

1. Product and Company Identification

Product Name : Hydrojel OILPFKC Product Use: : Raw materials for personal care Manufacturer : KCI Limited. 9th FL IT Castle II, 137 Gasan digital 1-ro, Geumcheon-Ku, SEOUL, KOREA Phone: 82-2-855-3195 Fax: 82-2-784-9018 Emergency telephone number: 82-2-784-1480

2. Hazard Identification

GHS Classification :	Skin Corrosion/Irritation - Category 3
	Eye Damage/Irritation - Category 2B
○ Symbol : N/A	
O Signal word : Warning	9
\bigcirc Hazard statement :	
H316	Causes mild skin irritation
H320	Causes eye irritation
Prevention	
P264	Wash thoroughly after handling.
Response	
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes.
	Remove contact lenses, if present and easy to do. Continue
	rinsing.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention
Storage	
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P410	Protect from sunlight.
Disposal	
P501	Dispose of contents/container in accordance with local/
	regional/national/international regulations (to be specified).

3. Composition/Information on Ingredients



Ingredient(s)	CAS #	Percent (% w/w)
Glycerin	56-81-5	39-45
Water	7732-18-5	50-60
Other components	-	1-5

4. First Aid Measures

After eye contact

- Flush eyes with running water for at least 20 minutes while holding eyelids apart.
- If symptoms persist, call a physician.

After skin contact

- \bigcirc Wash with soap and running water for at least 20 minutes.
- If symptoms persist, call a physician.

After inhalation

- Move victim to fresh air and keep victim warm and quiet.
- Give artificial respiration if victim is not breathing.
- \bigcirc If needed, call a physician.

After swallowing

- \bigcirc Rinse mouth
- \bigcirc If needed, call a physician.
- \bigcirc Never give anything by mouth to an unconscious person.

Notes to physician

- It may not be advisable to induce vomiting.
- Measures against circulatory shock and convulsions may be necessary.

5. Fire Fighting Measures

Extinguishing media

- **Suitable extinguishing agents :** Use water spray to keep fire-exposed containers cool. **Unsuitable extinguishing agents :** No data
- Large Fires : Use water spray, dry chemical, carbon dioxide, or appropriate foam.
- Hazardous combustion products : Carbon oxides (COx)

Protection of firefighters

Specific hazards arising from the chemical : Combustion generates toxic fumes **Protective equipment for firefighters :**



Firefighters should wear self-contained breathing apparatus (SCBA).

General fire hazards

- Water or foam may cause frothing which can be violent and possibly endanger the life of the fire fighter.
- \bigcirc Water may be used to keep fire-exposed containers cool until fire is out.
- \bigcirc Minimize exposure
- \bigcirc Do not breathe fumes.

6. Accidental Release Measures

Clean up spills immediately. Remove all sources of ignition. Provide ventilation.

Personal precautions

- Use personal protective equipment.
- Wash off in clean water.

Environmental precautions

- Atmosphere : Use with adequate ventilation.
- \bigcirc Land : Collect the spill for later disposal.
- $\bigcirc\,$ Underwater : Prevent entry into waterway and sewers

Methods for cleaning up

- Collect as much as possible in a clean container for (preferable) reuse or disposal.
- Absorb spill with inert material (e.g. dry sand, sawdust or dust cloth), then place in a chemical waste container.

7. Handling and Storage

Safe Handling

- All handling equipment must be properly grounded.
- Open drums in well ventilated area.
- \bigcirc Avoid breathing vapors.
- \bigcirc Wash off in water after treatment.
- \bigcirc Wash clothing before reuse.

Safe Storage

- $\bigcirc\,$ Store in normal temperature and normal pressure
- $\bigcirc\,$ Keep container closed tightly when not in use.
- Empty container contains residual product which may exhibit hazards of product.
 Avoid prolonged exposure to heat and air.



- Keep away with Strong acids, Oxidizing agents..
- Keep away from heat and direct sunlight. Exposure to sunlight can decompose product.

8. Exposure Controls and Personal Protection

Engineering Controls : Use with local exhaust ventilation.

Exposure Limits : Glycerin mist TLV-TWA : 10 mg/m3 (ACGIH)

Glycerin Mist, total dust PEL : 15 mg/m3 (OSHA)

Glycerin Mist, respirable fraction PEL TWA : 5 mg/m3 (OSHA)

Glycerin Mist total PEL TWA : 10 mg/m3 (OSHA)

Personal Protective Equipment

Respiratory Protection: NIOSH/MSHA or European Standard EN 149 approved respirator if

exposure limits are exceeded or if irritation or other symptoms are experienced.

Eyes: Wear safety glasses with side shields.

Skin: Wearing chemical resistant gloves is recommended.

Clothing: Uniforms, coveralls, or a lab coat should be worn.

9. Physical and Chemical Information

Appearance	Low viscosity liquid.
Color	Colorless
Odor	Mild, characteristic
Odor threshold	Not determined
рН	5.0-6.0
Melting point/Freezing point	No data
Initial boiling point and Boiling range:	No data
Flashpoint	>100 ℃
Evaporation rate	No data
Flammability (solid, gas)	No data
Upper/lower flammability or explosive limits	No data
Vapor pressure	Negligible
Solubility	Complete soluble in water
Vapor density	No data
Relative Density	1.0-1.2 g/mL
Partition coefficient: n-octanol/water	No data



Auto-ignition temperature	No data
Decomposition temperature	No data
Viscosity	500 – 1,600
Molecular weight	No data

10. Stability and Reactivity

Stability : Stable under normal temperature and pressure.

Conditions to Avoid : Incompatible materials, ignition sources, excess heat.

Incompatible materials : Strong acids, Oxidizing agents

Hazardous decomposition products : Under normal conditions of storage and use,

hazardous decomposition products should not be produced.

11. Toxicological Information

	Glycerin
○ Acute toxicity (Oral)	Rat LD50=12600 mg/kg bw (IUCLID)
	Glycerin
○ Acute toxicity (Dermal)	Rabbit LD0>18700 mg/kg bw (IUCLID)
○ Acute toxicity (inhalation)	No data
	Glycerin
○ Skin corrosion/irritation	Rabbit/human, Slightly irritating (IUCLID)
	Glycerin
○ Serious eye damage/eye irritation	Rabbit, Slightly irritating GLP (IUCLID)
O Respiratory sensitization	No data
\bigcirc Skin sensitization	Glycerin
	Human, Patch test ; not sensitizing (IUCLID)
	Glycerin
 Carcinogenicity 	Mouse drinking water 5% solution ; The incidence
	of pulmonary tumors-bearing mice as well as the
	mean number of induced tumors per mouse were
	significantly enhanced in mice given glycerol for 4-
	25 weeks. (IUCLID)
	Rat oral 2yr exposure ; no increase in tumor
	incidence. (IUCLID)



○ Germ cell mutagenicity	<u>Glycerin</u> In vitro ; Ames test Salmonella Typhimurium negative GLP (IUCLID), CHO Sister chromatid exchange assay ; negative, Unscheduled DNA synthesis ; negative (IUCLID)
 Reproductive toxicity 	<u>Glycerin</u> Rat gavage Two generation study 200 mg/kg/day ; No effects were found on the reproductive efficiency of the parents, nor on the growth, fertility and reproductive performance of the untreated F1 generation, and no histological changes occurred in the tissues of both the F1 and F2 generation. (IUCLID)
 Specific target organ Toxicity (Single exposure) 	No data
 Specific target organ Toxicity (Repeated exposure) 	<u>Glycerin</u> Human oral feed 50days 1300-2200 mg glycerol/kg bw/day ; No overt signs of toxicity or effect on blood consumption and urine production. (IUCLID)
○ Aspiration	No data

12. Ecological Information

○ Toxicity	Glycerin
	Fish Oncorhynchus mykiss 96hr LC100=51000-
	57000 mg/L
	Fish Carassius auratus 24hr LC50>5000 mg/L
	Crustacea Daphnia magna 24hr EC50>10000
	mg/L (IUCLID)
○ Persistence and degradability	Glycerin
	Readily biodegradable (63%/14days) OECD 301C
	Logkow=-2.66~-2.47 calculated
O Bioaccumulative potential	No data
○ Mobility in soil	No data



○ Other adverse effects	No data
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13. Disposal Considerations

○ Incinerate or landfill waste in a properly permitted facility in accordance with federal, state and local regulations. Liquids cannot be disposed of in a landfill.

14. Transport Information

UN Number	: Not applicable
Proper Shipping Name	: Not applicable
Transport hazard class	: Not applicable
Packing group, if applicable	: Not applicable
Environmental hazards	: Not applicable
Special precautions for user	: Not applicable

15. Regulatory Information

Safety, health and environmental regulations specific for the product in question:

○ EU Regulation

- Directive 67/548/EEC : N/A
- Regulation (EC) No 1272/2008 and 1907/2006 : Complied
- ESIS : HPVCs (High Production Volume Chemicals): Glycerin

○ US Regulation

- Toxic Substances Control Act (TSCA) Inventory : All components of this product are registered
- OSHA Regulation (Standard-29 CFR) 1910.119 : not regulated
- CERCLA SARA Title III Section 313: Not regulated
- CERCLA SARA Title III Section 311: Not regulated
- CERCLA SARA Title III Section 304: Not regulated
- CERCLA SARA Title III Section 302: Not regulated

○ International Regulation

- INCI(International Nomenclature of Cosmetic Ingredients): <u>Glycerin</u> is classified as Denaturant, Humectant, Solvent, Perfuming
- International Council of Chemical Associations (ICCA) HPV Chemicals Programme
- : <u>Glycerin</u>



- OECD/High Production Volume (HPV) Chemicals Programme : Glycerin
- Rotterdam Convention: Not regulated
- Stockholm Convention on Persistent Organic Pollutants(POPs): Not regulated
- Montreal Protocol : Not regulated

16. Other Information

References

- \bigcirc National library of Medicine (NLM)
- ECB-ESIS (European chemical Substances Information System)
- \bigcirc e-Chemportal: The Global Portal to Information on Chemical Substances
- U.S. Environmental Protection Agency
- Emergency Response Guidebook (2008)
- International Council of Chemical Associations (ICCA)
- INCI(International Nomenclature of Cosmetic Ingredients)
- United Nations Environment Programme Ozone Secretariat

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