

# 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 2020-05-29

Version number 1.0



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

### 1.1. Product identifier

|                |                        |
|----------------|------------------------|
| Trade name     | FabRICATOR® MagIC      |
| Article number | A0-FRM-024, A0-FRM-096 |

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

|                 |  |
|-----------------|--|
| Identified uses | Antibody fragmentation reagent<br>For R&D use only |
|-----------------|--|

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

|           |   |
|-----------|---|
| Company   | Genovis AB<br>Box 790<br>22007 LUND<br>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   |

### 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<br>EC No: 200-578-6<br>Index No: 603-002-00-5<br>REACH: 01-2119457610-43 | Flam Liq 2, Eye Irrit 2; H225, H319 | 1 - 20 %      |
| <b>FabRICATOR®</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.

#### Upon skin contact

Remove contaminated clothes.  
Wash the skin with soap and water.  
If symptoms occur, contact a physician.

#### Upon ingestion

Rinse nose, mouth and throat with water.  
DO NOT induce vomiting.  
Contact a doctor.

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

#### Upon breathing in

Irritation may occur.

#### Upon eye contact

Eye irritation may occur.

#### Upon skin contact

Skin irritation may occur.

#### Upon ingestion

Ingestion may cause discomfort or reduced general condition.

### 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 materials intended for the surrounding fire.

### 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.

Cool closed containers that were exposed to fire with water.

## SECTION 6: Accidental release measures

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

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

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

Small spills can be wiped up with a cloth or similar. Then flush the spill site with water. Larger spills should first be covered with sand or earth and then be collected. Collected material should be disposed according to Section 13.

### 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

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

Take precautionary measures against static discharge.

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

Avoid spillage, inhalation and contact with eyes and skin.

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

Wash your hands after using the product.

Handle in premises which have modern ventilation standards.

Remove contaminated clothing.

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.

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 in a ventilated space.

### 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               | Inhalation        | 1900 mg/m <sup>3</sup> |
|          | Local               |                   |                        |
| Consumer | Chronic<br>Systemic | Inhalation        | 114 mg/m <sup>3</sup>  |
| Worker   | Chronic<br>Systemic | Dermal            | 343 mg/kg              |
| Worker   | Chronic<br>Systemic | Inhalation        | 950 mg/m <sup>3</sup>  |
| Consumer | Acute               | Inhalation        | 950 mg/m <sup>3</sup>  |
|          | Local               |                   |                        |
| Consumer | Acute               | Dermal            | 950 mg/m <sup>3</sup>  |
|          | Local               |                   |                        |
| Consumer | Chronic<br>Systemic | Oral              | 87 mg/kg               |
| Consumer | Chronic<br>Systemic | Dermal            | 206 mg/kg              |

#### 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

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

#### 8.2.1. Appropriate engineering controls

Handle in premises which have modern ventilation standards.

#### 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                                   | Form: liquid. Colour: Clear. |
| b) Odour  | Not indicated                |
| c) Odour threshold                              | Not indicated                |
| d) pH   | Not indicated                |
| e) Melting point/freezing point                 | Not indicated                |
| f) Initial boiling point and boiling range      | >35 °C                       |
| 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                                   | Solubility in water: Soluble |
| 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**

Protect from heat and direct sunlight.

### **10.5. Incompatible materials**

Avoid contact with oxidizers.

Avoid contact with alkaline products.

### **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 10h: 38 mg/liter Inhalation

LD50 rat 10h: 2000 ppm Inhalation

LD50 rat 24h: 7060 mg/kg Orally

#### Skin corrosion/irritation

The product is neither corrosive nor irritant.

#### 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

Prevent release on land, in water and drains.

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.

#### ETHANOL

LC50 Rainbow trout (*Oncorhynchus mykiss*) 96h: 1 - 16 g/l

LC50 fathead minnow (*Pimephales promelas*) 96h: > 100 mg/l

LC50 Freshwater water flea (*Daphnia magna*) 48h: 12340 mg/l

EC50 Freshwater water flea (*Daphnia magna*) 48h: 1 - 14221 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.

Observe local regulations or contact the supplier for further information.

Avoid discharge into sewers.

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

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

## 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)

Eye Irrit 2 Irritates eyes (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 (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 2020-05-29.

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

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

H319 Causes serious eye irritation

**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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