

R49770 Glycerol PPA, >=99,5% 1,00LFL

00000020513

Version 1.0

Revision Date 10/06/2016

Print Date 05/22/2019

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Glycerol

Number : 00000020513

Product Use Description : Laboratory chemicals

Manufacturer or supplier's details : Honeywell International Inc.
1953 South Harvey Street
Muskegon, MI 49442

For more information call : 1-800-368-0050
+1-231-726-3171
(Monday-Friday, 9:00am-5:00pm)

In case of emergency call : Medical: 1-800-498-5701 or +1-303-389-1414
: **Transportation (CHEMTREC): 1-800-424-9300 or**
: **+1-703-527-3887**
:
: (24 hours/day, 7 days/week)

SECTION 2. HAZARDS IDENTIFICATION**Emergency Overview**

Form : liquid

Color : colourless

Odor : odourless

Classification of the substance or mixture

Not a dangerous substance or mixture according to the Globally Harmonised System (GHS).

Precautionary statements : **Prevention:**
Use personal protective equipment as required.

Carcinogenicity

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No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, or OSHA.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Substance

| Chemical name | CAS-No. | Concentration |
|---------------|---------|---------------|
| Glycerol | 56-81-5 | 100.00 % |

SECTION 4. FIRST AID MEASURES

- General advice : First aider needs to protect himself. Move out of dangerous area. Take off all contaminated clothing immediately.
- Inhalation : If breathed in, move person into fresh air. If symptoms persist, call a physician.
- Skin contact : After contact with skin, wash immediately with plenty of soap and water. If symptoms persist, call a physician.
- Eye contact : Rinse thoroughly with plenty of water, also under the eyelids. Protect unharmed eye. If eye irritation persists, consult a specialist.
- Ingestion : When swallowed, allow water to be drunk. Consult a physician if necessary.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Water spray jet
Foam
Carbon dioxide (CO₂)
Dry powder
- Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.
- Specific hazards during firefighting : Fire may cause evolution of:
Acrolein
carbon oxides (CO, CO₂).

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Special protective equipment for firefighters : Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.

Further information : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Wear personal protective equipment.
Material can create slippery conditions.

Environmental precautions : Should not be released into the environment.

Methods for cleaning up : Soak up with inert absorbent material.
Sweep up and shovel into suitable containers for disposal.
Dispose of in accordance with local regulations.

SECTION 7. HANDLING AND STORAGE**Handling**

Handling : Wear personal protective equipment.
Avoid formation of aerosol.
Avoid inhalation of vapour or mist.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Storage

Requirements for storage areas and containers : Store in original container.
Keep containers tightly closed in a dry, cool and well-ventilated place.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective measures : Ensure that eyewash stations and safety showers are close to the workstation location.
Legal requirements are to be considered in regard of the selection, use and care of personal protective equipment.
Avoid contact with skin, eyes and clothing.

Hand protection : Latex gloves

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Gloves must be inspected prior to use.
Replace when worn.

- Skin and body protection : Protective suit
- Respiratory protection : In case of insufficient ventilation wear suitable respiratory equipment.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

Exposure Guidelines

| Components | CAS-No. | Value | Control parameters | Update | Basis |
|---------------------|---------|---|--------------------|------------|--|
| Glycerol | 56-81-5 | PEL : Permissible exposure limit | 5 mg/m3 | 02 2006 | OSHA_TRANS:US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) |
| Further information | : | Form of exposure : Respirable fraction. | | | |
| Glycerol | 56-81-5 | PEL : Permissible exposure limit | 15 mg/m3 | 02 2006 | OSHA_TRANS:US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) |
| Further information | : | Form of exposure : Total dust. | | | |
| Glycerol | 56-81-5 | TWA : Time weighted average | 5 mg/m3 | 1989 | Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000) |
| Further information | : | Form of exposure : Respirable fraction. | | | |
| Glycerol | 56-81-5 | TWA : Time weighted average | 10 mg/m3 | 1989 | Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000) |
| Further information | : | Form of exposure : Total dust. | | | |

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| Physical state | : liquid |
| Color | : colourless |
| Odor | : odourless |
| pH | : Note: neutral |
| Melting point/range | : 18 °C |
| Boiling point/boiling range | : 290 °C at 1,013 hPa |
| Flash point | : ca. 320 °F (160 °C) Method: closed cup |
| Lower explosion limit | : ca. 0.9 %(V) |
| Vapor pressure | : < 0.01 hPa at 20 °C(68 °F) |
| Density | : 1.26 g/cm ³ at 20 °C |
| Water solubility | : Note: completely miscible |
| Partition coefficient: n-octanol/water | : log Pow: -1.75 |
| Ignition temperature | : ca. 400 °C |
| Decomposition temperature | : Note: No decomposition if used as directed. |
| Viscosity, dynamic | : 1,300 mPa.s at 20 °C |
| Molecular weight | : 92.09 g/mol |

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SECTION 10. STABILITY AND REACTIVITY

| | |
|------------------------------------|---|
| Chemical stability | : Stable under normal conditions. |
| Possibility of hazardous reactions | : None known. Hazardous polymerisation does not occur. |
| Conditions to avoid | : Keep away from heat and sources of ignition. |
| Incompatible materials to avoid | : Strong oxidizing agents Strong acids Strong bases |
| Hazardous decomposition products | : Fire may cause evolution of: Acrolein carbon oxides (CO, CO ₂). |

SECTION 11. TOXICOLOGICAL INFORMATION

| | |
|---------------------------|---|
| Acute oral toxicity | : LD50: 27,200 mg/kg Species: Rat, female |
| Acute inhalation toxicity | : LC50: 4,655 mg/l , vapour Exposure time: 7 h Species: Rat, male |
| Acute dermal toxicity | : LD50: 56,750 mg/kg Species: Guinea pig, male and female |
| Skin irritation | : Species: Rabbit Result: No skin irritation |
| Eye irritation | : Species: Rabbit Result: slight irritation |
| Sensitisation | : Note: no data available |

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Genotoxicity in vitro : Note: In vitro tests did not show mutagenic effects

Carcinogenicity : Species: Rat, male and female
Application Route: Oral
Exposure time: two-year
Result : negative
Note: Did not show carcinogenic effects in animal experiments.

Reproductive toxicity : Test Method: Two-generation study
Species: Rat
Application Route: Oral exposure
Note: No toxicity to reproduction

Teratogenicity
Glycerol : Note: Did not show teratogenic effects in animal experiments.

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity effects**

Toxicity to fish : LC50: 54,000 mg/l
Exposure time: 96 h
Species: Oncorhynchus mykiss (rainbow trout)

Toxicity to daphnia and other aquatic invertebrates : EC50: > 10,000 mg/l
Exposure time: 24 h
Species: Daphnia magna (Water flea)

Toxicity to algae : ECx: > 10,000 mg/l
Exposure time: 8 d
Species: Scenedesmus quadricauda

Elimination information (persistence and degradability)

Biodegradability : Result: Readily biodegradable
Value: 94 %

Further information on ecology

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SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods : Observe all Federal, State, and Local Environmental regulations.

SECTION 14. TRANSPORT INFORMATION

DOT Not dangerous goods

TDG Not dangerous goods

IATA Not dangerous goods

IMDG Not dangerous goods

SECTION 15. REGULATORY INFORMATION**Inventories**

US. Toxic Substances Control Act : On TSCA Inventory

Australia. Industrial Chemical (Notification and Assessment) Act : On the inventory, or in compliance with the inventory

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL) : All components of this product are on the Canadian DSL

Japan. Kashin-Hou Law List : On the inventory, or in compliance with the inventory

Korea. Toxic Chemical Control Law (TCCL) List : On the inventory, or in compliance with the inventory

Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act : On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances : On the inventory, or in compliance with the inventory

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New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand : On the inventory, or in compliance with the inventory

National regulatory information

SARA 302 Components : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards : No SARA Hazards

California Prop. 65 : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Massachusetts RTK : Glycerol 56-81-5

New Jersey RTK : Glycerol 56-81-5

Pennsylvania RTK : Glycerol 56-81-5

SECTION 16. OTHER INFORMATION

| | HMIS III | NFPA |
|-----------------|-----------------|-------------|
| Health hazard | : 1 | 1 |
| Flammability | : 1 | 1 |
| Physical Hazard | : 0 | |
| Instability | : | 0 |

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

Further information

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The information provided in this Safety Data 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user. This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

Prepared by Honeywell Performance Materials and Technologies Product Stewardship Group