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

· 1.1 Product identifier

· Trade name: Refined Glycerin (Applicable for 99.7% and 99.5% Assay Levels)

· CAS Number:

56-81-5

· EC number:

200-289-5

• 1.2 Relevant identified uses of the substance or mixture and uses advised against No further relevant information available.

- · Application of the substance / the mixture Laboratory chemicals
- · 1.3 Details of the supplier of the Safety Data Sheet
- · Manufacturer/Supplier:

CLP Chemicals, Inc. 3700 Buffalo Speedway Suite 600 Houston, Texas 77098

Phone: 281-558-4474 Toll-Free: 877-558-4474 Fax: 281-558-4473

· 1.4 Emergency telephone number:

Contact Supplier. +1 (281) 558-4474

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008

The substance is not classified as hazardous according to the CLP regulation.

- · Classification according to Directive 67/548/EEC or Directive 1999/45/EC Not applicable.
- Information concerning particular hazards for human and environment: Not applicable.
- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008 Not Regulated
- · Hazard pictograms Not Regulated
- · Signal word Not Regulated
- · Hazard statements Not Regulated
- · Hazard description:
- · WHMIS-symbols: Not hazardous under WHMIS.
- · NFPA ratings (scale 0 4)



Health = 0 Fire = 1 Reactivity = 0

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· HMIS-ratings (scale 0 - 4)

· HMIS Long Term Health Hazard Substances

Substance is not listed.

- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- PBT: Not applicable.vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- · 3.1 Substances
- · CAS No. Description

56-81-5 glycerol

- Identification number(s)
- · EC number: 200-289-5

SECTION 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.

Clean with water and soap.

If skin irritation continues, consult a doctor.

· After eye contact:

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

- 4.2 Most important symptoms and effects, both acute and delayed Gastric or intestinal disorders.
- · Hazards No further relevant information available.
- · 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

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SECTION 5: Firefighting measures

5.1 Extinguishing media

· Suitable extinguishing agents:

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

- · For safety reasons unsuitable extinguishing agents: None.
- 5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released:

Carbon monoxide (CO)

- 5.3 Advice for firefighters
- · Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

· Additional information

Eliminate all ignition sources if safe to do so.

Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

- **6.2 Environmental precautions:** Dilute with plenty of water.
- 6.3 Methods and material for containment and cleaning up:

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

Send for recovery or disposal in suitable receptacles.

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Prevent formation of aerosols.

Ensure good ventilation/exhaustion at the workplace.

- Information about fire and explosion protection: No special measures required.
- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles:

Avoid storage near extreme heat, ignition sources or open flame.

Protect from humidity and water.

- Information about storage in one common storage facility: Store away from oxidising agents.
- · Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.

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Protect from humidity and water.

· 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- · Additional information about design of technical facilities: No further data; see item 7.
- · 8.1 Control parameters
- · Ingredients with limit values that require monitoring at the workplace:

56-81-5 glycerol

PEL (USA) 15* 5** mg/m³

*total dust **respirable fraction

TLV (USA) 10* ppm

*Mist

EL (Canada) 10* 3** mg/m³

*mist; **mist, resirable

EV (Canada) 10 mg/m³

- · **DNELs** No further relevant information available.
- · PNECs No further relevant information available.
- · Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eves.

Avoid close or long term contact with the skin.

· Respiratory protection:

Not required under normal conditions of use.

Use suitable respiratory protective device when aerosol or mist is formed.

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

· Material of gloves

Rubber aloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

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· Penetration time of glove material

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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

· Body protection:

Not required under normal conditions of use.

Protection may be required for spills.

- · Limitation and supervision of exposure into the environment No special requirements.
- Risk management measures

See Section 7 for additional information.

No special requirements.

SECTION 9: Physical and chemical properties

- · 9.1 Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form:
Colour:
Colour:
Colourless
Odourless
Odour threshold:
Not determined.

pH-value:
Not determined.

· Change in condition

Melting point/Melting range:
Boiling point/Boiling range:18,2 °C (90,4 °F)
290 °C (580 °F)· Flash point:193 °C (405 °F)· Flammability (solid, gaseous):Not applicable.· Auto/Self-ignition temperature:400 °C (777,6 °F)· Decomposition temperature:Not determined.· Self-igniting:Not determined.

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

· Explosion limits:

Vapour pressure at 25 °C: <0,1 hPa
 Density at 20 °C: 1,24 g/cm³
 Relative density Not determined.

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Vapour densityEvaporation rateNot determined.Not determined.

· Solubility in / Miscibility with

water: Fully miscible.Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

Dynamic: Not determined. **Kinematic:** Not determined.

· Solvent content:

Organic solvents: Not determined.

• 9.2 Other information No further relevant information available.

SECTION 10: Stability and reactivity

- · 10.1 Reactivity
- 10.2 Chemical stability
- · Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

10.3 Possibility of hazardous reactions

Reacts with strong oxidising agents.

Reacts with strong acids.

- 10.4 Conditions to avoid Store away from oxidising agents.
- 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products: Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity:
- · LD/LC50 values relevant for classification:

56-81-5 glycerol

Oral LD50 12600 mg/kg (rat)

- Primary irritant effect:
- · on the skin: No irritant effect.
- · on the eye: Slight irritant effect on eyes.
- · Sensitisation: No sensitising effects known.
- · Additional toxicological information:

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.



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SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability biodegradable
- · 12.3 Bioaccumulative potential Does not accumulate in organisms.
- · 12.4 Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

The declarations are valid for the component with the highest toxicological risk.

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- 12.5 Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.

Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

Contact waste processors for recycling information.

- · Uncleaned packaging:
- · Recommendation: Disposal must be made according to official regulations.
- Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport information

· 14.1 UN-Number

· DOT, ADR, ADN, IMDG, IATA Not Regulated

· 14.2 UN proper shipping name

· DOT, ADR, ADN, IMDG, IATA Not Regulated

· 14.3 Transport hazard class(es)

· DOT, ADR, ADN, IMDG, IATA

· Class Not Regulated

· 14.4 Packing group

· DOT, ADR, IMDG, IATA Not Regulated

· 14.5 Environmental hazards:

· Marine pollutant: No

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· 14.6 Special precautions for user

· 14.7 Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code Not

· UN "Model Regulation":

Not applicable.

Not applicable.

SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · United States (USA)
- ·SARA
- · Section 355 (extremely hazardous substances):

Substance is not listed.

· Section 313 (Specific toxic chemical listings):

Substance is not listed.

· TSCA (Toxic Substances Control Act):

Substance is listed.

- · Proposition 65 (California):
- · Chemicals known to cause cancer:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

· Chemicals known to cause developmental toxicity:

Substance is not listed.

- · Carcinogenic Categories
- · EPA (Environmental Protection Agency)

Substance is not listed.

· IARC (International Agency for Research on Cancer)

Substance is not listed.

TLV (Threshold Limit Value established by ACGIH)

Substance is not listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed.

- · Canada
- · Canadian Domestic Substances List (DSL)

Substance is listed.

· Canadian Ingredient Disclosure list (limit 0.1%)

Substance is not listed.

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· Canadian Ingredient Disclosure list (limit 1%)

Substance is not listed.

- · National regulations:
- · Other regulations, limitations and prohibitive regulations
- · Substances of very high concern (SVHC) according to REACH, Article 57

Substance is not listed.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· 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

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals ACGIH: American Conference of Governmental Industrial Hygienists EINECS:

European Inventory of Existing Commercial Chemical Substances CAS:

Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Sources

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