



Material Safety Data Sheet

Section 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Identification of the substance or mixture

Product name : CLM Polymerase

Product Number : CMPF

Brand : Celemics

Recommended use of the chemical and restrictions on use

Identified uses : For research use only. Not for pharmaceutical, household or other uses

Details of the supplier of the safety data sheet

Company : Celemics. Inc.

19F, Bldg. A, BYC Highcity, 131, Gasandigital 1-ro, Geumcheon-gu, Seoul, 153-718, Korea

Telephone : +82-2-6746-8064

Fax : +82-2-6746-8073

E-mail address : Sales@celemics.com

Version : 3

Date of issue : 01/August/2022

Section 2. HAZARDS IDENTIFICATION

GHS - Classification

Signal word

None.

Hazard pictograms

None.

Hazard Statements

No information available.

Precautionary Statements

Prevention

No information available.

Response

No information available.

Storage

No information available.

Disposal

No information available.

Other hazards

No information available.

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS**Substances/Mixtures**

Ingredient name	Usual name	Cas No.	Amount (%)
Glycerol	-	56-81-5	< =50 < 60

There are no additional ingredients present which at their given concentration, are considered to be hazardous to health.

Section 4. FIRST AID MEASURES**Description of first aid measures****Skin contact**

Rinse with plenty of water. Immediate medical attention is not required.

Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion

Rinse mouth with water. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.

Inhalation

If breathed in, move person into fresh air. If not breathing, give artificial respiration or oxygen by trained personnel.

Most important symptoms and effects, both acute and delayed

No information available.

Indication of any immediate medical attention and special treatment needed

None.

Section 5. FIRE-FIGHTING MEASURES**Extinguishing media****Suitable extinguishing media**

Water spray. Carbon dioxide (CO₂). Foam. Dry chemical.

Unsuitable extinguishing media

No information available.

Specific hazards arising from the substance or mixture

Not known.

Advice for fire-fighters

Standard procedure for chemical fires.

Section 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.
 Always wear recommended Personal Protective Equipment.
 Use personal protection equipment.
 See section 8 for more detail.

Environmental precautions

No special environmental precautions required.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

See section 8 for more information.

Section 7. HANDLING AND STORAGE

Precautions for safe handling

Use personal protective equipment as required. No special handling advices are necessary.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers.

Specific end use(s)

For research use only.

Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Ingredient name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Glycerol	15 mg/m ³ 5 mg/m ³	-	-	-

Ingredient name	Brazil - OEL - TWAs (LTs)	Brazil - OEL - Ceilings	Brazil - OEL - Skin Designations
Glycerol	-	-	-

Engineering measures Ensure adequate ventilation, especially in confined areas.

Exposure controls

Personal protective Equipment

Respiratory protection

Respiratory protection not required. Use appropriate respirators and components according to known or anticipated exposure levels if a risk assessment indicates this is necessary.

Hand protection

Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.

Eye protection

Tight sealing safety goggles.

Skin and Body protection

Wear suitable protective clothing.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

No special environmental precautions required.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties**Appearance**

State	Liquid
Color	Colourless
Odour	No information available
Odour threshold	No information available
pH	7.1
Melting point/freezing point	-5°C
Initial boiling point and boiling range	105°C
Flash point	>90°C(closed cup)
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Upper/lower flammability or explosive limits	No information available
Vapour pressure	No information available
Vapour density	No information available
Relative density	No information available
Water solubility	No information available
Partition coefficient: n-octanol/ water	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

Section 10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No information available.

Conditions to avoid

No information available.

Incompatible products

Strong acids, strong bases, strong oxidizers.

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides, Hydrogen cyanide (hydrocyanic acid), Ammonia.

Other decomposition products - No information available.

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides.

Thermal decomposition

No information available.

Section 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Ingredient name	Oral LD50	Dermal LD50	Inhalation LC50
Glycerol	-	-)	-

Principal Routes of Exposure

Skin corrosion/irritation	No information available
Serious eye damage/irritation	No information available
Respiratory or skin sensitization	No information available
Specific target organ toxicity (STOT) - single exposure	No information available
Specific target organ toxicity (STOT) - repeated exposure	No information available
Carcinogenicity	No information available
Germ cell mutagenicity	No information available
Reproductive toxicity	No information available
Aspiration hazard	No information available

Section 12. ECOLOGICAL INFORMATION

Toxicity

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

Ingredient name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Microtox Data	log Pow
Glycerol	-	-	-	-	-

Mobility in soil	No information available
Persistence and degradability	No information available
Bioaccumulative potential	No information available
Results of PBT and vPvB assessment	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Other adverse effect	No information available

Section 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

Section 14. TRANSPORT INFORMATION

IATA/ADR/DOT-US/IMDG

Not classified as dangerous in the meaning of transport regulations.

UN number	No information available
------------------	--------------------------

UN proper shipping name No information available
Transport hazard class(es) No information available
Packing group No information available

Environmental hazards

No information available.

Special precautions for user

No information available.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available.

Section 15. REGULATORY INFORMATION

Component	US TSCA
Glycerol 56-81-5 (40 – 70)	Listed

Regulation under the Occupational Safety and Health Act

No information available.

Act on the Registration and Evaluation, etc. of Chemical Substances, Chemicals Control Act

No information available.

Dangerous Substances Safety Management Act

No information available.

Wastes Control Act

Follow article 13 of the act to dispose the product waste.

Regulations of other domestic and international Act

Domestic act

Persistent organic pollutants control Act

No information available

Foreign Act

American supervision information

No information applicable

CERCLA

No information applicable

EPCRA 302

No information applicable

EPCRA 304

No information applicable

EPCRA 313

No information applicable

American supervision information

No information applicable

(Rotterdam agreement material)

American supervision information

No information applicable

(Stockholm agreement material)

American supervision information

No information applicable

(Montreal protocol material)

US State Regulations

Ingredient name	Massachusetts - RTK (Right-to-Know)	New Jersey - RTK (Right-to-Know)	Pennsylvania - RTK (Right-to-Know)
Glycerol	Listed	Listed	Listed

EU Classification information

No information applicable

(Confirmed classification results)

EU Classification information No information applicable

(Danger expression)

EU Classification information No information applicable

(Safety expression)

National Regulations – Brazil

Ingredient name	CAS No.	Brazil - National Agency for Sanitary Surveillance (ANVISA)	Brazil - National List of Carcinogen Agents to Humans (LINACH)
Glycerol	56-81-5	Not Listed	Not Listed

Section 16. OTHER INFORMATION

Reason for revision SDS sections updated

Revision number 3

Revision date 01-Aug-2022

For research use only. Not for use in diagnostic procedures.

The information presented above is based on Celemics' state of knowledge at the time of preparation. The information shall not be taken as being all inclusive, and is to be used only as a guide. The information in this MSDS does not represent any guarantee of the properties or fitness for any particular purpose. Since personnel handling this material must make independent determinations of the actual methods and volume, Celemics, Inc. shall not be held liable for any damages resulting from handling or contact with this product.

End of Safety Data Sheet