



CERTIFICATE OF ANALYSIS

Product: Vegetable Glycerine EP/USP Grade
Best Before Date: February 2024
Batch No.: 4423707
Storage: 24 months if stored in correct conditions as per Health and Safety Data Sheets

PARAMETER	UNIT	MIN	MAX	RESULT	METHOD
Appearance		Colourless, Odourless		Colourless, Odourless	European Pharmacopoeia
Appearance of solution		Clear		Pass	European Pharmacopoeia
Smell		Absent		Absent	European Pharmacopoeia
Esters	mL 0.1M HCl	8		9.24	European Pharmacopoeia
Colour	HAZEN		10	4	ISO 6271
Refractive Index	---	1.471	1.474	1.474	European Pharmacopoeia
Density @ 20°C	g/cm ³	1.260		1.261	European Pharmacopoeia
Acidity	mL 0.1M NaOH		0.2	0.08	European Pharmacopoeia
Aldehydes	mg/kg		10	Passes test	European Pharmacopoeia
Halogenated Compounds	mg/kg		30	Passes test	European Pharmacopoeia
Chlorides	mg/kg		10	Passes test	European Pharmacopoeia
Sugar	Test	Negative		Negative	European Pharmacopoeia
Acroleine, Glucose, Ammonium compounds		Negative		Negative	REG (EU) 231/2012 no E422
Assay	% (m/m)	99.5		99.7	European Pharmacopoeia
3-MCPD	mg/kg		0.1	<0.05	GC/MS



Compliance with items listed below is assured through regular monitoring analyses performed at an external lab.			
PARAMETER	UNIT		METHOD
Identity A, B, C, D		Pass	European Pharmacopoeia
Heavy Metals (USP)	mg/kg	5	US Pharmacopoeia
Arsenic	mg/kg	Max 0.1	DIN EN 15763
Mercury	mg/kg	Max 0.1	SOP M 2567
Cadmium	mg/kg	Max 1	DIN EN 15763
Lead	mg/kg	Max 0.1	DIN EN 15763
Nickel	mg/kg	Max 20	DIN EN 15763
Sodium	% (m/m)	Max 0.1	DIN EN 15510
Potassium	% (m/m)	Max 0.1	DIN EN 15510
Sulphates	mg/kg	Max 20	US Pharmacopoeia
Sulphated Ash	% (m/m)	Max 0.01	European Pharmacopoeia
Impurity A (DEG)	% (m/m)	Max 0.1	European Pharmacopoeia
Any other impurity retention time less Glyc	% (m/m)	Max 0.1	European Pharmacopoeia
Total of all impurities retention time greater Glyc	% (m/m)	Max 0.5	European Pharmacopoeia
Butanetriols		Max 0.2	GC/MS

The goods detailed above and the tests specified have been provided by the manufacturer of the product as supplied to Madar Corporation Limited.

Madar Corporation Limited makes the limited warranty that at the date of delivery this product will be free from defects in materials and workmanship.

No warranty of merchantability, fitness for any use, or any other warranty is expressed or to be implied, regarding the accuracy of this data. The results to be obtained from the use thereof, or the hazards connected with the use of this product.

Madar Corporation Limited. assumes no liability for any alleged ineffectiveness of the product or any injury or damage, direct or consequential, resulting from the use of this product unless such injury or damage is solely attributable to negligence on the part of Madar Corporation Limited.

The user of the product is solely responsible for compliance with all laws and regulations applying to the use of the products, including intellectual property rights of third parties.



MANUFACTURING FLOW CHART

1.1 PRODUCT NAME:

Glycerine

Synonyms:

1,2,3 Propanetriol

Glycerol

Glycyl Alcohol

INCI name:

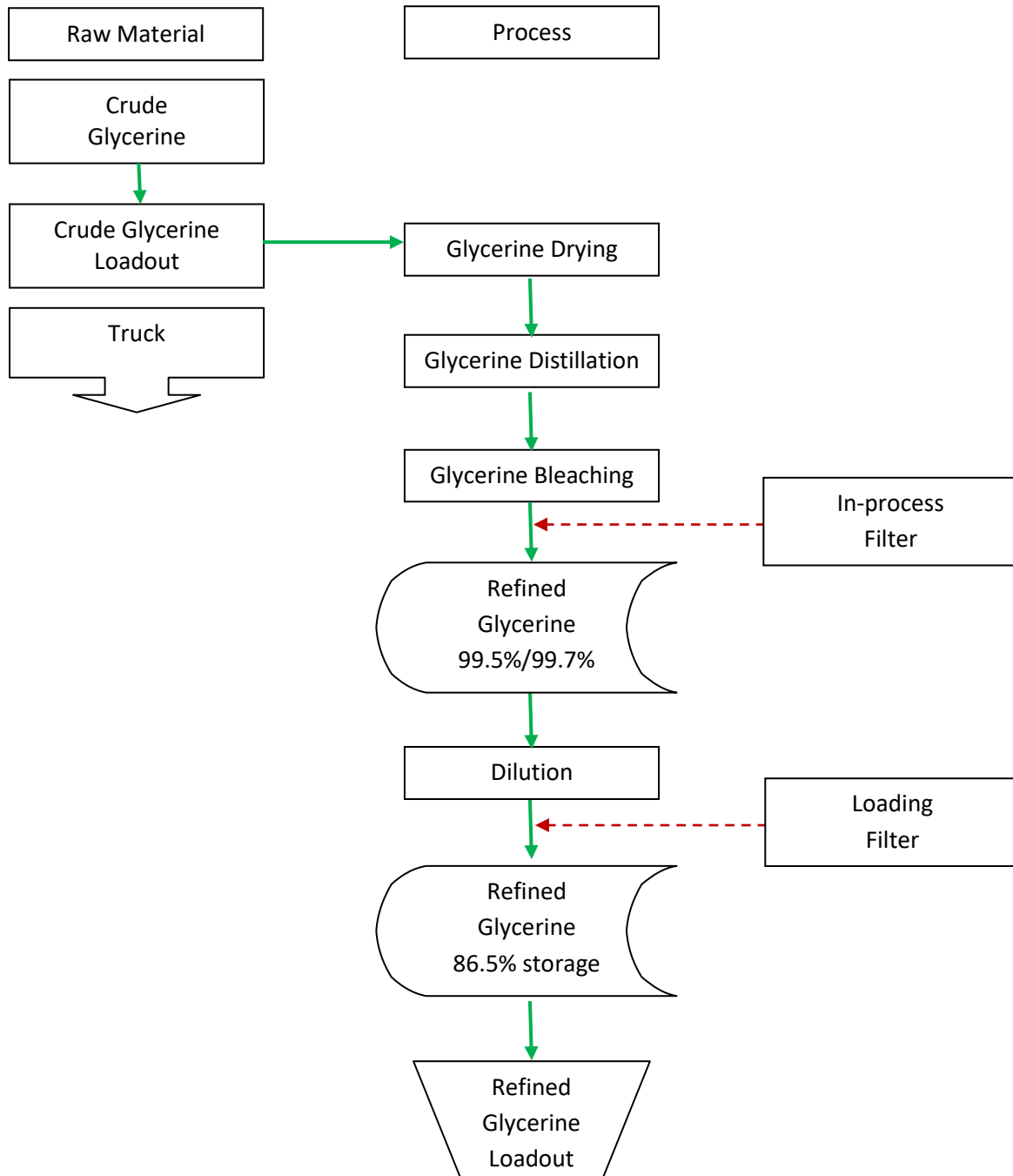
Glycerin

REACH Registered No.

Exemption under Annex V.

CAS No. 56.81.5

EC No. 200-289-5





GMO STATEMENT

Product: Vegetable Glycerine EP/USP Grade

We hereby declare that Vegetable Glycerine EP/USP Grade not especially named as GMO are derived from non-GMO raw materials.

We hereby confirm that the conventional refined and 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 Council on September 22nd 2003 on genetically modified food and feed, as amended Regulation (EC) no 1830/2003 of the European Parliament and Council on September 22nd 2003 concerning the traceability and labelling genetically modified organisms and the traceability of food and feed products produced genetically modified organisms and amending directive 2001/18/EC, as amended.

March 2020.



DATE : 12/05/18

SHEET 1 of 7

Glycerine

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY NAME

1.1 PRODUCT NAME:

Glycerine

Synonyms:

1,2,3 Propanetriol

Glycerol

Glycyl Alcohol

INCI name:

Glycerin

REACH Registered No.

Exemption under Annex V.

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:

Anti-freezing agent. Chemical intermediate. Chemical manufacturing. Feed and food additive. Personal care products.

Uses advised against:

No data available.

1.3 DETAILS OF THE SUPPLIER:

Madar Corporation Limited

19 -20 Sandleheath Industrial Estate

Fordingbridge

SP6 1PA

Tel. +44 (0)1425 655 555

e-mail: technical@madarcorporation.co.uk

2. HAZARDS IDENTIFICATION

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE:

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

2.2. LABEL ELEMENTS:

This product has no label elements.

2.3 OTHER HAZARDS:

No data available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. CHEMICAL IDENTITY:

Glycerine.

CAS REGISTRY NO.:

56-81-5.

EINECS NO.:

200-289-5.



DATE : 12/05/18
Glycerine

SHEET 2 of 7

4. FIRST AID MEASURES

4.1. DESCRIPTION OF FIRST AID MEASURES:

General Information:

In case of persistent adverse effects, consult a physician. Remove contaminated clothing and shoes immediately, and launder thoroughly before re-using.

Eye 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.

Skin contact:

Wash off immediately with soap and water.

Ingestion:

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

Inhalation:

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

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:

No data available.

4.3 INDICATION OF ANY IMMEDIATE/SPECIAL TREATMENT NEEDED:

No data available.

5. FIRE FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA:

Suitable extinguishing media:

Carbon di-oxide, alcohol resistant foam, dry chemical extinguisher, water spray jet.

Unsuitable extinguishing media:

High power water spray jet.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

In the event of fire, the following can be released: Carbon di-oxide, Carbon mon-oxide.

5.3 PROTECTION FOR FIRE-FIGHTERS:

Wear self contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes. Fire residues and contaminated firefighting water must be disposed of in accordance with local regulations.

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:

For non-emergency personnel:

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

For emergency personnel:

No data available. Personal Protective Equipment (PPE) – see section 8.

6.2 ENVIRONMENTAL PRECAUTIONS:

Do not discharge into drains or rivers. Do not discharge into soil/subsoil. Contain the spillage using bunding.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:

Absorb into dry earth or sand. Transfer to a closed, labelled salvage container for disposal by an appropriate method. Wash the spillage site with a large amount of water.



DATE : 12/05/18
Glycerine

SHEET 3 of 7

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING:

Advice for safe handling:

Provide good ventilation at the work area (local exhaust ventilation if necessary). Wear suitable protective clothing. Avoid the formation or spread of mists in the air. Avoid contact with the material. Causes slippery surface when spilled.

7.2 CONDITIONS FOR SAFE STORAGE:

Technical measures and storage conditions:

Store in cool, well ventilated area. Keep containers tightly closed. Protect from low temperatures and frost.

Requirements for storage rooms and vessels:

Must only be kept in original packaging.

Advice on storage assembly:

Do not store together with oxidising agents and alkalis.

7.3 SPECIFIC END USES:

No data available.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS:

Occupational exposure limit values:

Respirable dust UK: 8 hour TWA – 10mg/m³ (mist).

8.2 EXPOSURE CONTROLS:

Appropriate engineering controls:

No data available.

Personal protective equipment:

Eye protection:

Safety goggles (EN166). Ensure eye bath is to hand.

Skin protection:

In case of intensive contact, wear protective gloves (EN374). Sufficient protection is given wearing suitable protective gloves checked according to EN374, 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 anti-static properties). Adhere to the manufacturers 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/nitrile rubber.

Respiratory protection::

If workplace exposure limits are exceeded, a respiratory 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 that workplace threshold values are not specified.

Other:

Normal chemical work clothing.



DATE : 12/05/18

SHEET 4 of 7

Glycerine

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Liquid
COLOUR:	Colourless
ODOUR:	Barely perceptible odour.
EVAPORATION RATE:	Negligible.
OXIDISING:	Non-oxidising by EC criteria.
SOLUBILITY IN WATER:	Soluble.
VISCOSITY:	Viscous.
BOILING POINT (°C):	> 290.
FLAMMABILITY:	No data available.
FLASH POINT (°C):	175.
IGNITION TEMPERATURE (°C):	400.
RELATIVE DENSITY @ 20°C:	1.26g/ml.
MELTING POINT (°C):	~18.
VAPOUR PRESSURE:	1 hPa @ 20°C.
pH:	No data available.

10. STABILITY AND REACTIVITY

10.1 REACTIVITY:

No data available.

10.2 CHEMICAL STABILITY:

Stable under normal conditions.

10.3 HAZARDOUS REACTIONS:

Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

10.4 CONDITIONS TO AVOID:

Heat. Low temperatures and frost.

10.5 MATERIALS TO AVOID:

Oxidising agents. Alkalis.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS:

In combustion emits toxic fumes of carbon di-oxide/carbon mon-oxide. Acrolein.

11. TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

Oral:

Rat LD50 2000mg/kg.

Dermal:

No data available.

Skin:

No data available.

Eye contact:

No data available.

Germ cell mutagenicity:

No data available.

Reproduction toxicity:

No data available.



DATE : 12/05/18

SHEET 5 of 7

Glycerine

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.

12. ECOLOGICAL INFORMATION

12.1 TOXICITY:

Toxicity to fish (acute):

LC50 Test: > 5000mg/l.

Toxicity to fish (chronic):

No data available.

Toxicity to daphnia (acute):

No data available.

Toxicity to daphnia (chronic):

No data available.

Bacteria toxicity:

No data available.

12.2 PERSISTENCE AND DEGRADABILITY:

Biodegradability:

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:

Do not discharge product un-monitored into the environment.

13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS:

Product:

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



DATE : 12/05/18
Glycerine

SHEET 6 of 7

Packaging:

Contaminated containers must not be treated as household waste. Where practical, containers and packaging should be recycled by a licensed contractor (note regional or national regulations).

14. TRANSPORT INFORMATION

14.1 TRANSPORT ADR/RID/ADN:

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

14.2 TRANSPORT IMDG:

This product is not subject to IMDG regulations.

14.3 TRANSPORT ICAO-TI/IATA:

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

14.4 OTHER INFORMATION:

No data available.

14.5 ENVIRONMENTAL HAZARDS:

See sections 14.1 to 14.3.

14.6 SPECIAL PRECAUTIONS FOR USER:

No data available.

14.7 TRANSPORT IN BULK ACCORDING TO ANNEXII OF MARPOL AND THE IBC CODE:

Not relevant.

15. REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE:

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.

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 2011/28/EU on the control of major accident hazards involving dangerous substances:

The substance is not subject to Part 1 or 2 of Annex I.

15.2 CHEMICAL SAFETY ASSESSMENT:

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



DATE : 12/05/18
Glycerine

SHEET 7 of 7

16. OTHER INFORMATION

This safety data sheet is prepared in accordance with Commission Regulation (EU) No. 1907/2006 (REACH), 1272/2008 (CLP) as amended, EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EU.

Legal disclaimer:

The information provided in this safety data sheet is correct to the best of our knowledge at the time of publication. It is given in good faith but no warranty is implied with respect to the quality and specification of the product. The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and does not constitute a legal relationship. The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

The customer must satisfy themselves that the product is entirely suitable for their own purposes.

Although certain hazards may be described we cannot predict that these are the only hazards, or combination of hazards, that may exist in a workplace. This MSDS, therefore, forms a component only of a risk assessment carried out by, or on behalf of, the user.



VEGETABLE GLYCERINE

Technical Data

Assay (as Glycerine)	99.5% w/w min.
Colour	10 Alpha max.
Sulphated Ash	0.01% max.
Chloride	10ppm max.
Appearance	Clear viscous liquid
Density	~1.26g/ml @20°C
CAS No.	56-81-5
EINECS No.	200-289-5
INCI Name	Glycerin
Origin	Vegetable

Product is manufactured to meet both the European pharmacopoeia (EP) and United States pharmacopoeia (USP) specifications. It is manufactured to be Kosher and Halal certified and classified to be used as a food additive according to E422.

Our glycerine is also produced without the use of raw materials originating from the Jatropha plant or its oils - the Jatropha plant is classified as a noxious weed in some countries. The oil produced from the Jatropha plant contains carcinogenic substances and presents a significant human and animal health risk.

Our glycerine has not been tested on animals.

In addition to this the product fulfils the requirements of EC Directive 2007/68/EC stating the allowed content of allergenic substances of foodstuff ingredients. Hence it does not contain any allergenic substances of Appendix III such as:

Gluten containing grain
Shellfish and obtained products
Eggs and obtained products
Fish and obtained products
Peanuts and obtained products
Soybeans and obtained products



Milk and out of milk obtained products

Edible nuts such as almonds (*Amygdalus communis* L.), Hazel nuts (*corylus avellana*), Walnuts (*juglans regia*), Cashew nuts (*Anacardium occidentale*), Pecans (*Carya illinoensis* (Wangenh) K. Koch), Para nuts (*Bertholettia excelsa*), Pistachios (*pistacia vera*), Macadamia nuts and Queensland nuts (*macadamia ternifolia*)

and obtained products

Celery and obtained products

Mustard and obtained products

Sesame seed and obtained products

Sulphur dioxide and sulphite in concentrations higher than 10mg/kg or 10mg/l, as SO₂

Lupins and obtained products

Molluscs and obtained products

The content of this data sheet is given in good faith and without warranty.

Madar Corporation Limited makes the limited warranty that at the date of delivery this product will be free from defects in materials and workmanship.

No warranty of merchantability, fitness for any use, or any other warranty is expressed or to be implied, regarding the accuracy of this data. The results to be obtained from the use thereof, or the hazards connected with the use of this product.

We assume no liability for any alleged ineffectiveness of the product or any injury or damage, direct or consequential, resulting from the use of this product unless such injury or damage is solely attributable to negligence on the part of Madar Corporation Limited

Issue 15.06.17



DECLARATION AND CONFORMITY VEGAN INGREDIENT STATEMENT

Product: Vegetable Glycerine EP/USP Grade

Madar Corporation Limited, declare that the raw materials listed below may be considered vegan according to the following definitions:

- 1) Vegetable Glycerine is derived from vegetable oil and free from animal, animal parts or derivatives.
- 2) Therefore, our product is suitable for Vegans, Vegetarians, Ovo Vegetarians, Lacto Vegetarians and Lacto-Ovo Vegetarians.