



Product Safety Sheet

Revision Date: 01-Nov-2016

Revision Number: 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product Code:

12800EU, 12801EU, 12802EU, 12803EU

Synonyms: Trade names: Concerine CD 99.5 nat ref glycerin;
Concerine CD 99.5 nat ref glycerin - E422; Concerine CD 99.5
nat ref glycerin - E422 - RSPO; CD98 Glycerol (technical)

Product Name:

Glycerol

Use of the Substance / Preparation:

Industrial, professional or consumer applications.

Contact Manufacturer:

ADM Hamburg AG, Werk Hamburg, Nippoldstraße 117, 21107
Hamburg [DE] Tel. + 49 40 751 94 0

EU Emergency Telephone Number:

National Helpdesk Contacts provided by ECHA:
<http://echa.europa.eu/web/guest/support/helpdesks/national-help-desks/list-of-national-helpdesks>
Please contact your well-known contact partner at ADM, contact the relevant production facility, or contact the technical support personnel (only during office hours).

2. HAZARDS IDENTIFICATION

Classification according to Regulation (EC) No. 1272/2008

This product does not meet the criteria for classification in any hazard class according to Regulation (EC) No. 1272/2008 on classification, labeling and packaging of substances and mixtures. An SDS is not required for this product.

This substance is covered under Annex V(9) of REACH regulation, hence exempt from registration.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Family

Polyols

Chemical Name	EC-No	CAS-No	CLP Annex VI Index No.	Weight %	Classifications
Glycerol	200-289-5	56-81-5	not listed	98-100	not listed

4. FIRST AID MEASURES

Description of first aid measures

Eye Contact Immediately flush with plenty of water and seek medical advice when necessary.

Skin Contact Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Consult a physician if necessary.

Inhalation Move to fresh air. If symptoms persist, call a physician.

Ingestion Clean mouth with water and afterwards drink plenty of water. Consult a physician if necessary.

Protection of First-aiders Use personal protective equipment.

General Advice If symptoms persist, call a physician. Show this safety data sheet to the doctor in attendance.

Most important symptoms and affects, both acute and delayed

Eyes Not expected to pose health issues for the eye.

Skin Health injuries are not known or expected under normal use.

Inhalation Health injuries are not known or expected under normal use. When in the form of an airborne mist, refer to section 8 of this sheet for exposure limits pertaining to "vegetable oil mist". Excessive inhalation of mist may result in respiratory irritation.

Ingestion Not expected to pose significant health issues. Consult a physician if necessary.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media Water mist, carbon dioxide, fire extinguishing powder and sand.

Unsuitable extinguishing media Solid water stream: Superheating effect. Scattering may spread the fire.

Special hazards arising from the substance or mixture

Hazardous Combustion Products Thermal decomposition produces acrolein. Carbon monoxide (CO). Carbon dioxide (CO₂). Thermal decomposition can lead to release of irritating gases and vapors.

Specific Hazards Arising from the Chemical None known.

Special exposure hazards in a fire Formation of acrolein by thermal decomposition (>270°C)

Advice for fire-fighters

Special protective equipment for fire-fighters In the event of fire, wear self contained breathing apparatus in accordance with EN 137:2006.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Ensure adequate ventilation. Avoid wet spills, as surfaces can become very slippery. Use appropriate personal protective equipment.

Environmental Precautions

Avoid discharge into sewage systems, water courses or onto ground. Prevent further leakage or spillage.

Methods for Cleaning up

Dam up, Soak up with inert absorbent material. Pick up and transfer to properly labelled containers. Clean up with water.

7. HANDLING AND STORAGE

Handling

Ensure adequate ventilation Wear personal protective equipment. Do not breathe vapors or spray mist. Avoid contact with skin and eyes

Storage

Prevent accidental release into sewage systems, water courses or onto ground. Protect from atmospheric moisture.

Specific end use(s)

Apply appropriate product hygiene according to the intended final use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

As an airborne mist, exposure limits have been provided below. Components with workplace control parameters.

Chemical Name	Austria	Belgium	Bulgaria	Cyprus	Czech Republic
Glycerol	-	TWA: 10 mg/m ³ mist	-	-	TWA: 10 mg/m ³ Ceiling: 15 mg/m ³
Chemical Name	Denmark	Estonia	Finland	France	Germany
Glycerol	-	TWA: 10 mg/m ³	TWA: 20mg/m ³	TWA: 10 mg/m ³	TWA: 50mg/m ³ Ceiling: 100mg/m ³
Chemical Name	Greece	Hungary	Ireland	Italy	Latvia
Glycerol	TWA: 10 mg/m ³	-	TWA: 10mg/m ³	-	-
Chemical Name	Lithuania	Luxembourg	Malta	Netherlands	Poland
Glycerol	-	-	-	-	TWA: 10 mg/m ³
Chemical Name	Portugal	Romania	Slovakia	Slovenia	Spain
Glycerol	TWA: 10mg/m ³ mist	-	-	-	TWA: 10 mg/m ³
Chemical Name	Sweden		United Kingdom		EU
Glycerol	-		STEL: 30 mg/m ³ mist TWA: 10 mg/m ³ mist		-

Appropriate Engineering Controls

Ensure adequate ventilation, especially in confined areas. Apply technical measures to comply with the occupational exposure limits. However it is the duty of the user to verify this and follow given exposure limits at the workplace.

General Hygiene Considerations

Ensure that proper house keeping measures are in place, contaminated materials should not be allowed to accumulate in the work place.

Environmental exposure controls

Prevent accidental release into sewage systems, water courses or onto ground.

Personal Protective Equipment

Eye Protection If product may splash or accidentally be ejected, the use of safety goggles is recommended.

Hand Protection The use of suitable protective gloves is recommended as good practice.

Skin and Body Protection When handling hot product: use suitable personal protection measures.

Respiratory Protection If sprayed or finely dispersed in air, respiratory protection is recommended, eg. dust masks.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear / Colorless
Form	Liquid at 20°C
Odor	Bland
Odor Threshold	Not applicable
pH	5 - 7 approx.
Flash Point	160-190 °C / (320-374°F) (closed cup)
Autoignition Temperature	393°C / 739°F
Boiling point	290°C / 554°F
Melting/Freezing Point	18°C / 64°F
Decomposition temperature	No information available
Oxidizing Properties	Not expected to be oxidising
Relative Density	1.26g/cm ³ at 20°C
Solubility(ies)	Miscible with alcohol, slightly soluble in acetone, practically insoluble in fatty oils.
Evaporation Rate	No information available
Vapor Pressure	< 0.01 Pa at 20°C
Vapor Density	Not applicable
Viscosity (kinematic)	1410 mPa.s at 20°C
Partition Coefficient (n-octanol/water)	approx. -1.76
Explosive Properties	Not explosive

10. STABILITY AND REACTIVITY

Stability Stable under recommended use and storage conditions.

Possibility of Hazardous Reactions None under normal processing.

Conditions to Avoid Extremes of temperature and direct sunlight. To avoid thermal decomposition, do not heat above 270°C to prevent acrolein formation.

Incompatible Materials Do not bring into contact with strong oxidizing agents.

Hazardous Decomposition Products No thermal decomposition if used according to specifications/ at temperatures below 150°C.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity		Based on available data, no evidence of acute toxicity			
Chemical Name	Weight %	LD50 Oral	LD50 Dermal	LC50 Inhalation	
Glycerol	98-100	12600 mg/kg Rat	21900 mg/kg Rat		

Skin corrosion/irritation	Based on available data, the classification criteria are not met
Serious eye damage/eye irritation	Based on available data, the classification criteria are not met
Respiratory or skin sensitisation	Based on available data, the classification criteria are not met
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met
Reproductive toxicity	Not expected to be toxic to reproduction.
STOT - single exposure	Based on available data, the classification criteria are not met
STOT - repeated exposure	Based on available data, the classification criteria are not met
Aspiration hazard	Based on available data, the classification criteria are not met

Potential health effects

Eyes

Not expected to pose health issues for the eye.

Skin

Health injuries are not known or expected under normal use.

Inhalation

Health injuries are not known or expected under normal use. When in the form of an airborne mist, refer to section 8 of this sheet for exposure limits pertaining to "vegetable oil mist". Excessive inhalation of mist may result in respiratory irritation.

Ingestion

Not expected to pose significant health issues. Consult a physician if necessary.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Contains no substances known to be hazardous to the environment. Contains no substances known to be not degradable in waste water treatment plants.

Chemical Name	Fresh Water Algae	Acute Fish Toxicity	Daphnia (Water flea)	Effects on micro-organisms	Other
Glycerol	-	LC50: 96h 51 - 57mL/L (Oncorhynchus mykiss) static	EC50: 24h 500 mg/L (Daphnia magna)	-	-

Persistence/Degradability This substance is 'readily biodegradable'. It will not bio accumulate.

Mobility Soluble in water.

13. DISPOSAL CONSIDERATIONS

Whenever possible, as rules and regulations allow, please recycle or manage materials to minimize waste.

Waste Disposal Methods

Incinerate in approved installations or use other disposal methods in line with the applicable legislation. Should not be released into the environment.

Contaminated Packaging

Empty containers should be decontaminated and taken for local recycling, recovery or waste disposal. Disposal must be made according to official regulations.

14. TRANSPORT INFORMATION

<u>RID</u>	Not regulated.
<u>ADR</u>	Not regulated.
<u>ADN</u>	Not regulated.
<u>ICAO</u>	Not regulated.
<u>IATA</u>	Not regulated.
<u>IMDG/IMO</u>	Not regulated.

15. REGULATORY INFORMATION

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

International Inventories

Chemical Name	EINECS	ELINCS	DSL	NDSL	AICS	CHINA	ENCS ISHL	KECL	NZIoC	PICCS	TSCA
Glycerol	Yes 200-289-5	No	Yes	No	Yes	Yes	Yes 2-242 7-338 2-242	Yes Annex 1 (KE-29297)	Yes	Yes	Yes

WGK Classification:

Water endangering class = 1: low hazard.

16. OTHER INFORMATION

Indication of changes

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1

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This version replaces all previous versions.

Abbreviations and acronyms

- ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
- ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
- AICS - Australian Inventory of Chemical Substances (Australia)
- CAS - Chemical Abstract Service
- CHINA - Chinese Inventory of Existing Chemical Substances (China)
- CLP - Classification, Labelling and Packaging, Regulation (EC)1272/2008
- CSA - Chemical Safety Assessment
- CSR - Chemical Safety Report
- DNEL - Derived No Effect Level
- DSL - Domestic Substance List (Canada)
- EC - European Commission
- EC50 - Half maximal effective concentration
- EINECS - European Inventory of Existing Commercial Chemical Substances (EU)
- ELINCS - European List of Notified Chemical Substances (EU)
- ENCS - Existing and New Chemical Substances (Japan) / ISHL - Industrial Health and Safety Law (Japan)
- IATA - International Air Transport Association Dangerous Goods Regulations
- ICAO - International Civil Aviation Organisation
- IMDG - International Maritime Dangerous Goods Code
- IMO - International Maritime Organization
- KECL - Korean Existing and Evaluated Chemical Substances (Korea)
- LC50 - Lethal concentration that produces fatalities in 50% of a given test population
- LD50 - Median lethal dose of a given test population
- NDSL - Non Domestic Substances List (Canada)
- NZIoC - New Zealand Inventory of Chemicals (New Zealand)
- OECD - Organisation for Economic Co-operation and Development
- PICCS - Inventory of Chemicals and Chemical Substances (Philippines)
- PNEC - Predicted No-Effect Concentration
- REACH - Registration, Evaluation, Authorisation and Restriction of Chemical substances
- RID - Regulations Concerning the International Carriage of Dangerous Goods by Rail
- STOT - Specific Target Organ Toxicity
- TSCA - Toxic Substances Control Act, Section 8(b) Inventory (USA)
- TWA - Time Weighted Average: Average concentration that should not be exceeded during a work day (usually 8-hours)
- WGK - Wassergefährdungsklasse (German: Water Hazard Class)

The information provided on this sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information 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

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