SAFETY DATA SHEET

SDS No.1001-0284 Date August 4, 2021 1/4 page

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : TCEP(1,2,3-Tris(2-cyanoethoxy)propane) 0.1~40% Diatomaceous Earth

NAME OF SUPPLIER : GL Sciences Inc.

ADDRESS : 22-1 Nishishinjuku 6-chome Shinjuku-ku Tokyo 163-1130, Japan

CHARGE SECTION : International Sales Section

TELEPHONE No. : +81-3-5323-6620 FACSIMILE No. : +81-3-5323-6621

PRODUCT No. : 1001-45880, 1001-45881, 1001-, 1003-

SDS No. : 1001-0284

Research use only.

2. HAZARDS IDENTIFICATION

This product is the packing material using for such as chromatography analysis, researches and developments.

Although the column packed with is not dangerous goods, we show some data about this packing material for the information supplement below.

GHS CLASSIFICATION : Classification not possible

HAZARDS SYMBOL : - - - SIGNAL WORD : - - - HAZARD STATEMENTS : - - - PRECAUTIONARY STATEMENTS : - - -

OTHER INFORMATIONS : May be harmful if inhaled and ingested.

May cause eye and skin irritation.

Dispose of contents/container in accordance with all applicable regulations.

MOST IMPORTANT HAZARDS : Eye irritation, skin irritation, digestive tract irritation, respiratory tract irritation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE / MIXTURE : Mixture

COMMON CHEMICAL NAME : TCEP(1,2,3-Tris(2-cyanoethoxy)propane) $0.1\sim40\%$ Diatomaceous Earth

SYNONYMS : ---

CHEMICAL IDENTITY	CONTENT	CHEMICAL FORMULA	CAS RN	TSCA INVENTRY	EINECS No.
TCEP (1,2,3-Tris(2- cyanoethoxy)propane)	0.1~40%	C12H17N3O3	2465-93-2	Listed	219-573-5
Diatomaceous earth	60~99.9%	SiO2	68855-54-9	Listed	272-489-0

4. FIRST AID MEASURES

GENERAL ADVICE : If fragments/respirable dust contacts with eyes or skin, wash off immediately

with soap and plenty of water. In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit. Use personal protective equipment. If irritation persists, consult a physician.

INHALATION : Move victim to fresh air and gargle. If breathing is difficult, give oxygen.

If irritation persists, consult a physician.

SKIN CONTACT : Remove contaminated clothes and shoes, rinse skin with plenty of water or

shower. Use soap to help assure removal. If irritation persists, consult a

physician.

EYE CONTACT : Remove any contact lenses at once. Flush eyes well with flooding large amounts

of running water for at least 15 minutes. Assure adequate flushing by separating

the eyelids with sterile fingers. If irritation persists, consult a physician.

INGESTION : Rinse mouth, give plenty of water to vomit. Never give anything by mouth to an

unconscious person. Consult a physician.

MOST IMPORTANT SYMPTOMS AND EFFECTS

: Shreds and dusts may cause irritation of mucous membranes, respiratory tract, skin and eyes.

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SDS No.1001-0284 Date August 4, 2021 2/4 page

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA : This product is noncombustible.

FIRE & EXPLOSION HAZARDS : Toxic and irritating dust, fumes or smoke may be emitted.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS

: Fireman should wear normal protective equipment (full bunker gear) and

positive-pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS : Remove ignition sources and ventilate the area.

In case of insufficient ventilation, wear suitable respiratory equipment.

Avoid raising dust and avoid contact with skin and eyes.

ENVIRONMENTAL PRECAUTIONS: Prevent spills from entering sewers, watercourses or low areas.

METHODS FOR CLEANING UP : Do not touch spilled material without suitable protection. After material is

completely picked up, wash the spill site with soap and water and ventilate the area. Pull all wastes in a plastic bag for disposal and seal it tightly. Remove,

clean, or dispose contaminated clothing.

7. HANDLING AND STORAGE

HANDLING : Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated

exposure. Handle material with suitable protection.

After using this product, dispose of contents/container in accordance with all

applicable regulations and appropriate ways.

STORAGE : Store away from moisture and water in well-ventilated dry place.

Keep container tightly closed.

INCOMPATIBLE PRODUCTS : Water, moisture

8. EXPOSURE CONTROL/PERSONAL PROTECTION

ENGINEERING MEASURES : Use exhaust ventilation to keep airborne concentrations below exposure limits.

Use adequate ventilation.

VENTILATION : Local Exhaust; Necessary, Mechanical(General); Recommended

CONTROL PARAMETERS

CHEMICAL NAME	ACGIH	OSHA Final Limits	NIOSH REL	
TCEP (1,2,3-Tris(2-cyanoethoxy)propane)		Not established		
Diatomaceous earth				

PERSONAL PROTECTION

RESPRATORY PROTECTION : Safety mask

HAND PROTECTION : Chemical resistant gloves
EYE PROTECTION : Safety glasses(goggles)
SKIN PROTECTION : Protective clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE : Solid

COLOUR : White powder ODOUR : Odorless

MELTING POINT / FREEZING POINT

: No data available

BOILING POINT OR INITIAL BOILING POINT AND BOILING RANGE

No data availableNo data available

LOWER AND UPPER EXPLOSION LIMIT / FLAMMABILITY LIMIT

: No data available

FLASH POINT : No data available AUTO-IGNITION TEMPERATURE : No data available

DECOMPOSITION TEMPERATURE

FLAMMABILITY

: No data available

pH : No data available

SDS No.1001-0284 Date August 4, 2021 3/4 page

KINEMATIC VISCOSITY : Not applicable SOLUBILITY : Insoluble

PARTITION COEFFICIENT

n-octanol/water (log value) : No data available VAPOUR PRESSURE : No data available

DENSITY AND/OR RELATIVE DENSITY

: No data available

RELATIVE VAPOUR DENSITY : Not applicable PARTICLE CHARACTERISTICS : $80/100\sim60/80$ mesh

10. STABILITY AND REACTIVITY

REACTIVITY : It is easy to absorb moisture in the air, and carbon dioxide.

CHEMICAL STABILITY : Stable under recommended storage conditions. CONDITION TO AVOID : Sunlight, heat, moisture, CO2, oxidizers, acids

INCOMPATIBLE MATERIALS : Strong oxidizers and strong acids

HAZARDOUS DECOMPOSITION PRODUCTS

CO, CO2, silicone oxides

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY : No data available SKIN CORROSION/IRRITATION : No data available EYE DAMAGE/EYE IRRITATION : No data available

RESPIRATORY OR SKIN SENSITIZATION

No data available

GERM CELL MUTAGENICITY : No data available CARCINOGENICITY : No data available REPRODUCTIVE TOXICITY : No data available

SPECIFIC TARGET ORGAN TOXICITY

: No data available

ASPIRATION TOXICITY : No data available

12. ECOLOGICAL INFORMATION

ECOTOXICITY : No data available BIODEGRADABILITY : No data available BIOACCUMULATION POTENTIAL : No data available MOBILITY IN SOIL : No data available

OTHER ADVERSE EFFECTS : Not listed in Montreal Protocol list.

13. DISPOSAL INFORMATION

Dispose in a hazardous-waste site in accordance with all applicable regulations. Any disposal practice must be in compliance with country, local, state, and federal laws and regulations (contact country, local or state environment agency for specific rules).

14. TRANSPORT INFORMATION

International Regulations

Maritime regulations : Conform to the provisions of IMO.

UN No. : 3439

Proper Shipping Name: NITRILES, TOXIC, SOLID, (TCEP)

Class : 6.1 Packing Group : III

Marine Pollutant : Not applicable

Aviation regulations : Conform to the provisions of ICAO/IATA.

UN No. : 3439

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SDS No.1001-0284 Date August 4, 2021 4/4 page

15. REGULATORY INFORMATION

For classification and labeling of chemicals in accordance with the applicable rules and regulations in the EU or each country, refer to GHS classification of this product (See Section 2).

US REGULATION : OSHA HCS 2012/29 CFR 1910.1200 EU REGULATION : CLP Regulation ((EC) No. 1272/2008)

16. OTHER INFORMATION

NOTICE:

The information contained in the SDS description is applicable exclusively to the chemical substance identified herein and for its intended use as an analytical reference standard or reagent and to the unit quantity intended for that purpose. The information does not relate to, and may not be appropriate for, any application or larger quantity of the substance described. Our products are intended for the use by individuals possessing sufficient technical skill and qualification on use the material potential hazardous chemical. Accordingly, no representation or warranty, express or implied, with respect to merchantability and fitness for a particular purpose is made with respect to the information contained herein.

Attention:

This product in terms of chemical identity and the unit amount provide is intended for use in chemical analysis and not for human consumption, nor any other purpose.