

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 2020-03-28

Version number 1.0



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

1.1. Product identifier

| | |
|----------------|--|
| Trade name | Immobilized FabALACTICA® |
| Article number | A0-AG6-010, A0-AG6-050, A0-AG6-100, A0-AG6-1000, A2-AFK-005, A2-AFK-025, A2-AFK-100, A2-AFK-1000 |

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

| | |
|-----------------|--|
| Identified uses | For laboratory use Antibody fragmentation 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

P233

Keep container tightly closed

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 % |
| ETHANOL | | |
| CAS No: 64-17-5 EC No: 200-578-6 Index No: 603-002-00-5 REACH: 01-2119457610-43 | Flam Liq 2; H225 | 1 - 20 % |
| FabALACTICA™ | | |
| | | 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

For safety reasons, flush eyes with water; If symptoms occur, seek medical advice.

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.

Get medical attention if you feel unwell.

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

Among common extinguishing agents there are none that are overtly unsuitable.

5.2. Special hazards arising from the substance or mixture

Produces thick, black fumes containing hazardous combustion products when burning.

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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Keep away from sources of ignition.

Avoid inhalation and exposure to skin and eyes.

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

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

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

Avoid open fire, hot items, sparks or other ignition sources.

Take precautionary measures against static discharge.

Handle in premises which have modern ventilation standards.

Avoid spillage, inhalation and contact with eyes and skin.

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.

7.2. Conditions for safe storage, including any incompatibilities

Store as flammable liquid.

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.

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/m³

DNEL

ETHANOL

| | Type of exposure | Route of exposure | Value |
|----------|---------------------|-------------------|------------------------|
| Worker | Acute | Inhalation | 1900 mg/m ³ |
| | Local | | |
| Consumer | Chronic Systemic | Inhalation | 114 mg/m ³ |
| Worker | Chronic Systemic | Dermal | 343 mg/kg bw/d |
| Worker | Chronic Systemic | Inhalation | 950 mg/m ³ |
| Consumer | Acute | Inhalation | 950 mg/m ³ |
| | Local | | |
| Consumer | Acute | Dermal | 950 mg/m ³ |
| | Local | | |
| 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

No special measures need to be taken in the event of normal handling or use.

8.2.1. Appropriate engineering controls

Handle in premises which have modern ventilation standards.

Eye-rinsing facilities shall 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 protective gloves fulfilling the standard EN374 if there is a risk of direct contact.

Respiratory protection

Protective breathing equipment should only be required in extreme work-situations. Consult the manufacturer if this is the case.

8.2.3. Environmental exposure controls

For limiting environmental exposure, see section 12.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|----------------|
| a) Appearance | Not indicated |
| b) Odour | Not indicated |
| c) Odour threshold | Not indicated |
| d) pH | Not indicated |
| e) Melting point/freezing point | ≈-9 °C |
| f) Initial boiling point and boiling range | Not indicated |
| g) Flash point | ≈36 °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

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 during normal use.

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 toxicological effects

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

Skin corrosion/irritation

Not classified as irritating to the skin.

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

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

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

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

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. Other adverse effects

No known effects or hazards.

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.

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 or contact the supplier for further information.

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

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

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

This is the first version

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 2020-03-28.

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
- 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 the directions for use.

Other relevant information

Not indicated

Editorial information



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