

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name: IMCSzyme®
Product number: 04-E1FG-010, -050, -1000
Brand: Integrated Micro-Chromatography Systems, LLC
CAS No. : 9001-45-0

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

Identified uses: Laboratory chemicals, manufacture of substances, and liquid chromatography.

1.3 Details of the supplier of the safety data sheet

Company: Integrated Micro-Chromatography Systems, LLC
110 Centrum Drive
Irmo, SC 29063
Telephone: +1 (888) 560-2073
Website: www.imcstips.com

1.4 Emergency telephone number

Emergency Phone: US, Canada, Puerto Rico, and the U.S. Virgin Islands: +1-800-255-3924
International (collect calls accepted): +1-813-248-0585
Australia: 1-300-954-583
Brazil: 0-800-591-6042
China: 400-120-0751
India: 000-800-100-4086
Mexico: 01-800-099-0731
+1 (888) 560-2073 – IMCS Technical Support

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

The product is not classified according to the Globally Harmonized System (GHS).

2.2 Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Not applicable.

2.3 Information concerning particular hazards for human and environment

The product does not have to be labeled due to the calculation procedure of the “General Classification Guideline for Preparations of the EU” in the latest valid version.

2.4 Classification system

The classification was made according to the latest editions of the EU-lists and expanded upon from company and literature data.

The classification was made according to OSHA 29CFR 1910.1200 and 1910.1030, and is expanded upon from company and/or literature information.

Label elements

GHS label elements:	Void.
Hazard pictograms:	Void.
Signal word:	Void.
Hazard statements:	Void.
Additional information:	Contact with acids may cause release of toxic gases

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization: Mixture

Description: Mixture of the substances listed below with non-hazardous additions.

Trade name: β -glucuronidase

CAS No.: 9001-45-0

EC No.: 232-606-8

Listing of dangerous and non-hazardous components:			
57-50-1	Glycerol		0.5-15%
9001-45-0	β -glucuronidase	Xn R20/21/22	0.01-8%
7732-18-5	Water		77-99%

4. FIRST AID MEASURES

4.1 Description of first aid measures

General information:	No special measures required.
After inhalation:	Supply fresh air; consult doctor in case of complaints.
After skin contact:	Generally the product does not irritate the skin.
After eye contact:	Rinse opened eye for several minutes under running water.
After swallowing:	Induce vomiting and call for medical help.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing agents:

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Special hazards arising from the substance or mixture:

No further relevant information available.

Protective equipment:

No special measures required.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective clothing.

6.2 Environmental precautions

No special measures required.

6.3 Methods and materials for containment and clean up

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

6.4 Reference to other sections

No dangerous substances are released.

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

No special measures required. No special precautions are necessary if used correctly.

Information about protection against explosions and fires: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities

Storage Requirements to be met by storerooms and receptacles:

According to product specification

Information about storage in one common storage facility:

Not required.

Further information about storage conditions:

None.

7.3 Specific end use(s)

No further relevant information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical systems: No further data; see item 7.

8.1 Control parameters

Components with workplace control parameters:

Contains no substances with occupational exposure limit values.

Components with limit values that require monitoring at the workplace:	
56-81-5 glycerol	
PEL	15*, 5** mg/m ³ *total dust **Respirable fraction

Additional information: The lists that were valid during the creation were used as basis.

8.2 Exposure controls

Personal protective equipment: The usual precautionary measures for handling chemicals should be followed.

General protective and hygienic measures

Breathing equipment: Not required.

Protection of hands: Protective gloves.

Material of gloves: Synthetic gloves

Penetration time of glove material: The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Safety glasses

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

Form: Liquid.

Color: Colorless.

Odor: Odorless.

Change in condition

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: Undetermined.

Flash point: Not applicable.

Auto igniting: Product is not self igniting.

Danger of explosion: Product does not present an explosion hazard.

Density:	Not determined
Solubility in/miscibility with Water:	Fully miscible
Solvent content	
Organic solvents:(glycerol):	0.05%- 15.0%
Water:	85-99%
Other information:	No further relevant information available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

Chemical stability:	Stable under normal conditions.
Thermal decomposition/conditions to be avoided:	No decomposition if used according to specifications.
Possibility of hazardous reactions:	No dangerous reactions known.
Conditions to avoid:	No further relevant information available.
Incompatible materials:	No further relevant information available.
Hazardous decomposition products:	No dangerous decomposition products known.

11. TOXICOLOGICAL INFORMATION

11.1 Acute toxicity

Primary irritant effect

on the skin:	No irritant effect.
on the eye:	No irritant effect.
sensitization:	No sensitizing effects known.

Additional toxicological information:	The product is not subject to classification according to the calculation of the General EU Classification Guidelines for Preparations as issued in the latest version. When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
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11.2 Carcinogenicity

IARC (International Agency for Research on Cancer):	None of the ingredients is listed.
NTP (National Toxicology Program):	None of the ingredients is listed.
OSHA-Ca (Occupational Safety & Health Administration):	None of the ingredients is listed.
Target organs:	Not applicable.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic toxicity:	No further relevant information available.
Persistence and degradability:	No further relevant information available.
Bioaccumulative potential:	No further relevant information available.
Mobility in soil:	No further relevant information available.

12.2 Additional ecological information

General notes: Generally not hazardous for water.

Results of PBT and vPvB assessment

PBT:	Not applicable.
vPvB:	Not applicable.

Other adverse effects: No further relevant information available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Recommendation: Soak up and discard.

Uncleaned packagings

Recommendation: Disposal must be made according to official regulations.

14. TRANSPORT INFORMATION

UN-Number

ADR, ADN, IMDG, IATA: Void.

UN proper shipping name

ADR, ADN, IMDG, IATA: Void.

Transport hazard class(es) ADR, ADN, IMDG, IATA

Class: Void

Packing group

ADR, IMDG, IATA: Void

Environmental hazards

Marine pollutant: No

Special precautions for user: Not applicable.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not applicable.

Transport/Additional information:

Not dangerous according to the above specifications.

15. REGULATORY INFORMATION

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

SARA (Superfund Amendments and Reauthorization Act of 1986 - USA)

Section 302/304 (40CFR355.30 / 40CFR355.40):	None of the ingredients is listed.
Section 313 (40CFR372.65):	None of the ingredients is listed.
TSCA (Toxic Substances Control Act):	57-50-1 glycerol 7732-18-5 water

15.2 Carcinogenic categories

EPA (Environmental Protection Agency):	None of the ingredients is listed.
TLV (Threshold Limit Value established by ACGIH):	None of the ingredients is listed.
MAK (German Maximum Workplace Concentration):	None of the ingredients is listed.
NIOSH-Ca (National Institute for Occupational Safety and Health):	None of the ingredients is listed

National regulations

Technical instructions (air)

Class, Share in %	NK, 0.5-15%
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Chemical safety assessment:

A chemical safety assessment has not been carried out.

16. OTHER INFORMATION

The information in this document is based on the present state of knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. IMCS and its affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.

Issuing SDS:	IMCS Technical Support
Contact:	Integrated Micro-Chromatography Systems (LLC) Technical Support 110 Centrum Drive Irmo, SC 29063 +1(888) 560-2073

Abbreviations and acronyms:

- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- ACGIH: American Conference of Governmental Industrial Hygienists
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)