

CERTIFICATE OF ANALYSIS

Glycerine 99.5%

Batch: 4403401

Best Before Date: July 2023

TEST	SPECIFICATION	RESULT
Acidity	Max 0.2 mL 0.1M NaOH	<0.2 mL 0.1M NaOH
Colour (APHA)	Max 10	<10
Esters	Min 8.0 mL0.1M HCL	8.3 mL0.1M HCL
Assay (Glycerol)	99.5-101.0 %	99.9 %
Moisture (content Karl Fischer)	Max 0.5%	<0.1 %
Refractive Index @ 20°C	1.471-1.474	1.4745
Aldehydes	Max 10 ppm, mg/kg	<10.0
Appearance	clear	Conforms
Chloride (CI) (s)	Max 10 ppm, mg/kg	<10 ppm, mg/kg
Diethylene Glycol (Impurity A)	Max 0.1 ppm, mg/kg	<0.1 ppm, mg/kg
Halogenated Compounds	Max 35 ppm, mg/kg	<35.0 ppm, mg/kg
Heavy metals (as pb)	5 ppm, mg/kg	<5.0 ppm, mg/kg
Identification A	pass	Conforms
Identification B	pass	Conforms
Impurities (< Rt Glycerol)	Max 0.1 %	<0.1 %
Odour	pass	Conforms
Density (Relative 20/20°C)	Min 1.26 %	1.2633
Sugar (s)	Negative	Conforms
Sulphated ash (600+/-50°C)	Max 0.01 %	<0.01 %
Impurities (Total Rt>Rt Glycerol)	Max 0.5 %	<0.5 %



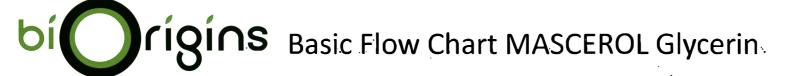
To whom it may concern

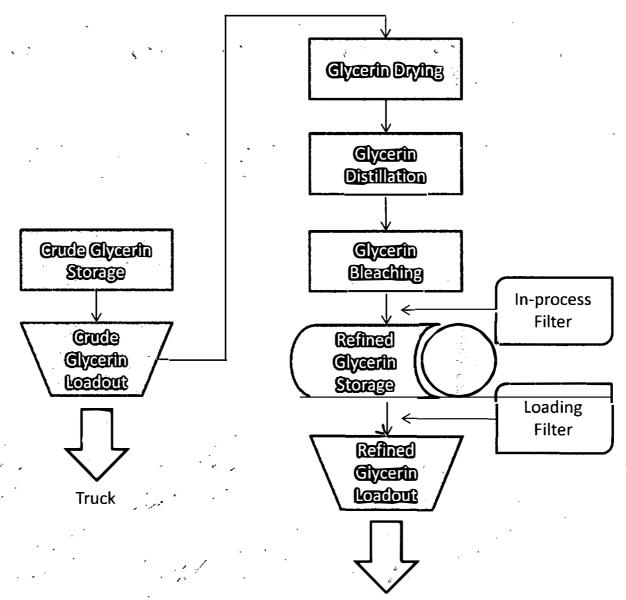
Seite 1 von 1 Hamburg, 15.04.2019

Glycerine – Allergen Statement

This to certify that our *Refined Glycerin*, (non-GMO Grade) products do not contain any of the listed allergens in Annex II of the European Regulation No 1169/2011.

- Cereals containing gluten and products thereof
- Crustaceans and products thereof
- Eggs and products thereof
- Fish and products thereof
- Peanuts and products thereof
- Soybeans and products thereof
- Milk and products thereof
- Nuts and products thereof (Almond, Hazelnut, Walnut, Cashew, Pecan nut, Brazil nut, Pistachio nut, Macadamia nut and Queensland nut)
- Celery and products thereof
- Mustard and products thereof
- Sesame seeds and products thereof
- Sulphur dioxide and sulphites at concentrations of more than 10 mg/kg or 10 mg/litre in terms of the total SO₂
- Lupin and products thereof
- Molluscs and products thereof





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To whom it may concern

25.03.2019

Glycerine- Absence of GMOs

We hereby declare that our Refined Glycerin products not especially named as GMO are derived from non-GMO raw materials.

We hereby confirm that the conventional refined & crude glycerine products are not subject to the labelling requirements specified in the below mentioned regulations unless specifically sold and delivered as genetically modified (GMO) and consequently labelled accordingly.

Regulation (EC) No 1829/2003 of the European Parliament and the Council of September 22nd 2003 on genetically modified food and feed, as amended Regulation (EC) No 1830/2003 of the European Parliament and the Council of September 22nd 2003 concerning the traceability and labelling of genetically modified organisms and the traceability of food and feed products produced for genetically modified organisms and amending Directive 2001/18/EC, as amended.



Trade name: Clycerine Product no.: 1-29

Current version: 2.0.0, issued: 13.09.2019 Region: 1.6.0, issued: 13.05.2019 Region: GB

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

1.1 Product identifier

Trade name

Glycerine

Substance name glycerol

Identification numbers

CAS no. 56-81-5 EC no. 200-289-5

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

Relevant identified uses of the substance or mixture

Additive in detergents, body washing products, cosmetics and other industrial/commercial uses.

Feed and food additives.

Uses advised against

No data available.

1.3 Details of the supplier of the safety data sheet

Address

Madar Corporation Limited 19 - 20 Sandleheath Industrial Estate Fordingbridge. SP6 IPA

Telephone no.

+44 1425 655 555

Fax no.

e-mail technical@madarcorporation.co.uk

1.4 Emergency telephone number

+44 1425 655 555

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification information

This product does not meet the classification and labelling criteria given in the Regulation (EC) No 1272/2008 (CLP).

2.2 Label elements

Not relevant

2.3 Other hazards

No data available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical characterization

Substance name glycerol

Identification numbers

CAS no. 56-81-5 EC no. 200-289-5

3.2 Mixtures



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Not applicable. The product is not a mixture.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

In case of persisting adverse effects, consult a physician. Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing.

After inhalation

Ensure supply of fresh air. Remove affected person from the immediate area.

After skin contact

In case of contact with skin wash off immediately with soap and water.

After eve contact

Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes). Seek medical assistance.

After ingestion

Rinse out mouth and give plenty of water to drink. Do not induce vomiting. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide; Alcohol-resistant foam; Dry chemical extinguisher; Water spray jet

Unsuitable extinguishing media

High power water jet

5.2 Special hazards arising from the substance or mixture

In the event of fire, the following can be released: Carbon monoxide and carbon dioxide

5.3 Advice for firefighters

Use self-contained breathing apparatus. Wear protective clothing. Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Refer to protective measures listed in sections 7 and 8. Ensure adequate ventilation. High risk of slipping due to leakage/spillage of product.

For emergency responders

No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions

Do not discharge into the subsoil/soil. Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Pick up with absorbent material (e.g., sand, kieselguhr, acid binder, universal binder, sawdust).

6.4 Reference to other sections

No data available.



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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Provide good ventilation at the work area (local exhaust ventilation, if necessary). Avoid eye, skin and clothing contact.

General protective and hygiene measures

Do not eat, drink or smoke during work time. Wash hands before breaks and after work. Avoid contact with eyes and skin.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep container tightly closed and dry in a cool, well-ventilated place.

Requirements for storage rooms and vessels

Keep only in the original container.

Incompatible products

Do not store together with: oxidizing agents; Alkalis

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

No	Substance name	CAS no.		EC no.		
1	glycerol	56-81-5		200-289-5		
	List of approved workplace exposure limits (WELs) / EH40					
	Glycerol mist					
	WEL long-term (8-hr TWA reference period)	10	mg/m³			

8.2 Exposure controls

Appropriate engineering controls

No data available.

Personal protective equipment

Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

Eye / face protection

Tightly fitting safety glasses (EN 166).

Hand protection

In case of intensive contact, wear protective gloves (EN 374). Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Appropriate Material butyl rubber Appropriate Material nitrile rubber

Other

Normal chemical work clothing.

Environmental exposure controls

No data available.

SECTION 9: Physical and chemical properties



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9.1 Information on basic physical and chemical properties Form/Colour liquid colourless Odour odourless Odour threshold No data available pH value No data available Boiling point / boiling range 290 $^{\circ}$ Melting point / melting range $^{\circ}$ 18 Decomposition point / decomposition range No data available Flash point 175 Value Ignition temperature $^{\circ}$ 400 **Auto-ignition temperature** No data available Oxidising properties No data available **Explosive properties**

	data available	
-		
	ammability (solid, gas)	
	data available	

Lower flammability or explosive limits	
No data available	

Upper flammability or explosive limits	
No data available	

Vapour pressure			
Value	<	1	hPa
Reference temperature		20	${}^{\circ}\!$
Value	<	1	hPa
Reference temperature		50	${\mathbb C}$

Vapour density	
No data available	

Evaporation rate			
No data available			

Relative density	
No data available	

Density			
Value	1.26	g/cm³	



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Reference temperature	20	℃		Ĵ
Solubility in water				
Comments	Completely miscible			
Solubility(ies)				
No data available				
Partition coefficient: n-octanol/water				
No data available				
Viscosity				
No data available				

9.2 Other information

Other information

No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable under recommended storage and handling conditions (See section 7).

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

Heat; Protect from sun.

10.5 Incompatible materials

Oxidizing agents; Alkalis

10.6 Hazardous decomposition products

No data available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity			
LD50	>	2000	mg/kg
Species	rat		
Acute dermal toxicity			
No data available			
Acute inhalational toxicity			
No data available			
Skin corrosion/irritation			
No data available			
Serious eye damage/irritation			
No data available			
Respiratory or skin sensitisation			
No data available			
Germ cell mutagenicity			
No data available			
Reproduction toxicity			



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No data available

Carcinogenicity
No data available

STOT - single exposure
No data available

STOT - repeated exposure

No data available

Aspiration hazard

No data available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

A sensitisation is possible for persons who are sensitive. Eye contact with the product may cause slight irritation.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish (acute)			
LC50	>	5000	mg/l
Toxicity to fish (chronic)			
No data available			
Toxicity to Daphnia (acute)			
No data available			
Toxicity to Daphnia (chronic)			
No data available			
Toxicity to algae (acute)			
No data available			
Toxicity to algae (chronic)			
No data available			
Bacteria toxicity			
No data available			

12.2 Persistence and degradability

Z.Z Persistence and degradability	
Biodegradability	
Evaluation	biodegradable

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

No data available.

12.7 Other information

Other information

Do not discharge product unmonitored into the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods



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Product

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging

Packaging that cannot be cleaned should be disposed off as product waste. Uncontaminated packaging may be taken for recycling.

SECTION 14: Transport information

14.1 Transport ADR/RID/ADN

The product is not subject to ADR/RID/ADN regulations.

14.2 Transport IMDG

The product is not subject to IMDG regulations.

14.3 Transport ICAO-TI / IATA

The product is not subject to ICAO-TI / IATA regulations.

14.4 Other information

No data available.

14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

14.6 Special precautions for user

No data available.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not relevant

SECTION 15: Regulatory information

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

Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)

In accordance with the Reach regulation (EC) 1907/2006, the product does not contain any substances that are considered as subject to listing in annex XIV, inventory of substances requiring authorisation.

REACH candidate list of substances of very high concern (SVHC) for authorisation

In accordance with article 57 and article 59 of the Reach regulation (EC) 1907/2006, this substance is not considered as subject to listing in annex XIV, inventory of substances requiring authorisation ("Authorization list").

Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, PREPARATIONS AND ARTICLES

The substance is not subject to the provisions of annex XVII (restriction entries) of the Reach regulation (EC) 1907/2006.

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances

This substance is not subject to Part I or 2 of Annex I

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for this substance.

SECTION 16: Other information

Sources of key data used to compile the data sheet:

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EU

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.



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The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding chapter.

This information is based on our present knowledge and experience.

The safety data sheet describes products with a view to safety requirements.

It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

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DFI-123632V01

SPECIFICATION

Glycerine 99.5%

DESCRIPTION

Appearance clear
Odour pass
Country of Manufacture Germany

Shelf life 24 months

Storage Store under ambient conditions, Protect from humidity and water(the

product is hygroscopic), Keep receptacle tightly closed

SPECIFICATIONS

Acidity Max 0.2 mL 0.1M NaOH

Colour (APHA) Max 10

Esters Min 8.0 mL0.1M HCL

Assay (Glycerol) 99.5-101.0 %
Moisture (content Karl Fischer) Max 0.5%
Refractive Index @ 20°C 1.471-1.474

Aldehydes Max 10 ppm, mg/kg
Chloride (Cl) (s) Max 10 ppm, mg/kg
Diethylene Glycol (Impurity A) Max 0.1 ppm, mg/kg
Halogenated Compounds Max 35 ppm, mg/kg

Heavy metals (as pb) 5 ppm, mg/kg
Identification A pass
Identification B pass
Impurities (< Rt Glycerol) Max 0.1 %

Density (Relative 20/20°C) Min 1.26 %

Sugar (s)

Sulphated ash (600+/-50°C)

Impurities (Total Rt>Rt Glycerol)

Negative

Max 0.01 %

Max 0.5 %

Exclusion of Liability

Information contained in this document is accurate to the best of knowledge and beliefs of Madar Corporation Limitie4d.. However, it remains at all time the responsibility of the customer to ensure that materials are suitable and meet the regulations for the particular purpose intended. We accept no liability whatsoever (except as otherwise provided by law) arising out of the use of information supplied.



Vegetarian & Vegan Suitability Statement

PRODUCT NAME: Glycerine

MADAR Corporation Limited can confirm that the above listed product has not been tested in animals and does not contain dairy or any other animal product, by product or derivative and is therefore suitable for vegetarian and vegan use.

17/03/2020