOHOL</b>		
CAS No: 64-17-5 EC No: 200-578-6 Index No: 603-002-00-5 REACH: 01-2119457610-43	Flam. Liq. 2; H225	10 - 20 %
<b>GlycINATOR®</b>		
		1 - 10 %

Explanations to the classification and labelling of the ingredients are given in Section 16e. Official abbreviations are printed in normal font. Text in italics are specifications and/or complements used in the calculation of the classification of this mixture, see Section 16b.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### Generally

In case of concern, or if symptoms occur, call a doctor/physician.

#### Upon breathing in

Fresh air and rest. If symptoms persist seek medical advice.

#### Upon eye contact

As a precaution, rinse the eye thoroughly with water; If symptoms occur, call a doctor/physician.

#### Upon skin contact

Normal washing of the skin is considered sufficient; If nevertheless symptoms do occur, contact a physician.

#### Upon ingestion

Rinse nose, mouth and throat with water.

If symptoms persist contact a doctor.

### 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

Symptomatic treatment.

## SECTION 5: Fire-fighting measures

### 5.1. Extinguishing media

#### Recommended extinguishing agents

Extinguish with water mist, powder, carbon dioxide or alcoholresistant foam.

#### Unsuitable extinguishing agents

May not be extinguished with water dispersed under high pressure.

### 5.2. Special hazards arising from the substance or mixture

Flammable liquid.

Emits flammable vapours which may form an explosive mixture with air.

Produces fumes containing harmful gases (carbon monoxide and carbon dioxide) when burning, and, in case of incomplete combustion, aldehydes and other toxic, harmful, irritant or environmentally harmful substances.

### 5.3. Advice for fire-fighters

Protective measures should be taken regarding other material at the site of the fire.

In case of fire use proper breathing apparatus.

Wear full protective clothing.

Cool closed containers that were exposed to fire with water.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Note the risk of ignition.

Use recommended safety equipment, see section 8.

Switch off equipment which has an exposed flame, glows, or has a heat source of some other kind.

Switch off power at the main switch. Do not use the power switch in the room where the spillage has occurred.

Note, risk for formation of sparks due to static electricity. Do not remove clothing in a room where spillage has occurred.

Evacuate the accident area and call an ambulance, if relevant.

Keep unauthorized and unprotected people at a safe distance.

Do not inhale vapours and avoid contact with skin, eyes and clothes when cleaning up the spillage.

Ensure good ventilation.

Use breathing apparatus when oxygen levels are low or unknown.

### 6.2. Environmental precautions

Avoid release to drains, soil or watercourses.

Prevent from entering sewers, basements and pits, or any place where gas accumulation could be dangerous.

Notify rescue services for larger spillage.

### 6.3. Methods and material for containment and cleaning up

Do NOT use tools emitting sparks when cleaning.

Absorb the liquid with an inert absorbent, vermiculite, for example. Collect the material for disposal at a waste disposal facility.

Residues left behind after cleaning shall be treated as hazardous waste. For further information, contact the local authority sanitisation works. Present this safety data sheet.

Ensure good ventilation after sanitation.

### 6.4. Reference to other sections

See also section 8 and 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

The usual precautions for handling chemicals should be observed.

Handle in premises with good ventilation.

Open fire, hot items, sparks or other ignition sources must not be present in the environment used for handling this product.

The product may be electrostatically charged. Always ground the containers while transferring the contents from one container to another. Do not use tools that may cause sparks.

Do not inhale the fumes and avoid exposure to skin, eyes and clothing.

Do not eat, drink or smoke in premises where this product is handled.

Store this product separately from food items and keep it out of the reach of children and pets.

Wash your hands after using the product.

Remove contaminated clothing.

Wash contaminated clothing before reuse.

Handle only in closed equipment. For personal protection e.g. in connection with service, see section 8.

### 7.2. Conditions for safe storage, including any incompatibilities

This product should be stored well out of reach of young children and kept safely apart from products intended for consumption.

The product should be stored in a manner which prevents hazards to health and the environment. Avoid exposure to humans and animals and do not discharge the product in a sensitive environment.

Always use sealed and visibly labeled packages.

Store tightly, in original packaging.

Store in a well-ventilated space.

Store only in the original package.

Store in a dry and segregated area.

Store as flammable liquid.

Do not store in direct sunlight.

Store at 4 - 8 °C.

### 7.3. Specific end uses

See identified uses in Section 1.2.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1. National limit values

##### ETHYL ALCOHOL

United Kingdom (EH40/2005)

Time-weighted-average exposure limit (TWA) 1000 ppm / 1920 mg/m<sup>3</sup>

#### DNEL

##### ETHYL ALCOHOL

	Type of exposure	Route of exposure	Value
Worker	Acute Local	Inhalation	1900 mg/m <sup>3</sup>
Consumer	Chronic Systemic	Inhalation	114 mg/m <sup>3</sup>
Worker	Chronic Systemic	Dermal	343 mg/kg bw/d
Worker	Chronic Systemic	Inhalation	950 mg/m <sup>3</sup>
Consumer	Acute Local	Inhalation	950 mg/m <sup>3</sup>
Consumer	Acute Local	Dermal	950 mg/m <sup>3</sup>
Consumer	Chronic Systemic	Oral	87 mg/kg
Consumer	Chronic Systemic	Dermal	206 mg/kg bw/d

#### PNEC

##### ETHYL ALCOHOL

Environmental protection target	PNEC value
Fresh water	0.96 mg/l
Freshwater sediments	3.6 mg/kg
Marine water	0.79 mg/l
Marine sediments	2.9 mg/kg
Microorganisms in sewage treatment	580 mg/l
Soil (agricultural)	0.63 mg/kg

### 8.2. Exposure controls

In terms of minimizing risks, attention must be paid to the physical hazards (see Sections 2 and 10) of this product according to EU directives 89/391 and 98/24 and national occupational legislation.

#### 8.2.1. Appropriate engineering controls

Handle in premises with good ventilation.

Emergency showers and eye-rinsing facilities must be available at the workplace.

Use local exhaust ventilation.

#### Eye/face protection

Eye protection should be worn if there is any danger of direct exposure or splashing.

#### Skin protection

Protective gloves are normally not needed due to the properties of this product, but may be necessary for other reasons, e.g. mechanical risks, temperature conditions or microbiological risks.

Wear suitable protective clothing when necessary.

#### Respiratory protection

Use appropriate respiratory protective equipment in case of insufficient ventilation.

Gas filter AX is recommended.

#### 8.2.3. Environmental exposure controls

For limitation of environmental exposure, see Section 12.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

a) Appearance	Form: suspension and liquid. Colour: Solution : Colourless. / Suspension : White.
b) Odour	Sweetish. Alcohol-like. [Slight]
c) Odour threshold	Not indicated
d) pH	Not indicated
e) Melting point/freezing point	Not indicated
f) Initial boiling point and boiling range	80 °C
g) Flash point	>23 - <60 °C
h) Evaporation rate	Not indicated
i) Flammability (solid, gas)	Not applicable
j) Upper/lower flammability or explosive limits	Not indicated
k) Vapour pressure	Not indicated
l) Vapour density	Not indicated
m) Relative density	Not indicated
n) Solubility	Not indicated
o) Partition coefficient: n-octanol/water	Not applicable
p) Auto-ignition temperature	Not indicated
q) Decomposition temperature	Not indicated
r) Viscosity	Not indicated
s) Explosive properties	Not applicable
t) Oxidising properties	Not applicable

### 9.2. Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Vapour can create explosive mixtures with air.

### 10.2. Chemical stability

The product is stable at normal storage and handling conditions.

### 10.3. Possibility of hazardous reactions

May emit volatile, flammable vapours. Avoid handling close to heat or ignition sources.

### 10.4. Conditions to avoid

Avoid heat, sparks and open flames.  
Protect from moisture.  
Protect from heat and direct sunlight.

### 10.5. Incompatible materials

Avoid contact with oxidizers.  
Avoid contact with acids.

### 10.6. Hazardous decomposition products

None under normal conditions.

## SECTION 11: Toxicological information

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

Not indicated.

#### Acute toxicity

The product is not classified as acutely toxic.

#### ETHYL ALCOHOL

LD50 rabbit 24h: > 20000 mg/kg Dermal  
LC50 rat 4h: 124.7 mg/L Inhalation  
LD50 rat 24h: 6200 mg/kg Orally  
ATE : 1394 mg/kg Orally

**Skin corrosion/irritation**

The mixture is judged as a whole and is classified to be neither corrosive nor irritant to skin. Mild irritation may occur on prolonged or repeated exposure.

**Serious eye damage/irritation**

Eye contact may cause burning pain or irritation.

The criteria for classification cannot be considered fulfilled based on available data.

**Respiratory or skin sensitisation**

The product is not classified as sensitising.

**Germ cell mutagenicity**

No mutagenic effects have been reported for the substance in this mixture.

**Carcinogenicity**

No carcinogenic effects have been reported for the substances in this product.

**Reproductive toxicity**

No toxic effects to reproduction have been reported for the substances in this mixture.

**STOT-single exposure**

The criteria for classification cannot be considered fulfilled based on available data.

Breathing may cause headache, vertigo, weakness and sickness.

**STOT-repeated exposure**

The criteria for classification cannot be considered fulfilled based on available data.

Prolonged or repeated inhalation of solvents may cause headache, dizziness, fatigue and possible damage to the central nervous system.

**Aspiration hazard**

The product is not classified as being toxic for aspiration.

## SECTION 12: Ecological information

**12.1. Toxicity**

Prevent release on land, in water and drains.

No ecological damage is known or expected in the event of normal use.

**ETHYL ALCOHOL**

LC50 Rainbow trout (*Oncorhynchus mykiss*) 96h: 13480 mg/L

LC50 fathead minnow (*Pimephales promelas*) 96h: 13480 mg/L

LC50 Freshwater water flea (*Daphnia magna*) 48h: 5400 mg/L

EC50 Freshwater water flea (*Daphnia magna*) 48 h: 9268 mg/L

LC50 Ide (*Leuciscus idus*) 48h: 8140 mg/L

EC50 Freshwater water flea (*Daphnia magna*) 24h: 10800 mg/l

IC50 Algae 72h: > 10.9 mg/L

LC50 Common Bleak (*Alburnus alburnus*) 96h: 11000 mg/L

LC50 Rainbow trout (*Oncorhynchus mykiss*) 24h: 11200 mg/L

IC50 *Pseudomonas* (*Pseudomonas putida*) 16h: 6500 mg/L

**12.2. Persistence and degradability**

The components of the product degrades in the natural environment.

**12.3. Bioaccumulative potential**

This product or its constituents are not expected to accumulate in nature.

**12.4. Mobility in soil**

The product is miscible with water and is therefore variable in soil and water.

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

This product does not contain any substances that are assessed to be a PBT or a vPvB.

**12.6. Other adverse effects**

Not indicated.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Waste handling of the product

Avoid discharge into sewers.

This product is not usually recycled.

Discarded products must be disposed of as hazardous waste in accordance with regulations.

The product is flammable and its waste shall therefore, if it is not treated in order to eliminate this risk, be considered to be dangerous.

Observe local regulations.

See directive 2008/98/EC on waste. Observe national or regional provisions on waste management.

## SECTION 14: Transport information

Where not otherwise stated the information applies to all of the UN Model Regulations, i.e. ADR (road), RID (railway), ADN (inland waterways), IMDG (sea), and ICAO (IATA) (air).

### 14.1. UN number

1993

### 14.2. UN proper shipping name

FLAMMABLE LIQUID, N.O.S. (ETHYL ALCOHOL)

### 14.3. Transport hazard class(es)

#### Class

3: Flammable liquids

#### Classification code (ADR/RID)

F1: Flammable liquids having a flash-point of or below 60 °C

#### Subsidiary risk (IMDG)

No subsidiary risk according to IMDG

#### Labels



### 14.4. Packing group

Packing group III

### 14.5. Environmental hazards

Not applicable

### 14.6. Special precautions for user

#### Tunnel restrictions

Tunnel category: D/E

### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable

### 14.8 Other transport information

Transport category: 3; Maximum total quantity per transport unit: 1000 kgs or litres (ADR 1.1.3.6)

Stowage category A (IMDG)

Emergency Schedule (EmS) for FIRE (IMDG) F-E

Emergency Schedule (EmS) for SPILLAGE (IMDG) S-E

## SECTION 15: Regulatory information

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

Not indicated.

### 15.2. Chemical safety assessment

Assessment and chemical safety report in accordance with 1907/2006 Annex I has not yet been performed.

## SECTION 16: Other information

### 16a. Indication of where changes have been made to the previous version of the safety data sheet

#### Revisions of this document

Earlier versions

2021-08-24 Changes in section(s) 3, 9.

### 16b. Legend to abbreviations and acronyms used in the safety data sheet

#### Full texts for Hazard Class and Category Code mentioned in section 3

Flam. Liq. 2 Flammable liquids, Hazard Category 2 - Flam. Liq. 2, H225 - Highly flammable liquid and vapour

Flam. Liq. 3 Flammable liquids, Hazard Category 3 - Flam. Liq. 3, H226 - Flammable liquid and vapour

#### Explanations of the abbreviations in Section 14

ADR European Agreement concerning the International Transport of Dangerous Goods by Road

RID Regulations concerning the International Transport of Dangerous Goods by Rail

IMDG International Maritime Dangerous Goods Code

ICAO International Civil Aviation Organization (ICAO, 999 University Street, Montreal, Quebec H3C 5H7, Canada)

IATA The International Air Transport Association

Tunnel restriction code: D/E; Transport by bulk or via tank: Passage forbidden through tunnels of category D and E, Other transportation means: Passage forbidden through tunnels of category E

Transport category: 3; Maximum total quantity per transport unit: 1000 kgs or litres (ADR 1.1.3.6)

### 16c. Key literature references and sources for data

#### Sources for data

Primary data for the calculation of the hazards has preferentially been taken from the official European classification list, 1272/2008 Annex I, as updated to 2021-09-20.

Where such data was not available, alternative documentation used to establish the official classification was used, e.g. IUCLID (International Uniform Chemical Information Database). As a second alternative, information was used from reputable international chemical industries, and as a third alternative other available information was used, e.g. material safety data sheets from other suppliers or information from non-profit associations, where reliability of the source was assessed by expert opinion. If, in spite of this, reliable information could not be sourced, the hazards were assessed by expert opinions based on the known hazards of similar substances, and according to the principles in 1907/2006 and 1272/2008.

#### Full texts for Regulations mentioned in this Safety Data Sheet

- 1907/2006 REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC
- 2015/830 COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
- 1272/2008 REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
- 89/391 COUNCIL DIRECTIVE (89/391/EEC) of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work
- 98/24 COUNCIL DIRECTIVE 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work (fourteenth individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC)
- 2008/98/EC DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on waste and repealing certain Directives

### 16d. Methods of evaluating information referred to in 1272/2008 Article 9 which was used for the purpose of classification

Hazard calculation for this mixture has been performed as a cumulative assessment with the aid of expert assessments in



accordance with 1272/2008 Annex I , where all available information which may be significant to establishing the hazards of the mixture was assessed together, and in accordance with 1907/2006 Annex XI .

**16e. List of relevant hazard statements and/or precautionary statements**

**Full texts for hazard statements mentioned in section 3**

H225 Highly flammable liquid and vapour

**16f. Advice on any training appropriate for workers to ensure protection of human health and the environment**

**Warning for misuse**

This product can cause harm if used improperly. The manufacturer, the distributor or the supplier are not responsible for adverse effects if the product is not handled in accordance with its intended use.

**Other relevant information**

Not indicated

**Editorial information**



This material safety data sheet has been prepared and checked by KemRisk®, KemRisk Sweden AB, Platensgatan 8, SE-582 20 Linköping, Sweden, [www.kemrisk.se](http://www.kemrisk.se)

# SAFETY DATA SHEET

In accordance with 1907/2006 annex II 2015/830 and 1272/2008  
(All references to EU regulations and directives are abbreviated into only the numeric term)

Revision date 2021-09-21

Replaces SDS issued 2021-06-23

Version number 2.0



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

### 1.1. Product identifier

Trade name TransINATOR™  
Article number T0-TG1-010, T1-TGF-010, T1-TGA-010

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

Identified uses Antibody labeling

### 1.3. Details of the supplier of the safety data sheet

Company Genovis AB  
Box 790  
22007 LUND  
Sweden  
Telephone +46 (0)46 10 12 30  
E-mail info@genovis.com

### 1.4. Emergency telephone number

Acute cases: Call 112, request poison information.

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Upon assessment, this mixture is not classified as hazardous according to 1272/2008

### 2.2. Label elements

Hazard pictogram Not applicable  
Signal word Not applicable  
Hazard statement Not applicable

### 2.3. Other hazards

Not indicated.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

Note that the table shows known hazards of the ingredients in pure form. These hazards are reduced or eliminated when mixed or diluted, see Section 16d.

Constituent	Classification	Concentration
TransINATOR™		
		≤20 %

Explanations to the classification and labelling of the ingredients are given in Section 16e. Official abbreviations are printed in normal font. Text in italics are specifications and/or complements used in the calculation of the classification of this mixture, see Section 16b.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### Generally

In case of concern, or if symptoms persist, call a doctor/physician.

#### Upon breathing in

Allow the injured person to rest in a warm place with fresh air, if symptoms persist seek medical attention.

#### Upon eye contact

If dust has come in contact with eyes, do not rub.

Rinse the eye for several minutes with lukewarm water. If irritation persists call a doctor.

#### Upon skin contact

Normal washing of the skin is considered sufficient; If nevertheless symptoms do occur, contact a physician.

#### Upon ingestion

Rinse nose, mouth and throat with water.

Immediately drink a few glasses of water or milk.

Upon ingestion of larger amounts, consult a doctor/physician.

### 4.2. Most important symptoms and effects, both acute and delayed

#### Upon breathing in

Inhalation of dust may cause sneezing and burning pain in nose and throat.

#### Upon eye contact

Irritation may occur due to mechanical abrasion.

### 4.3. Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

## SECTION 5: Fire-fighting measures

### 5.1. Extinguishing media

Extinguish with water mist, powder, carbon dioxide or alcoholresistant foam.

### 5.2. Special hazards arising from the substance or mixture

In case of fire, substances hazardous to health, or substances harmful in other respects, may be dispersed.

### 5.3. Advice for fire-fighters

Protective measures should be taken regarding other material at the site of the fire.

In case of fire use proper breathing apparatus.

Wear full protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Use recommended safety equipment, see section 8.

Avoid inhalation and exposure to skin and eyes.

Avoid dust formation.

Ensure good ventilation.

### 6.2. Environmental precautions

Avoid discharge into soil, water or sewers.

### 6.3. Methods and material for containment and cleaning up

Carefully collect the product without generating dust and dispose of at a waste collection point.

Rinse area thoroughly with water.

### 6.4. Reference to other sections

See section 8 and 13 for personal protection equipment and disposal considerations.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Take the necessary preventive and protective measures for safe handling.
- Implement appropriate engineering controls if necessary, see Section 8.
- Use recommended safety equipment, see section 8.
- Store this product separately from food items and keep it out of the reach of children and pets.
- Do not eat, drink or smoke in premises where this product is handled.
- Avoid handling in a manner which will raise dust.
- Avoid spillage, inhalation and contact with eyes and skin.
- Wash your hands after using the product.
- Wash contaminated clothing before reuse.

### 7.2. Conditions for safe storage, including any incompatibilities

- This product should be stored well out of reach of young children and kept safely apart from products intended for consumption.
- Always use sealed and visibly labeled packages.
- Store in a well-ventilated space.
- Store in a cool and dry place (above freezing temperature and not greater than 30°C).

### 7.3. Specific end uses

- See identified uses in Section 1.2.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1. National limit values

- All ingredients (cf. Section 3) lack occupational exposure limit values.

#### DNEL

- No data available.

#### PNEC

- No data available.

### 8.2. Exposure controls

- Avoid dust formation.
- The risks posed by the product or its constituents must be considered in the task specific risk assessment, in accordance with current working environment legislation. The risk assessment should be reviewed regularly and updated if necessary.

#### 8.2.1. Appropriate engineering controls

- The ventilation in the workplace must ensure an air quality that meets the requirements of the current working environment legislation. Local exhaust ventilation should be used to remove airborne contaminants at the source.

#### Eye/face protection

- Use dust protective glasses when handling may create dust.

#### Skin protection

- Wear suitable protective clothing when necessary.
- Protective gloves are normally not needed due to the properties of this product, but may be necessary for other reasons, e.g. mechanical risks, temperature conditions or microbiological risks.
- The most suitable protective glove should be chosen in consultation with the glove supplier, taking into account the risk assessment for the specific task and the properties of the chemicals involved. Note that the breakthrough time of the material is affected by the duration of the exposure, temperature conditions, abrasion, etcetera.
- Based on the chemical properties of the product, the following glove materials are recommended (EN 374):
  - Nitrile rubber.

#### Respiratory protection

- Use appropriate respiratory protective equipment in case of insufficient ventilation.
- The most appropriate respiratory protective equipment should be decided in consultation with the appointed safety representative, taking into account the risk assessment for the specific task.
- Based on the physical and chemical properties of the product, the following filter type(s) and/or filter combination(s) are recommended:
  - P2.

### 8.2.3. Environmental exposure controls

For limitation of environmental exposure, see Section 12.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

a) Appearance	Form: lyophilised powder.
b) Odour	Not indicated
c) Odour threshold	Not indicated
d) pH	When supplied, pH is: Not indicated In working solution the pH value is: >7.6 - <8
e) Melting point/freezing point	Not indicated
f) Initial boiling point and boiling range	Not indicated
g) Flash point	Not indicated
h) Evaporation rate	Not indicated
i) Flammability (solid, gas)	Not applicable
j) Upper/lower flammability or explosive limits	Not indicated
k) Vapour pressure	Not indicated
l) Vapour density	Not indicated
m) Relative density	Not indicated
n) Solubility	Solubility in water: Extremely soluble(40-99%)
o) Partition coefficient: n-octanol/water	Not applicable
p) Auto-ignition temperature	Not indicated
q) Decomposition temperature	Not indicated
r) Viscosity	Not indicated
s) Explosive properties	Not applicable
t) Oxidising properties	Not applicable

### 9.2. Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No information available.

### 10.2. Chemical stability

The product is stable at normal storage and handling conditions.

### 10.3. Possibility of hazardous reactions

No information available.

### 10.4. Conditions to avoid

No information available.

### 10.5. Incompatible materials

Avoid contact with oxidizers.

### 10.6. Hazardous decomposition products

When thermal decomposition occurs, the following substances are formed.:

Sodium oxide.

Carbon oxides.

Hydrochloric acid (HCl).

## SECTION 11: Toxicological information

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

Information on possible health hazards are based on experience and / or toxicological properties of several components in the product.

#### Acute toxicity

The product is not classified as acutely toxic.

#### Skin corrosion/irritation

The product is not classified for skin corrosion/irritation.

#### Serious eye damage/irritation

The product is not classified for serious eye damage/eye irritation.

#### Respiratory or skin sensitisation

The product is not classified as sensitising.

#### Germ cell mutagenicity

The product is not classified as mutagen.

#### Carcinogenicity

The product is not classified as carcinogenic.

#### Reproductive toxicity

The product is not classified as a reproductive toxicant.

#### STOT-single exposure

The product is not classified for specific organ toxicity after single exposure.

#### STOT-repeated exposure

The product is not classified for specific organ toxicity after repeated exposure.

#### Aspiration hazard

The product is not classified as being toxic for aspiration.

## SECTION 12: Ecological information

### 12.1. Toxicity

The product is not to be labelled as a environmental hazard. However, it is not inconceivable that large emissions, or repeated small emissions, can have a harmful effect on the environment.

Prevent release on land, in water and drains.

### 12.2. Persistence and degradability

There is no information regarding persistence or degradability.

### 12.3. Bioaccumulative potential

There is no information regarding bioaccumulation.

### 12.4. Mobility in soil

The product is soluble in water and is therefore mobile in soil and water.

### 12.5. Results of PBT and vPvB assessment

No data available.

### 12.6. Other adverse effects

Data lacking.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Waste handling of the product

Avoid discharge into sewers.

The product is not classified as hazardous waste.

Empty, rinsed packaging is sent for recycling where practicable.

See directive 2008/98/EC on waste. Observe national or regional provisions on waste management.

#### Classification according to 2008/98/EC

Recommended LoW-code: 18 02 03 Wastes whose collection and disposal is not subject to special requirements in order to prevent infection

## SECTION 14: Transport information

Where not otherwise stated the information applies to all of the UN Model Regulations, i.e. ADR (road), RID (railway), ADN (inland waterways), IMDG (sea), and ICAO (IATA) (air).

### 14.1. UN number

Not classified as dangerous goods

### 14.2. UN proper shipping name

Not applicable

### 14.3. Transport hazard class(es)

Not applicable

### 14.4. Packing group

Not applicable

### 14.5. Environmental hazards

Not applicable

### 14.6. Special precautions for user

Not applicable

### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable

### 14.8 Other transport information

Not applicable

## SECTION 15: Regulatory information

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

Not indicated.

### 15.2. Chemical safety assessment

Assessment and chemical safety report in accordance with 1907/2006 Annex I has not yet been performed.

## SECTION 16: Other information

### 16a. Indication of where changes have been made to the previous version of the safety data sheet

#### Revisions of this document

Earlier versions

2021-06-23 Changes in section(s) 2, 3, 4, 6, 7, 8, 9, 11, 13, 16.

### 16b. Legend to abbreviations and acronyms used in the safety data sheet

#### Explanations of the abbreviations in Section 14

ADR European Agreement concerning the International Transport of Dangerous Goods by Road

RID Regulations concerning the International Transport of Dangerous Goods by Rail

IMDG International Maritime Dangerous Goods Code

ICAO International Civil Aviation Organization (ICAO, 999 University Street, Montreal, Quebec H3C 5H7, Canada)

IATA The International Air Transport Association

### 16c. Key literature references and sources for data

#### Sources for data

Primary data for the calculation of the hazards has preferentially been taken from the official European classification list, 1272/2008 Annex I, as updated to 2021-09-21.

Where such data was not available, alternative documentation used to establish the official classification was used, e.g. IUCLID (International Uniform Chemical Information Database). As a second alternative, information was used from reputable international chemical industries, and as a third alternative other available information was used, e.g. material safety data sheets from other suppliers or information from non-profit associations, where reliability of the source was assessed by expert opinion. If, in spite of this, reliable information could not be sourced, the hazards were assessed by expert opinions based on the known hazards of similar substances, and according to the principles in 1907/2006 and 1272/2008.

#### Full texts for Regulations mentioned in this Safety Data Sheet

1907/2006 REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

- 2015/830 COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
- 1272/2008 REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
- 2008/98/EC DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on waste and repealing certain Directives

**16d. Methods of evaluating information referred to in 1272/2008 Article 9 which was used for the purpose of classification**

Hazard calculation for this mixture has been performed as a cumulative assessment with the aid of expert assessments in accordance with 1272/2008 Annex I, where all available information which may be significant to establishing the hazards of the mixture was assessed together, and in accordance with 1907/2006 Annex XI.

**16e. List of relevant hazard statements and/or precautionary statements**

**16f. Advice on any training appropriate for workers to ensure protection of human health and the environment**

**Warning for misuse**

Not indicated.

**Other relevant information**

Not indicated

**Editorial information**



This material safety data sheet has been prepared and checked by KemRisk®, KemRisk Sweden AB, Platensgatan 8, SE-582 20 Linköping, Sweden, [www.kemrisk.se](http://www.kemrisk.se)



# SAFETY DATA SHEET

In accordance with 1907/2006 annex II 2015/830 and 1272/2008  
(All references to EU regulations and directives are abbreviated into only the numeric term)

Amendment date 2021-08-24

Replaces SDS issued 2021-07-08

Revision date 2021-05-14

Version number 2.2



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

### 1.1. Product identifier

Trade name	Immobilized FucosEXO™
Article number	G1-FM6-025, G1-FM6-050, A0-GF6-010, T1-TGA-010

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

Identified uses	Protein deglycosylation reagent
-----------------	---------------------------------

### 1.3. Details of the supplier of the safety data sheet

Company	Genovis AB Box 790 22007 LUND Sweden
Telephone	+46 (0)46 10 12 30
E-mail	info@genovis.com

### 1.4. Emergency telephone number

Acute cases: Call 112, request poison information.

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Flam. Liq. 3, H226  
(See section 16)

### 2.2. Label elements

Hazard pictogram



Signal word	Warning
Hazard statement	
H226	Flammable liquid and vapour
Precautionary statements	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P403+P235	Store in a well-ventilated place. Keep cool
P501	Dispose of contents and container to authorised waste disposal facility

### 2.3. Other hazards

This product does not contain any substances that are assessed to be a PBT or a vPvB

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

Note that the table shows known hazards of the ingredients in pure form. These hazards are reduced or eliminated when mixed or diluted, see Section 16d.

Constituent	Classification	Concentration
<b>ETHYL ALCOHOL</b>		
CAS No: 64-17-5 EC No: 200-578-6 Index No: 603-002-00-5 REACH: 01-2119457610-43	Flam. Liq. 2; H225	10 - 20 %
<b>FucosEXO™</b>		
		1 - 10 %

Explanations to the classification and labelling of the ingredients are given in Section 16e. Official abbreviations are printed in normal font. Text in italics are specifications and/or complements used in the calculation of the classification of this mixture, see Section 16b.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### Generally

In case of concern, or if symptoms occur, call a doctor/physician.

#### Upon breathing in

Fresh air and rest. If symptoms persist seek medical advice.

#### Upon eye contact

Rinse the eye for several minutes with lukewarm water. If irritation persists call a doctor/ophthalmologist.

#### Upon skin contact

Normal washing of the skin is considered sufficient; If nevertheless symptoms do occur, contact a physician.

#### Upon ingestion

Rinse nose, mouth and throat with water.

If symptoms persist contact a doctor.

### 4.2. Most important symptoms and effects, both acute and delayed

#### Upon breathing in

Breathing may cause headache, vertigo, weakness and sickness.

#### Upon eye contact

Transient eye irritation.

### 4.3. Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

## SECTION 5: Fire-fighting measures

### 5.1. Extinguishing media

#### Recommended extinguishing agents

Extinguish with water mist, powder, carbon dioxide or alcoholresistant foam.

#### Unsuitable extinguishing agents

May not be extinguished with water dispersed under high pressure.

### 5.2. Special hazards arising from the substance or mixture

Flammable liquid.

Emits flammable vapours which may form an explosive mixture with air.

Produces fumes containing harmful gases (carbon monoxide and carbon dioxide) when burning, and, in case of incomplete combustion, aldehydes and other toxic, harmful, irritant or environmentally harmful substances.

### 5.3. Advice for fire-fighters

- Protective measures should be taken regarding other material at the site of the fire.
- In case of fire use proper breathing apparatus.
- Wear full protective clothing.
- Cool closed containers that were exposed to fire with water.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

- Note the risk of ignition.
- Switch off power at the main switch. Do not use the power switch in the room where the spillage has occurred.
- Switch off equipment which has an exposed flame, glows, or has a heat source of some other kind.
- Note, risk for formation of sparks due to static electricity. Do not remove clothing in a room where spillage has occurred.
- Use recommended safety equipment, see section 8.
- Do not inhale vapours and avoid contact with skin, eyes and clothes when cleaning up the spillage.
- Ensure good ventilation.
- Evacuate the accident area and call an ambulance, if relevant.
- Keep unauthorized and unprotected people at a safe distance.
- Use breathing apparatus when oxygen levels are low or unknown.

### 6.2. Environmental precautions

- Avoid release to drains, soil or watercourses.
- Prevent from entering sewers, basements and pits, or any place where gas accumulation could be dangerous.
- Notify rescue services for larger spillage.

### 6.3. Methods and material for containment and cleaning up

- Do NOT use tools emitting sparks when cleaning.
- Absorb the liquid with an inert absorbent, vermiculite, for example. Collect the material for disposal at a waste disposal facility.
- Residues left behind after cleaning shall be treated as hazardous waste. For further information, contact the local authority sanitation works. Present this safety data sheet.
- Ensure good ventilation after sanitation.

### 6.4. Reference to other sections

- See section 8 and 13 for personal protection equipment and disposal considerations.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- The usual precautions for handling chemicals should be observed.
- Implement appropriate engineering controls if necessary, see Section 8.
- Use recommended safety equipment, see section 8.
- Open fire, hot items, sparks or other ignition sources must not be present in the environment used for handling this product.
- The product may be electrostatically charged. Always ground the containers while transferring the contents from one container to another. Do not use tools that may cause sparks.
- Do not inhale the fumes and avoid exposure to skin, eyes and clothing.
- Store this product separately from food items and keep it out of the reach of children and pets.
- Do not eat, drink or smoke in premises where this product is handled.
- Wash your hands after using the product.
- Remove contaminated clothing.
- Wash contaminated clothing before reuse.
- Handle only in closed equipment. For personal protection e.g. in connection with service, see section 8.

## 7.2. Conditions for safe storage, including any incompatibilities

The product should be stored in a manner which prevents hazards to health and the environment. Avoid exposure to humans and animals and do not discharge the product in a sensitive environment.  
Store separately from food and animal fodder, incl. utensils or surfaces which have been in contact with these things.  
Keep out of reach for children.  
Store tightly, in original packaging.  
Store only in the original package.  
Store in a well-ventilated space.  
Store in a dry and segregated area.  
Store as flammable liquid.  
Do not store in direct sunlight.  
Store at 4 - 8 °C.

## 7.3. Specific end uses

See identified uses in Section 1.2.

# SECTION 8: Exposure controls/personal protection

## 8.1. Control parameters

### 8.1.1. National limit values

#### ETHYL ALCOHOL

United Kingdom (EH40/2005)

Time-weighted-average exposure limit (TWA) 1000 ppm / 1920 mg/m<sup>3</sup>

#### DNEL

#### ETHYL ALCOHOL

	Type of exposure	Route of exposure	Value
Worker	Acute Local	Inhalation	1900 mg/m <sup>3</sup>
Consumer	Chronic Systemic	Inhalation	114 mg/m <sup>3</sup>
Worker	Chronic Systemic	Dermal	343 mg/kg bw/d
Worker	Chronic Systemic	Inhalation	950 mg/m <sup>3</sup>
Consumer	Acute Local	Inhalation	950 mg/m <sup>3</sup>
Consumer	Acute Local	Dermal	950 mg/m <sup>3</sup>
Consumer	Chronic Systemic	Oral	87 mg/kg
Consumer	Chronic Systemic	Dermal	206 mg/kg bw/d

#### PNEC

#### ETHYL ALCOHOL

Environmental protection target	PNEC value
Fresh water	0.96 mg/l
Freshwater sediments	3.6 mg/kg
Marine water	0.79 mg/l
Marine sediments	2.9 mg/kg
Microorganisms in sewage treatment	580 mg/l
Soil (agricultural)	0.63 mg/kg

## 8.2. Exposure controls

The risks posed by the product or its constituents must be considered in the task specific risk assessment, in accordance with current working environment legislation. The risk assessment should be reviewed regularly and updated if necessary.

### 8.2.1. Appropriate engineering controls

The ventilation in the workplace must ensure an air quality that meets the requirements of the current working environment legislation. Local exhaust ventilation should be used to remove airborne contaminants at the source. Emergency showers must be available at the workplace.

### Eye/face protection

Eye protection should be worn if there is any danger of direct exposure or splashing.

### Skin protection

Use suitable protective clothing.

Protective gloves are normally not needed due to the properties of this product, but may be necessary for other reasons, e.g. mechanical risks, temperature conditions or microbiological risks.

The most suitable protective glove should be chosen in consultation with the glove supplier, taking into account the risk assessment for the specific task and the properties of the chemicals involved. Note that the breakthrough time of the material is affected by the duration of the exposure, temperature conditions, abrasion, etcetera.

Based on the chemical properties of the product, the following glove materials are recommended (EN 374):.

- Butyl rubber.
- Neoprene rubber.
- Polymer laminate.

### Respiratory protection

Use appropriate respiratory protective equipment in case of insufficient ventilation.

The most appropriate respiratory protective equipment should be decided in consultation with the appointed safety representative, taking into account the risk assessment for the specific task.

Based on the physical and chemical properties of the product, the following filter type(s) and/or filter combination(s) are recommended:.

- AX.

### 8.2.3. Environmental exposure controls

For limitation of environmental exposure, see Section 12.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

a) Appearance	Form: suspension and liquid. Colour: Solution : Colourless. / Suspension : White.
b) Odour	Sweetish. Alcohol-like. [Slight]
c) Odour threshold	Not indicated
d) pH	Not indicated
e) Melting point/freezing point	Not indicated
f) Initial boiling point and boiling range	80 °C
g) Flash point	50 °C
h) Evaporation rate	Not indicated
i) Flammability (solid, gas)	Not applicable
j) Upper/lower flammability or explosive limits	Not indicated
k) Vapour pressure	Not indicated
l) Vapour density	Not indicated
m) Relative density	Not indicated
n) Solubility	Not indicated
o) Partition coefficient: n-octanol/water	Not applicable
p) Auto-ignition temperature	Not indicated
q) Decomposition temperature	Not indicated
r) Viscosity	Not indicated
s) Explosive properties	Not applicable
t) Oxidising properties	Not applicable

### 9.2. Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Vapour can create explosive mixtures with air.

### 10.2. Chemical stability

The product is stable at normal storage and handling conditions.

### 10.3. Possibility of hazardous reactions

May emit volatile, flammable vapours. Avoid handling close to heat or ignition sources.

### 10.4. Conditions to avoid

Avoid heat, sparks and open flames.

Protect from moisture.

Protect from heat and direct sunlight.

### 10.5. Incompatible materials

Avoid contact with oxidizers.

Avoid contact with acids.

### 10.6. Hazardous decomposition products

None under normal conditions.

## SECTION 11: Toxicological information

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

Information on possible health hazards are based on experience and / or toxicological properties of several components in the product.

#### Acute toxicity

The product is not classified as acutely toxic.

#### ETHYL ALCOHOL

LD50 rabbit 24h: > 20000 mg/kg Dermally

LC50 rat 4h: 124.7 mg/L Inhalation

LD50 rat 24h: 6200 mg/kg Orally

ATE : 1394 mg/kg Orally

#### Skin corrosion/irritation

The product is not classified for skin corrosion/irritation.

#### Serious eye damage/irritation

The product is not classified as irritant to the eyes.

#### Respiratory or skin sensitisation

The product is not classified as sensitising.

#### Germ cell mutagenicity

The product is not classified as mutagen.

#### Carcinogenicity

The product is not classified as carcinogenic.

#### Reproductive toxicity

The product is not classified as a reproductive toxicant.

#### STOT-single exposure

The product is not classified for specific organ toxicity after single exposure.

#### STOT-repeated exposure

The product is not classified for specific organ toxicity after repeated exposure.

#### Aspiration hazard

The product is not classified as being toxic for aspiration.

## SECTION 12: Ecological information

### 12.1. Toxicity

The product is not to be labelled as an environmental hazard. However, it is not inconceivable that large emissions, or repeated small emissions, can have a harmful effect on the environment.

Prevent release on land, in water and drains.

### ETHYL ALCOHOL

LC50 Rainbow trout (*Oncorhynchus mykiss*) 96h: 13480 mg/L

LC50 fathead minnow (*Pimephales promelas*) 96h: 13480 mg/L

LC50 Freshwater water flea (*Daphnia magna*) 48h: 5400 mg/L

EC50 Freshwater water flea (*Daphnia magna*) 48 h: 9268 mg/L

LC50 Ide (*Leuciscus idus*) 48h: 8140 mg/L

EC50 Freshwater water flea (*Daphnia magna*) 24h: 10800 mg/l

IC50 Algae 72h: > 10.9 mg/L

LC50 Common Bleak (*Alburnus alburnus*) 96h: 11000 mg/L

LC50 Rainbow trout (*Oncorhynchus mykiss*) 24h: 11200 mg/L

IC50 Pseudomonas (*Pseudomonas putida*) 16h: 6500 mg/L

### 12.2. Persistence and degradability

The components of the product degrade in the natural environment.

### 12.3. Bioaccumulative potential

This product or its constituents are not expected to accumulate in nature.

### 12.4. Mobility in soil

The product is miscible with water and is therefore variable in soil and water.

### 12.5. Results of PBT and vPvB assessment

This product does not contain any substances that are assessed to be a PBT or a vPvB.

### 12.6. Other adverse effects

No known effects or hazards.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Waste handling of the product

Avoid discharge into sewers.

Discarded products must be disposed of as hazardous waste in accordance with regulations.

Not completely emptied packaging can contain remnants of dangerous substances and should therefore be handled as hazardous waste according to the above. Completely emptied packaging can be recycled.

See directive 2008/98/EC on waste. Observe national or regional provisions on waste management.

## SECTION 14: Transport information

Where not otherwise stated the information applies to all of the UN Model Regulations, i.e. ADR (road), RID (railway), ADN (inland waterways), IMDG (sea), and ICAO (IATA) (air).

### 14.1. UN number

1170

### 14.2. UN proper shipping name

ETHYL ALCOHOL SOLUTION

### 14.3. Transport hazard class(es)

#### Class

3: Flammable liquids

#### Classification code (ADR/RID)

F1: Flammable liquids having a flash-point of or below 60 °C

#### Subsidiary risk (IMDG)

No subsidiary risk according to IMDG

## Labels



### 14.4. Packing group

Packing group III

### 14.5. Environmental hazards

Not applicable

### 14.6. Special precautions for user

#### Tunnel restrictions

Tunnel category: D/E

### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable

### 14.8 Other transport information

Transport category: 3; Maximum total quantity per transport unit: 1000 kgs or litres (ADR 1.1.3.6)

Stowage category A (IMDG)

Emergency Schedule (EmS) for FIRE (IMDG) F-E

Emergency Schedule (EmS) for SPILLAGE (IMDG) S-D

## SECTION 15: Regulatory information

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

Not indicated.

### 15.2. Chemical safety assessment

Assessment and chemical safety report in accordance with 1907/2006 Annex I has not yet been performed.

## SECTION 16: Other information

### 16a. Indication of where changes have been made to the previous version of the safety data sheet

#### Revisions of this document

Earlier versions

2021-07-08 Changes in section(s) 3.

### 16b. Legend to abbreviations and acronyms used in the safety data sheet

#### Full texts for Hazard Class and Category Code mentioned in section 3

Flam. Liq. 2 Flammable liquids, Hazard Category 2 - Flam. Liq. 2, H225 - Highly flammable liquid and vapour

Flam. Liq. 3 Flammable liquids, Hazard Category 3 - Flam. Liq. 3, H226 - Flammable liquid and vapour

#### Explanations of the abbreviations in Section 14

ADR European Agreement concerning the International Transport of Dangerous Goods by Road

RID Regulations concerning the International Transport of Dangerous Goods by Rail

IMDG International Maritime Dangerous Goods Code

ICAO International Civil Aviation Organization (ICAO, 999 University Street, Montreal, Quebec H3C 5H7, Canada)

IATA The International Air Transport Association

Tunnel restriction code: D/E; Transport by bulk or via tank: Passage forbidden through tunnels of category D and E, Other transportation means: Passage forbidden through tunnels of category E

Transport category: 3; Maximum total quantity per transport unit: 1000 kgs or litres (ADR 1.1.3.6)



## 16c. Key literature references and sources for data

### Sources for data

Primary data for the calculation of the hazards has preferentially been taken from the official European classification list, 1272/2008 Annex I , as updated to 2021-08-24.

Where such data was not available, alternative documentation used to establish the official classification was used, e.g. IUCLID (International Uniform Chemical Information Database). As a second alternative, information was used from reputable international chemical industries, and as a third alternative other available information was used, e.g. material safety data sheets from other suppliers or information from non-profit associations, where reliability of the source was assessed by expert opinion. If, in spite of this, reliable information could not be sourced, the hazards were assessed by expert opinions based on the known hazards of similar substances, and according to the principles in 1907/2006 and 1272/2008.

### Full texts for Regulations mentioned in this Safety Data Sheet

- 1907/2006 REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC
- 2015/830 COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
- 1272/2008 REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
- 2008/98/EC DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on waste and repealing certain Directives

## 16d. Methods of evaluating information referred to in 1272/2008 Article 9 which was used for the purpose of classification

Hazard calculation for this mixture has been performed as a cumulative assessment with the aid of expert assessments in accordance with 1272/2008 Annex I , where all available information which may be significant to establishing the hazards of the mixture was assessed together, and in accordance with 1907/2006 Annex XI .

## 16e. List of relevant hazard statements and/or precautionary statements

### Full texts for hazard statements mentioned in section 3

H225 Highly flammable liquid and vapour

## 16f. Advice on any training appropriate for workers to ensure protection of human health and the environment

### Warning for misuse

This product can cause harm if used improperly. The manufacturer, the distributor or the supplier are not responsible for adverse effects if the product is not handled in accordance with its intended use.

### Other relevant information

Not indicated

### Editorial information



This material safety data sheet has been prepared and checked by KemRisk®, KemRisk Sweden AB, Platensgatan 8, SE-582 20 Linköping, Sweden, [www.kemrisk.se](http://www.kemrisk.se)

# SAFETY DATA SHEET

In accordance with 1907/2006 annex II 2015/830 and 1272/2008  
(All references to EU regulations and directives are abbreviated into only the numeric term)

Amendment date 2021-08-24

Replaces SDS issued 2021-06-16

Revision date 2021-05-14

Version number 4.2



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

### 1.1. Product identifier

Trade name	CaptureSelect Fc
Article number	CS-FC1-005, CS-FC1-100, CS-FC1-1000, A2-FR2-005, A2-FR2-010, A2-FR2-025, A2-FR2-100, A2-FR2-1000, A2-AFK-005, A2-AFK-025, A2-AFK-100, A2-AFK-1000, A2-FZ2-005, A2-FZ2-025, L1-T01-200, L1-T02-200, CS-FC3-005, T1-TGF-010, T1-TGA-010

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

Identified uses	Antibody purification For Research use only
-----------------	--

### 1.3. Details of the supplier of the safety data sheet

Company	Genovis AB Box 790 22007 LUND Sweden
Telephone	+46 (0)46 10 12 30
E-mail	info@genovis.com

### 1.4. Emergency telephone number

Acute cases: Call 112, request poison information.

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Flam. Liq. 3, H226  
(See section 16)

### 2.2. Label elements

Hazard pictogram



Signal word	Warning
Hazard statement	
H226	Flammable liquid and vapour
Precautionary statements	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P233	Keep container tightly closed
P403+P235	Store in a well-ventilated place. Keep cool

### 2.3. Other hazards

This product does not contain any substances that are assessed to be a PBT or a vPvB

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

Note that the table shows known hazards of the ingredients in pure form. These hazards are reduced or eliminated when mixed or diluted, see Section 16d.

Constituent	Classification	Concentration
<b>ETHANOL</b>		
CAS No: 64-17-5 EC No: 200-578-6 Index No: 603-002-00-5 REACH: 01-2119457610-43	Flam. Liq. 2; H225	10 - 20 %
<b>CaptureSelect® Affinity Ligand</b>		
		1 - 10 %

Explanations to the classification and labelling of the ingredients are given in Section 16e. Official abbreviations are printed in normal font. Text in italics are specifications and/or complements used in the calculation of the classification of this mixture, see Section 16b.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### Generally

In case of concern, or if symptoms occur, call a doctor/physician.

#### Upon breathing in

Fresh air and rest. If symptoms persist seek medical advice.

#### Upon eye contact

Remove contact lenses immediately if possible.

Rinse the eye for several minutes with lukewarm water. If irritation persists call a doctor/ophthalmologist.

#### Upon skin contact

Remove contaminated clothing.

Wash the skin with soap and water.

If symptoms occur, contact a physician.

#### Upon ingestion

Rinse mouth out thoroughly first with water, then SPIT OUT the rinse water. Drink at least half a litre of water and seek medical advice. DO NOT INDUCE VOMITING.

### 4.2. Most important symptoms and effects, both acute and delayed

#### Upon eye contact

Eye irritation may occur.

#### Upon ingestion

Symptoms similar as alcohol ingestion.

### 4.3. Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

Upon contact with a doctor, make sure to have the label or this safety data sheet with you.

## SECTION 5: Fire-fighting measures

### 5.1. Extinguishing media

#### Recommended extinguishing agents

Extinguish with water mist, powder, carbon dioxide or alcoholresistant foam.

#### Unsuitable extinguishing agents

May not be extinguished with water dispersed under high pressure.

### 5.2. Special hazards arising from the substance or mixture

Produces fumes containing harmful gases (carbon monoxide and carbon dioxide) when burning, and, in case of incomplete combustion, aldehydes and other toxic, harmful, irritant or environmentally harmful substances.

Emits flammable vapours which may form an explosive mixture with air.

### 5.3. Advice for fire-fighters

- Protective measures should be taken regarding other material at the site of the fire.
- In case of fire use proper breathing apparatus.
- Wear full protective clothing.
- Cool closed containers that were exposed to fire with water.
- Vapors are heavier than air and may spread along floors.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

- Do not inhale vapours and avoid contact with skin, eyes and clothes when cleaning up the spillage.
- Note the risk of ignition.
- Switch off equipment which has an exposed flame, glows, or has a heat source of some other kind.
- Switch off power at the main switch. Do not use the power switch in the room where the spillage has occurred.
- Note, risk for formation of sparks due to static electricity. Do not remove clothing in a room where spillage has occurred.
- The area should be ventilated with fresh air.
- Ensure good ventilation.
- Evacuate the accident area and call an ambulance, if relevant.
- Keep unauthorized and unprotected people at a safe distance.
- Use recommended safety equipment, see section 8.
- Use breathing apparatus when oxygen levels are low or unknown.

### 6.2. Environmental precautions

- Avoid release to drains, soil or watercourses.
- Prevent from entering sewers, basements and pits, or any place where gas accumulation could be dangerous.
- Notify rescue services for larger spillage.

### 6.3. Methods and material for containment and cleaning up

- Absorb the liquid with an inert absorbent, vermiculite, for example. Collect the material for disposal at a waste disposal facility.
- Do NOT use tools emitting sparks when cleaning.
- Residues left behind after cleaning shall be treated as hazardous waste. For further information, contact the local authority sanitation works. Present this safety data sheet.
- Ensure good ventilation after sanitation.

### 6.4. Reference to other sections

- See section 8 and 13 for personal protection equipment and disposal considerations.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Store this product separately from food items and keep it out of the reach of children and pets.
- Open fire, hot items, sparks or other ignition sources must not be present in the environment used for handling this product.
- The product may be electrostatically charged. Always ground the containers while transferring the contents from one container to another. Do not use tools that may cause sparks.
- Do not inhale the fumes and avoid exposure to skin, eyes and clothing.
- Local exhaust ventilation may be necessary.
- Work in order to avoid spillage. If spillage does occur, address it immediately in accordance with the directions specified in Section 6 of this safety data sheet.
- Do not eat, drink or smoke in premises where this product is handled.
- Wash your hands after using the product.
- Remove contaminated clothing.
- Wash contaminated clothing before reuse.
- Keep away from incompatible products.
- Use recommended safety equipment, see section 8.

## 7.2. Conditions for safe storage, including any incompatibilities

This product should be stored well out of reach of young children and kept safely apart from products intended for consumption.

The product should be stored in a manner which prevents hazards to health and the environment. Avoid exposure to humans and animals and do not discharge the product in a sensitive environment.

Store in a well-ventilated space.

Always use sealed and visibly labeled packages.

Do not store close to incompatible materials (see section 10.5).

Store as flammable liquid.

Store in dry and cool area.

## 7.3. Specific end uses

See identified uses in Section 1.2.

# SECTION 8: Exposure controls/personal protection

## 8.1. Control parameters

### 8.1.1. National limit values

#### ETHANOL

United Kingdom (EH40/2005)

Time-weighted-average exposure limit (TWA) 1000 ppm / 1920 mg/m<sup>3</sup>

#### DNEL

#### ETHANOL

	Type of exposure	Route of exposure	Value
Worker	Acute Local	Inhalation	1900 mg/m <sup>3</sup>
Consumer	Chronic Systemic	Inhalation	114 mg/m <sup>3</sup>
Worker	Chronic Systemic	Dermal	343 mg/kg bw/d
Worker	Chronic Systemic	Inhalation	950 mg/m <sup>3</sup>
Consumer	Acute Local	Inhalation	950 mg/m <sup>3</sup>
Consumer	Acute Local	Dermal	950 mg/m <sup>3</sup>
Consumer	Chronic Systemic	Oral	87 mg/kg
Consumer	Chronic Systemic	Dermal	206 mg/kg bw/d

#### PNEC

#### ETHANOL

Environmental protection target	PNEC value
Fresh water	0.96 mg/l
Freshwater sediments	3.6 mg/kg
Marine water	0.79 mg/l
Marine sediments	2.9 mg/kg
Microorganisms in sewage treatment	580 mg/l
Soil (agricultural)	0.63 mg/kg

## 8.2. Exposure controls

To prevent occupational risks the health hazards for this product or any of the ingredients should be taken into account (see sections 2, 3 and 11), according to EU Directive 89/391 and 98/24 and national jurisdiction for occupational risks.

Wash hands thoroughly after handling and before food intake or smoking.

### 8.2.1. Appropriate engineering controls

Handle in premises with good ventilation.

Use local exhaust ventilation.

### Eye/face protection

Eye protection should be worn if there is any danger of direct exposure or splashing.

### Skin protection

Use protective gloves fulfilling the standard EN374 if there is a risk of direct contact.

Use suitable protective clothing.

### Respiratory protection

Use appropriate respiratory protective equipment in case of insufficient ventilation.

Gas filter AX is recommended.

### 8.2.3. Environmental exposure controls

Work with the product should take place in such a way that the product does not get into drains, waterways, soil and air.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

a) Appearance	Form: liquid. Colour: Solution : Colourless. / Suspension : White.
b) Odour	like alcohol
c) Odour threshold	Not indicated
d) pH	Not indicated
e) Melting point/freezing point	Not indicated
f) Initial boiling point and boiling range	80 °C
g) Flash point	>23 °C
h) Evaporation rate	Not indicated
i) Flammability (solid, gas)	Not applicable
j) Upper/lower flammability or explosive limits	Not indicated
k) Vapour pressure	Not indicated
l) Vapour density	Not indicated
m) Relative density	Not indicated
n) Solubility	Not indicated
o) Partition coefficient: n-octanol/water	Not applicable
p) Auto-ignition temperature	Not indicated
q) Decomposition temperature	Not indicated
r) Viscosity	Not indicated
s) Explosive properties	Not applicable
t) Oxidising properties	Not applicable

### 9.2. Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Vapour can create explosive mixtures with air.

### 10.2. Chemical stability

The product is stable at normal storage and handling conditions.

### 10.3. Possibility of hazardous reactions

May emit volatile, flammable vapours. Avoid handling close to heat or ignition sources.

### 10.4. Conditions to avoid

Avoid heat, sparks and open flames.

### 10.5. Incompatible materials

Avoid contact with oxidizers.

### 10.6. Hazardous decomposition products

None under normal conditions.

## SECTION 11: Toxicological information

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

Information on possible health hazards are based on experience and / or toxicological properties of several components in the product.

#### Acute toxicity

The product is not classified as acutely toxic.

#### ETHANOL

LD50 rabbit 24h: > 20000 mg/kg Dermally

LC50 rat 4h: 124.7 mg/L Inhalation

LD50 rat 24h: 6200 mg/kg Orally

ATE : 1394 mg/kg Orally

#### Skin corrosion/irritation

The mixture is judged as a whole and is classified to be neither corrosive nor irritant to skin. Mild irritation may occur on prolonged or repeated exposure.

#### Serious eye damage/irritation

The mixture is judged as a whole and is classified to be neither corrosive nor irritant to the eyes. Mild irritation may occur on prolonged or repeated exposure.

#### Respiratory or skin sensitisation

The product is not classified as sensitising.

#### Germ cell mutagenicity

The product is not classified as mutagen.

#### Carcinogenicity

The product is not classified as carcinogenic.

#### Reproductive toxicity

The product is not classified as a reproductive toxicant.

#### STOT-single exposure

No known hazards for occasional exposure.

#### STOT-repeated exposure

No known hazards for repeated exposure.

#### Aspiration hazard

The product is not classified as being toxic for aspiration.

## SECTION 12: Ecological information

### 12.1. Toxicity

The product is not to be labelled as a environmental hazard. However, it is not inconceivable that large emissions, or repeated small emissions, can have a harmful effect on the environment.

Prevent release on land, in water and drains.

#### ETHANOL

LC50 Rainbow trout (*Oncorhynchus mykiss*) 96h: 13480 mg/L

LC50 fathead minnow (*Pimephales promelas*) 96h: 13480 mg/L

LC50 Freshwater water flea (*Daphnia magna*) 48h: 5400 mg/L

EC50 Freshwater water flea (*Daphnia magna*) 48 h: 9268 mg/L

LC50 Ide (*Leuciscus idus*) 48h: 8140 mg/L

EC50 Freshwater water flea (*Daphnia magna*) 24h: 10800 mg/l

IC50 Algae 72h: > 10.9 mg/L

LC50 Common Bleak (*Alburnus alburnus*) 96h: 11000 mg/L

LC50 Rainbow trout (*Oncorhynchus mykiss*) 24h: 11200 mg/L

IC50 Pseudomonas (*Pseudomonas putida*) 16h: 6500 mg/L

### 12.2. Persistence and degradability

The product degrades in the natural environment.

### 12.3. Bioaccumulative potential

This product or its ingredients do probably not accumulate in nature.

#### 12.4. Mobility in soil

The product is miscible with water and is therefore variable in soil and water.

#### 12.5. Results of PBT and vPvB assessment

This product does not contain any substances that are assessed to be a PBT or a vPvB.

#### 12.6. Other adverse effects

Not indicated.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### Waste handling of the product

Discarded products must be disposed of as hazardous waste in accordance with regulations.

See directive 2008/98/EC on waste. Observe national or regional provisions on waste management.

Not completely emptied packaging can contain remnants of dangerous substances and should therefore be handled as hazardous waste according to the above. Completely emptied packaging can be recycled.

Avoid discharge into sewers.

Observe local regulations.

### SECTION 14: Transport information

Where not otherwise stated the information applies to all of the UN Model Regulations, i.e. ADR (road), RID (railway), ADN (inland waterways), IMDG (sea), and ICAO (IATA) (air).

#### 14.1. UN number

1170

#### 14.2. UN proper shipping name

ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

#### 14.3. Transport hazard class(es)

##### Class

3: Flammable liquids

##### Classification code (ADR/RID)

F1: Flammable liquids having a flash-point of or below 60 °C

##### Subsidiary risk (IMDG)

No subsidiary risk according to IMDG

##### Labels



#### 14.4. Packing group

Packing group III

#### 14.5. Environmental hazards

Not applicable

#### 14.6. Special precautions for user

##### Tunnel restrictions

Tunnel category: D/E

#### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable

#### 14.8 Other transport information

Transport category: 3; Maximum total quantity per transport unit: 1000 kgs or litres (ADR 1.1.3.6)

Stowage category A (IMDG)

Emergency Schedule (EmS) for FIRE (IMDG) F-E

Emergency Schedule (EmS) for SPILLAGE (IMDG) S-D

Special provision 144:

An aqueous solution containing not more than 24% alcohol by volume is not subject to the requirements of ADR.



## SECTION 15: Regulatory information

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

Not indicated.

### 15.2. Chemical safety assessment

Assessment and chemical safety report in accordance with 1907/2006 Annex I has not yet been performed.

## SECTION 16: Other information

### 16a. Indication of where changes have been made to the previous version of the safety data sheet

#### Revisions of this document

Earlier versions

2021-06-16 Changes in section(s) 3.

### 16b. Legend to abbreviations and acronyms used in the safety data sheet

#### Full texts for Hazard Class and Category Code mentioned in section 3

Flam. Liq. 2 Flammable liquids, Hazard Category 2 - Flam. Liq. 2, H225 - Highly flammable liquid and vapour

Flam. Liq. 3 Flammable liquids, Hazard Category 3 - Flam. Liq. 3, H226 - Flammable liquid and vapour

#### Explanations of the abbreviations in Section 14

ADR European Agreement concerning the International Transport of Dangerous Goods by Road

RID Regulations concerning the International Transport of Dangerous Goods by Rail

IMDG International Maritime Dangerous Goods Code

ICAO International Civil Aviation Organization (ICAO, 999 University Street, Montreal, Quebec H3C 5H7, Canada)

IATA The International Air Transport Association

Tunnel restriction code: D/E; Transport by bulk or via tank: Passage forbidden through tunnels of category D and E, Other transportation means: Passage forbidden through tunnels of category E

Transport category: 3; Maximum total quantity per transport unit: 1000 kgs or litres (ADR 1.1.3.6)

### 16c. Key literature references and sources for data

#### Sources for data

Primary data for the calculation of the hazards has preferentially been taken from the official European classification list, 1272/2008 Annex I, as updated to 2021-08-24.

Where such data was not available, alternative documentation used to establish the official classification was used, e.g. IUCLID (International Uniform Chemical Information Database). As a second alternative, information was used from reputable international chemical industries, and as a third alternative other available information was used, e.g. material safety data sheets from other suppliers or information from non-profit associations, where reliability of the source was assessed by expert opinion. If, in spite of this, reliable information could not be sourced, the hazards were assessed by expert opinions based on the known hazards of similar substances, and according to the principles in 1907/2006 and 1272/2008.

#### Full texts for Regulations mentioned in this Safety Data Sheet

1907/2006 REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

2015/830 COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

1272/2008 REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

2008/98/EC DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on waste and repealing certain Directives

### 16d. Methods of evaluating information referred to in 1272/2008 Article 9 which was used for the purpose of classification

Hazard calculation for this mixture has been performed as a cumulative assessment with the aid of expert assessments in accordance with 1272/2008 Annex I, where all available information which may be significant to establishing the hazards of the mixture was assessed together, and in accordance with 1907/2006 Annex XI.

**16e. List of relevant hazard statements and/or precautionary statements**

**Full texts for hazard statements mentioned in section 3**

H225 Highly flammable liquid and vapour

**16f. Advice on any training appropriate for workers to ensure protection of human health and the environment**

**Warning for misuse**

This product can cause harm if used improperly. The manufacturer, the distributor or the supplier are not responsible for adverse effects if the product is not handled in accordance with its intended use.

**Other relevant information**

Not indicated

**Editorial information**



This material safety data sheet has been prepared and checked by KemRisk®, KemRisk Sweden AB, Platensgatan 8, SE-582 20 Linköping, Sweden, [www.kemrisk.se](http://www.kemrisk.se)

# SAFETY DATA SHEET

In accordance with 1907/2006 annex II and 1272/2008  
(All references to EU regulations and directives are abbreviated into only the numeric term)

Amendment date 2022-01-18  
Replaces SDS issued 2022-01-12  
Revision date 2022-01-12  
Version number 2.1



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

### 1.1. Product identifier

Trade name	Oxazoline glycoform
Article number	Ox-G2S2, Ox-G0, Ox-G1, Ox-G2, Ox-Az

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

Identified uses	Antibody labeling
-----------------	-------------------

### 1.3. Details of the supplier of the safety data sheet

Company	Genovis AB Box 790 22007 LUND Sweden
Telephone	+46 (0)46 10 12 30
E-mail	info@genovis.com

### 1.4. Emergency telephone number

Phone number for emergencies: 999 or 112. The numbers are available 24/7.

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Skin Irrit. 2, H315  
Eye Irrit. 2, H319  
(See section 16)

### 2.2. Label elements

Hazard pictogram



Signal word	Warning
Hazard statements	
H315	Causes skin irritation
H319	Causes serious eye irritation
Precautionary statements	
P264	Wash hands thoroughly after handling
P280	Wear protective gloves and eye protection
P332+P313	If skin irritation occurs: Get medical advice/attention
P337+P313	If eye irritation persists: Get medical advice/attention
P362+P364	Take off contaminated clothing and wash it before reuse

### 2.3. Other hazards

This product does not contain any substances that are assessed to be a PBT or a vPvB

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

Note that the table shows known hazards of the ingredients in pure form. These hazards are reduced or eliminated when mixed or diluted, see Section 16d.

Constituent	Classification	Concentration
<b>OXAZOLINE GLYCOFORM</b>		
		80 - 100 %
<b>SODIUM HYDROXIDE</b>		
CAS No: 1310-73-2 EC No: 215-185-5 Index No: 011-002-00-6	Skin Corr. 1A; H314	<2 %

Explanations to the classification and labelling of the ingredients are given in Section 16e. Official abbreviations are printed in normal font. Text in italics are specifications and/or complements used in the calculation of the classification of this mixture, see Section 16b.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### Generally

In case of concern, or if symptoms occur, call a doctor/physician.

#### Upon breathing in

Fresh air and rest. If symptoms persist seek medical advice.

#### Upon eye contact

Remove contact lenses immediately if possible.

Rinse the eye for several minutes with lukewarm water. If irritation persists call a doctor/ophthalmologist.

#### Upon skin contact

Remove contaminated clothing.

Wash the skin with soap and water.

If symptoms occur, contact a physician.

#### Upon ingestion

Rinse mouth out thoroughly first with water, then SPIT OUT the rinse water. Drink at least half a litre of water and seek medical advice. DO NOT INDUCE VOMITING.

### 4.2. Most important symptoms and effects, both acute and delayed

#### Upon eye contact

Irritation.

#### Upon skin contact

Irritation.

#### Upon ingestion

May cause irritation of mucous membranes, nausea and vomiting.

### 4.3. Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

Upon contact with a doctor, make sure to have the label or this safety data sheet with you.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Extinguish with water mist, powder, carbon dioxide or alcoholresistant foam.

### 5.2. Special hazards arising from the substance or mixture

Gases detrimental to health can be spread in case of fire.

### 5.3. Advice for firefighters

Protective measures should be taken regarding other material at the site of the fire.

In case of fire use proper breathing apparatus.

Wear full protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Avoid inhalation and exposure to skin and eyes.

Keep unauthorized and unprotected people at a safe distance.

Use recommended safety equipment, see section 8.

Ensure good ventilation.

### 6.2. Environmental precautions

Avoid release to drains, soil or watercourses.

### 6.3. Methods and material for containment and cleaning up

Collect the material and send it for disposal.

### 6.4. Reference to other sections

See section 8 and 13 for personal protection equipment and disposal considerations.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Store this product separately from food items and keep it out of the reach of children and pets.

Avoid contact with skin and eyes.

Work in order to avoid spillage. If spillage does occur, address it immediately in accordance with the directions specified in Section 6 of this safety data sheet.

Do not eat, drink or smoke in premises where this product is handled.

Wash your hands after using the product.

Remove contaminated clothing.

Wash contaminated clothing before reuse.

Keep away from incompatible products.

Use recommended safety equipment, see section 8.

Implement appropriate engineering controls if necessary, see Section 8.

### 7.2. Conditions for safe storage, including any incompatibilities

This product should be stored well out of reach of young children and kept safely apart from products intended for consumption.

The product should be stored in a manner which prevents hazards to health and the environment. Avoid exposure to humans and animals and do not discharge the product in a sensitive environment.

Store tightly, in original packaging.

Do not store close to incompatible materials (see section 10.5).

### 7.3. Specific end use(s)

See identified uses in Section 1.2.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1. National limit values

##### SODIUM HYDROXIDE

United Kingdom (EH40/2005)

Short term exposure limit (STEL) 2 mg/m<sup>3</sup>

#### DNEL

No data available.

#### PNEC

No data available.

### 8.2. Exposure controls

The risks posed by the product or its constituents must be considered in the task specific risk assessment, in accordance with current working environment legislation. The risk assessment should be reviewed regularly and updated if necessary.

#### 8.2.1. Appropriate engineering controls

The ventilation in the workplace must ensure an air quality that meets the requirements of the current working environment legislation. Local exhaust ventilation should be used to remove airborne contaminants at the source.

Eye-rinsing facilities shall be available at the workplace.

#### Eye/face protection

Use protective glasses with tight seals according to standard EN166.

#### Skin protection

Use suitable protective clothing.

Use protective gloves fulfilling the standard EN374 if there is a risk of direct contact.

During continuous contact use gloves with a minimum breakthrough time of at least 240 minutes, preferably over 480 minutes.

The most suitable protective glove should be chosen in consultation with the glove supplier, taking into account the risk assessment for the specific task and the properties of the chemicals involved. Note that the breakthrough time of the material is affected by the duration of the exposure, temperature conditions, abrasion, etcetera.

Based on the chemical properties of the product, the following glove materials are recommended (EN 374):.

– Nitrile rubber.

#### Respiratory protection

Use appropriate respiratory protective equipment in case of insufficient ventilation.

Respiratory protective equipment is not normally required when working with this product, given that adequate ventilation is provided.

The most appropriate respiratory protective equipment should be decided in consultation with the appointed safety representative, taking into account the risk assessment for the specific task.

Based on the physical and chemical properties of the product, the following filter type(s) and/or filter combination(s) are recommended:.

– P2/P3.

#### 8.2.3. Environmental exposure controls

Work with the product should take place in such a way that the product does not get into drains, waterways, soil and air.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

(a) Physical state	solid Form: lyophilised powder
(b) Colour	Not indicated
(c) Odour	Not indicated
(d) Melting point/freezing point	Not indicated
(e) Boiling point or initial boiling point and boiling range	Not indicated
(f) Flammability	Not indicated
(g) Lower and upper explosion limit	Not indicated
(h) Flash point	Not indicated
(i) Auto-ignition temperature	Not indicated
(j) Decomposition temperature	Not indicated
(k) pH	Not indicated
(l) Kinematic viscosity	Not indicated
(m) Solubility	Not indicated
(n) Partition coefficient n-octanol/water (log value)	Not indicated
(o) Vapour pressure	Not indicated
(p) Density and/or relative density	Not indicated
(q) Relative vapour density	Not indicated
(r) Particle characteristics	Not indicated

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

Not indicated

#### 9.2.2. Other safety characteristics

Not indicated

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product contains no substances which can lead to hazardous reactions at normal use.

### 10.2. Chemical stability

The product is stable at normal storage and handling conditions.

### 10.3. Possibility of hazardous reactions

No hazardous reactions known.

### 10.4. Conditions to avoid

No data available.

### 10.5. Incompatible materials

None known.

### 10.6. Hazardous decomposition products

None known.

## SECTION 11: Toxicological information

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

Not indicated.

#### Acute toxicity

The product is not classified as acutely toxic.

#### Skin corrosion/irritation

May cause skin irritation.

#### Serious eye damage/irritation

Eye contact may cause burning pain or irritation.

#### Respiratory or skin sensitisation

Not indicated.

**Germ cell mutagenicity**

The product is not classified as mutagen.

**Carcinogenicity**

The product is not classified as carcinogenic.

**Reproductive toxicity**

The product is not classified as a reproductive toxicant.

**STOT-single exposure**

The product is not classified for specific organ toxicity after single exposure.

**STOT-repeated exposure**

The product is not classified for specific organ toxicity after repeated exposure.

**Aspiration hazard**

The product is not classified as being toxic for aspiration.

**11.2. Information on other hazards****11.2.1. Endocrine disrupting properties**

No information is available.

**11.2.2. Other information**

Not indicated.

## SECTION 12: Ecological information

**12.1. Toxicity**

Prevent release on land, in water and drains.

**SODIUM HYDROXIDE**

LC50 Rainbow trout (*Oncorhynchus mykiss*) 96h: 45.4 mg/L

**12.2. Persistence and degradability**

There is no information regarding persistence or degradability.

**12.3. Bioaccumulative potential**

There is no information regarding bioaccumulation.

**12.4. Mobility in soil**

Information about mobility in nature is not available.

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

This product does not contain any substances that are assessed to be a PBT or a vPvB.

**12.6. Endocrine disrupting properties**

No information is available.

**12.7. Other adverse effects**

Data lacking.

## SECTION 13: Disposal considerations

**13.1. Waste treatment methods****Waste handling of the product**

The product is not classified as hazardous waste.

Avoid discharge into sewers.

Discard empty containers for recycling when possible and practical.

See directive 2008/98/EC on waste. Observe national or regional provisions on waste management.

## SECTION 14: Transport information

Where not otherwise stated the information applies to all of the UN Model Regulations, i.e. ADR (road), RID (railway), ADN (inland waterways), IMDG (sea), and ICAO (IATA) (air).

**14.1. UN number or ID number**

Not classified as dangerous goods

**14.2. UN proper shipping name**

Not applicable



#### 14.3. Transport hazard class(es)

Not applicable

#### 14.4. Packing group

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

#### 14.8 Other transport information

Not applicable

### SECTION 15: Regulatory information

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

Not indicated.

#### 15.2. Chemical safety assessment

Assessment and chemical safety report in accordance with 1907/2006 Annex I has not yet been performed.

### SECTION 16: Other information

#### 16a. Indication of where changes have been made to the previous version of the safety data sheet Revisions of this document

Earlier versions

2022-01-12 Changes in section(s) 1.

#### 16b. Legend to abbreviations and acronyms used in the safety data sheet

##### Full texts for Hazard Class and Category Code mentioned in section 3

Skin Corr. 1A Skin corrosion/irritation, Hazard Category 1A - Skin Corr. 1A, H314 - Causes severe skin burns and eye damage

Skin Irrit. 2 Skin corrosion/irritation, Hazard Category 2 - Skin Irrit. 2, H315 - Causes skin irritation

Eye Irrit. 2 Serious eye damage/eye irritation, Hazard Category 2 - Eye Irrit. 2, H319 - Causes serious eye irritation

##### Explanations of the abbreviations in Section 14

ADR European Agreement concerning the International Transport of Dangerous Goods by Road

RID Regulations concerning the International Transport of Dangerous Goods by Rail

IMDG International Maritime Dangerous Goods Code

ICAO International Civil Aviation Organization (ICAO, 999 University Street, Montreal, Quebec H3C 5H7, Canada)

IATA The International Air Transport Association

#### 16c. Key literature references and sources for data

##### Sources for data

Primary data for the calculation of the hazards has preferentially been taken from the official European classification list, 1272/2008 Annex I, as updated to 2022-01-18.

Where such data was not available, alternative documentation used to establish the official classification was used, e.g. IUCLID (International Uniform Chemical Information Database). As a second alternative, information was used from reputable international chemical industries, and as a third alternative other available information was used, e.g. material safety data sheets from other suppliers or information from non-profit associations, where reliability of the source was assessed by expert opinion. If, in spite of this, reliable information could not be sourced, the hazards were assessed by expert opinions based on the known hazards of similar substances, and according to the principles in 1907/2006 and 1272/2008.

##### Full texts for Regulations mentioned in this Safety Data Sheet

1907/2006 REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

1272/2008 REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

**16d. Methods of evaluating information referred to in 1272/2008 Article 9 which was used for the purpose of classification**

Hazard calculation for this mixture has been performed as a cumulative assessment with the aid of expert assessments in accordance with 1272/2008 Annex I, where all available information which may be significant to establishing the hazards of the mixture was assessed together, and in accordance with 1907/2006 Annex XI.

**16e. List of relevant hazard statements and/or precautionary statements**

**Full texts for hazard statements mentioned in section 3**

H314 Causes severe skin burns and eye damage

**16f. Advice on any training appropriate for workers to ensure protection of human health and the environment**

**Warning for misuse**

Not indicated.

**Other relevant information**

Not indicated

**Editorial information**



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