

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)

Issued 2018-08-29

Replaces issued SDS 2018-08-24

Version number 2.1



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

1.1. Product identifier

Trade name Immobilized GlycINATOR®
Article number A0-GL6-005, A0-GL6-010, A0-GL6-025, A0-GL6-050, A0-GL6-100, A0-GL6-1000, Part of L1-AZ1-025 and L1AZ1-100

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

Identified uses Antibody 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

Flammable liquids (Category 3), H226

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
AGAROSE		
CAS No: 9012-36-6 EC No: 232-731-8		<100 %
ETHYL ALCOHOL		
CAS No: 64-17-5 EC No: 200-578-6 Index No: 603-002-00-5	Flam Liq 2; H225	1 - 10 %
GlycINATOR®		
		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 a respirator mask.

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 masks with fresh air when oxygen content is 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 clothes which have been splattered.

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 Kingdoms (EH40/2005)

Time-weighted-average exposure limit (TWA) 1000 ppm / 1920 mg/m³

DNEL

ETHYL ALCOHOL

	Type of exposure	Route of exposure	Value
Worker	Acute	Inhalation	1900 mg/m ³
	Local		
Consumer	Chronic	Inhalation	114 mg/m ³
	Systemic		
Worker	Chronic Systemic	Dermal	343 mg/kg bw/d
Worker	Chronic Systemic	Inhalation	950 mg/m ³
Consumer	Acute Local	Inhalation	950 mg/m ³
Consumer	Acute Local	Dermal	950 mg/m ³
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 proper protective breathing 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	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 toxicological effects

Not indicated.

Acute toxicity

The product is not classified as acute 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

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*) 24h: 10800 mg/l

IC50 Algae 72h: 0.02 mg/l

12.2. Persistence and degradability

The components of the product degrades in the natural environment.

12.3. Bioaccumulative potential

It is not expected that this product or some of its ingredients will 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

The product releases volatile hydrocarbons to the atmosphere.

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 also national waste 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

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

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

2018-08-24 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

Flam Liq 2 Flammable liquids (Category 2)

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

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 2018-08-29.

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
- EH40/2005 EH40/2005 Workplace exposure limits
- 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)
- 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

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

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