

SAFETY DATA SHEET
In accordance with UN GHS (7th rev.)

SECTION 01: Identification of the substance/mixture and of the company
1.1 Product identifier

Product Name UTF Gel (Imagel)

Other means of identification

Product Number UC-7355; R03-GEL1

1.2 Recommended use of the chemical and restrictions on use

Product Uses Sound conducting gel

Uses advised against Not known

1.3 Supplier's details

Tessonics Inc.
597 Ouellette Avenue
Windsor, Ontario
Canada, N9A 4J3
Tel.: +1-866-440-3313
Fax: +1-519-250-5747

1.4 Emergency phone number

In case of a chemical emergency, spill, fire, or exposure, calls Tessonics at +1-866-440-3313 (Mon-Fri 09:00-17:00 EST) or your regional Poison Information Service. National Poison Information Centres:
Canada 1-800-268-9017 US 1-800-222-1222

SECTION 02: Hazards Identification
2.1 Classification.

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200): Classification criteria are not met.

Globally Harmonised System (GHS): Classification criteria are not met.

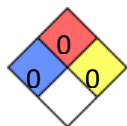
2.2 GHS Label elements
Label/ Pictogram/ Hazard statement/ Precautionary statement.

OSHA Hazard Communication Standard (29 CFR 1910.1200). Not required.

Storage phrases: Not required. Refer to Section 7 for Storage and Section 13 for Disposal information.

Manufacturer voluntarily places the following statements on the label to ensure customer safety.

Response phrases: P302+P305+P351 IF IN EYES OR ON SKIN: Rinse cautiously with water for several minutes.

NFPA
NFPA ratings (scale 0-4)


Health = 0
Flammability = 0
Reactivity = 0

2.3 Other hazards. Not identified. This product does not contain any PBT or vPvB substances.

SECTION 03: Composition /Information on ingredients

3.1 Substances Mixture. See 3.2.

3.2 Mixtures

Chemical Name:	Identifiers	Classification GHS / OSHA HazCom	Wt/Wt %
Glycerol, USP Kosher Synonyms: Glycerin, 1,2,3-propanetriol, 1,2,3-trihydroxypropan	CAS # 56-81-5 EC # 200-289-5	Not classified.	60-65

Other components: Components not listed here are not hazardous.

SECTION 04: First-Aid Measures

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4.1 Description of necessary measures

After inhalation	Move to fresh air. When symptoms persist, seek medical advice.
After skin contact	Wash with water and soap and rinse thoroughly. Rinse for several minutes under running water. If wearing contact lenses, remove them. If symptoms persist, consult a doctor.
After eye contact	
After ingestion	Remove material from the mouth. Drink plenty of water. Do NOT induce vomiting.

4.2 Most important symptoms/ effects, both acute and delayed

Skin	May cause mild irritation for sensitive skin.
Eyes	May cause mild eye irritation. Symptoms may include tearing, redness, and stinging sensation.
Ingestion	Nausea, vomiting, diarrhea. Unlikely to be harmful unless excessive amounts.
Long Term Exposure.	None.

4.3 Indication of immediate medical attention and special treatment needed.

The protection of first-aiders	Use personal protective equipment.
Note to physicians.	Treat symptomatically.

SECTION 05: Fire-fighting Measures

5.1 Extinguishing Media

Suitable extinguishing media	Water, foam, CO ₂ or dry powder.
Unsuitable extinguishing media	Not known.
Special protective equipment	Wear self-containing breathing apparatus and protective clothing if necessary.

5.2 Specific hazards arising from the chemical

Special Risks	Decomposes when the temperature rises. Upon combustion CO and CO ₂ and dense smoke are formed.
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5.3 Special protective equipment and precautions for fire-fighters

Special precautions for firefighters	Promptly isolate the scene by removing all persons from the vicinity of the incident.
Special protective equipment for firefighters	Wear appropriate protective equipment and self-contained breathing apparatus (SCBA).

SECTION 06: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Wipe up with absorbent material (e.g. cloth, fleece). Ventilate spillage area. Keep away from sources of ignition - No smoking.
For emergency responders	Do not attempt to take action without suitable protective equipment.

6.2 Environmental Precautions

Minimize contamination of drains, surface or ground waters. Dilute with water.

6.3 Methods and materials for containment and cleaning up

Absorb spillage onto inert material (e.g. sand or vermiculite). Transfer product to suitably labelled containers for disposal at approved sites. Residues and small spillages may be washed with water and detergent.
For hazardous combustion products: see section 5. For exposure control and individual protection measures, see section 8. For later elimination of waste, follow the recommendations under section 13.

SECTION 07: Handling and Storage

7.1 Precaution for safe handling

Maintain general industrial hygiene practices. Avoid contact with eyes. Wear eye protection and gloves (nitrile, latex/rubber, butyl, or neoprene) when handling material. Do not take internally. See Section 8 for Individual

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protective measures.

7.2 Conditions for safe storage, including any incompatibilities

Conditions for safe storage Store in a cool, dry area away from sources of heat, moisture, and incompatible substances. Keep the container tightly closed.

Incompatible substances and mixtures Strong oxidizing agents such as strong acids, Chromium Trioxide, Potassium Chlorate, or Potassium Permanganate.

SECTION 08: Exposure Controls/ Personal Protection

8.1 Control parameters

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Occupational exposure limit values(workplace exposure limits). Glycerol (56-81-5)

Country. Organization	Type	OEL value, mg/m ³	Form
USA/Canada. American Conference of Governmental Industrial Hygienists (ACGIH)/ Occupational Safety and Health Administration (OSHA). Permissible Exposure Limits (PEL)	TWA	15	Mist
Mexico (NOM-010-STPS-1999)	TWA	10	Fog

Relevant DNEL/ PNEC values

Relevant DNELs (glycerol)				
Endpoint	Threshold Level, mg/m ³	Protection goal, route of exposure	Used in	Exposure time
DNEL	56	human, inhalatory	worker (industry)	chronic - local effects

Environmental values (glycerol)

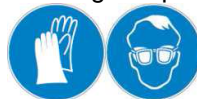
Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
PNEC	0.885 mg/l	aquatic organisms	freshwater	short-term (single instance)
PNEC	0.0885 mg/l	aquatic organisms	marine water	short-term (single instance)
PNEC	1,000 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
PNEC	3.3 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
PNEC	0.33 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
PNEC	0.141 mg/kg	terrestrial organisms	soil	short-term (single instance)
PNEC	8.85 mg/l	aquatic organisms	water	continuous

8.2 Appropriate engineering controls

Adequate ventilation should be provided.

8.3. Individual protective measures

Maintain general industrial hygiene practices when using this product. Gloves. Safety Glasses.



Eye/face protection

Safety glasses are recommended.

Skin protection

Handle with gloves (nitrile, latex/rubber, PVC, butyl, material thickness >0.11 mm). Chemical protection gloves are suitable, which are tested according to EN 374.

Other protective measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

In case of inadequate ventilation wear suitable respiratory protection.

8.3 Control of environmental exposure

Do not let product enter drains.

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SECTION 09: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical State	Gel
Color	Clear or light yellow
Odor	Odorless
Odor threshold	No data available.

Other safety parameters

pH	5.5-7
Freezing/melting point	Not available.
Boiling point	111.3°C
Flash point	>160°C (320°F) (glycerin) PMCC
Evaporation rate	No data available.
Flammability	Non-flammable.
Auto ignition temperature	370°C (698°F) (glycerin)
Decomposition temperature	Not available.

Explosive limits

Lower explosion limit (LEL)	No data available.
Upper explosion limit (UEL)	No data available.
Vapour pressure	553 mm Hg at 100°C.
Vapour density	Not available.
Specific density	1.16 at 25°C

Solubility

water	soluble
chloroform	insoluble

Partition coefficient	Not available.
Viscosity	Not available.

9.2 Other information

VOC content	<0.5% (5.5g/L)
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SECTION 10: Stability and Reactivity

10.1 Reactivity

The product is non-reactive under normal conditions.

10.2 Chemical stability

Stable under normal operational procedures.

10.3 Possibility to hazardous reactions

React with: Strong oxidizer. Peroxides. Nitric acid and nitrous acid.

10.4 Conditions to Avoid

Excessive heat. Strong acids, bases, strong oxidizing agents (chromium trioxide, or potassium permanganate).

10.5 Incompatible materials

Strong oxidizers.

10.6 Hazardous decomposition products

Carbon monoxide, dense smoke. Hazardous combustion products: see section 5.

SECTION 11: Toxicological Information

Classification procedure

The method for classification of the mixture is based on mixture ingredients (additivity formula).

Classification acc. to OSHA Hazard Communication Standard (29 CFR 1910.1200)

The product does not meet the criteria for classification.

Information on the likely routes of exposure

Ingestion	Unlikely to be harmful unless excessive amounts.
Skin contact	May cause skin irritation on sensitive skin
Eye contact	May irritate eyes

Symptoms related to the physical, chemical and toxicological characterization

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Skin	May cause mild irritation for sensitive skin.
Eyes	May cause mild eye irritation. Symptoms may include tearing, redness, swelling, and stinging sensation.
Ingestion	Nausea, vomiting, diarrhea if ingested in large quantities.
Long Term Exposure.	None.
Over-exposure signs/symptoms	No data available.

Delayed and immediate effects and also chronic effects from short and long term exposure

Acute toxicity	Not classified.
Skin irritation	May cause mild skin irritation on sensitive skin.
Eye damage	May irritate eyes.
Ingestion	If a large quantity has been ingested, may cause nausea and diarrhea.
Reproductive cell mutagenicity	No data available.
Reproductive toxicity	No data available.
Specific target organ toxicity.	No data available
Carcinogenicity	The components are not listed as carcinogens by the IARC, NTP, and OSHA-Ca.
Long term and Chronic effect	Negative (sensitization test, guinea pig)

Numerical measures of toxicity (glycerol, 56-81-5)

Acute oral toxicity:	LD ₅₀ >27200 mg/kg, rat
Acute dermal toxicity:	LD ₅₀ >56750 mg/kg, rabbit
Skin irritation, rabbit:	500 mg/24 hrs, No effect
Eye irritation, rabbit:	126 mg, mild irritation 24h

Additional toxicological information: If used and handled according to specifications, the product does not have any harmful effects according to the information provided to us.

SECTION 12: Ecological Information

12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

Aquatic toxicity

Mild water pollutant (surface water).
 WGK water hazard class – VwVwS: WGK 1 - low hazard to water

Harmful effect for aquatic organisms

Not harmful for fish, aquatic organisms, algae, bacteria (EC₅₀ >1000mg/L).

Ecotoxicity data (glycerol, 56-81-5):

Oncorhynchus mykiss (Rainbow trout) 96 hrs LC₅₀ =51000-57000 mg/L
 Daphnia magna 24hrs EC₅₀ >10000 mg/L

12.2 Persistence and degradability

Readily biodegradable. OECD 301D: 82%; 20 days.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.6 Other adverse effects

Not known.

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

Dispose in accordance with applicable local, state, and federal regulations. Do not dispose via drains. Small quantities can be disposed of with solid waste.

13.2 Contaminated packaging

Disposal in compliance with local official regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal.

13.3 Recommended cleansing agent

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Water, if necessary with cleansing agents.

13.4 Disposal method/information

Collect and reclaim or dispose in sealed containers at a licensed waste disposal site. Dispose of contents/container in accordance with local, regional, national, international regulations.

SECTION 14: Transportation Information

14.1 UN number.	Not dangerous goods.
14.2 UN proper shipping name.	Not relevant.
14.3 Transport hazard class.	Not dangerous goods.
14.4 Packing group.	Not dangerous goods.
14.5 Environmental hazards.	None (DOT, ADR, ADN, IMDG, IATA). Not identified as a marine pollutant.
14.7 Transport in bulk.	Not intended to be carried in bulk.
14.6 Special precautions for user	None.

SECTION 15: Regulatory Information

15.1 Safety, health and environmental regulations

Relevant provisions of the United States:

Toxic Substance Control Act (TSCA)

OSHA Hazard Communication Standard (29 CFR 1910.1200). Not classified.

Clean Water Act. 40 CFR 122.21 and 40 CFR 122.42. Not regulated.

Superfund Amendment and Reauthorization Act (SARA TITLE III)

The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304). Not listed.

Superfund SARA (40 CFR 355), Specific Toxic Chemical Listings (EPCRA Section 313). Not listed.

SARA 313 Act and Title 40 of the Code of Federal Regulations, Part 372. Not regulated.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4). Not listed.

Clean Air Act. Not listed.

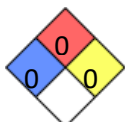
Chemical name	CAS#	HAPs data	VOC Chemicals	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Glycerin	56-81-5	-	SCAQMD M 313 Volatile* ASTM E1868 Non-Volatile* U.S. EPA M24 Semi-Volatile* EPA, CARB & OTC Non-Volatile* Green Seal Non-Volatile*	-	-

*Uyên-Uyên T. Võ, Michael P. Morris Non-Volatile, Semi-Volatile, or Volatile: Redefining Volatile for Volatile Organic Compounds, South Coast Air Quality Management District, <http://www.aqmd.gov>

State Regulations

Glycerol can be found in Pennsylvania, Minnesota, New Jersey and Massachusetts Right to Know Acts.

NFPA ratings (scale 0-4)



Health = 0
Flammability = 0
Reactivity = 0

National Inventories. TSCA. Listed (glycerol).

Relevant provisions of Canada:

HMIS rating (scale 0-4)

Health = 0

Fire = 0

Reactivity = 0

HEALTH	0
FIRE	0
REACTIVITY	0

Hazardous Product Act. Not controlled substance.

Domestic Substances List. Listed (Glycerol).

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Ingredient Disclosure List. Not listed.

Relevant provisions of Mexico:

NOM-018-STPS-2000: Glycerin (fog).
 PPE ID-E (Safety glasses, gloves and dust respirator).
 NOM-028-STPS-2012. Not listed.

International Inventories

TSCA, EINECS/ELINCS, ENCS, IECSC, PICCS, AICS. Listed

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out by the supplier for this mixture.

SECTION 16: Other Information

Date of issue:	April 16, 2009.
Date of revision:	Reason for revision:
January 10, 2015	Comply with GHS (5th edition)
June 20, 2015	Comply with CLP Regulation (EC) No 1272/2008.
April 10, 2017	Comply with GHS (6th ed.), Annex to Regulation (EU) 2015/830.
January 10, 2018	Comply with GHS (7th edition)
November 6, 2019	Updated to comply with 2012 OSHA HazCom (29 CFR 1910.1200).

Prepared by Tessonics Inc.

Key literature references and sources for data

Globally Harmonized System of Classification and Labelling of Chemicals (GHS) 7th ed.

Classification procedure

Physical and chemical properties: The classification is based on a tested mixture.
 Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

The submission of the MSDS may be required by law but this is not an assertion that the product is hazardous when used in accordance with proper safety practice and normal handling procedures. Data supplied are for use only in connection with occupational safety and health.

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. This information should not constitute a guarantee for any specific product properties. Tessonics Corporation assumes no responsibility for injury to the recipient or third person or for any damage to any property resulting from misuse of the product.

End of the SDS