

# SAFETY DATA SHEET

SDS No.5010-0207

Revised date

April 2, 2024

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## 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : InertSep K-solute Plus  
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. : 5010-68250, 5010-68251, 5010-68252, 5010-68253, 5010-68254, 5010-69200, 5010-  
SDS No. : 5010-0207  
Research use only.

## 2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION : Carcinogenicity : Category 1A  
Specific target organ toxicity (Repeated exposure) : Category 1 (Respiratory organs)

HAZARDS SYMBOL :



SIGNAL WORD : Danger

HAZARD STATEMENTS :

H350 : May cause cancer  
H372 : Cause damage to organs through prolonged or repeated exposure

PRECAUTIONARY STATEMENTS :

P201 : Obtain special instructions before use.  
P202 : Do not handle until all safety precautions have been read and understood.  
P260 : Do not breathe dust/fume/gas/mist/vapours/spray.  
P264 : Wash hands thoroughly after handling.  
P270 : Do not eat, drink or smoke when using this product.  
P280 : Wear protective gloves/protective clothing/eye protection/face protection.  
P308+P313 : IF exposed or concerned: Get medical attention.  
P314 : Get medical attention if you feel unwell.  
P405 : Store locked up.  
P501 : Dispose of contents/container in accordance with all applicable regulations.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE/MIXTURE : Substance  
CHEMICAL NAME : Diatomaceous earth  
SYNONYMS : Kieselguhr, soda ash flux-calcined  
CHEMICAL FORMULA : - - -  
MOLECULAR WEIGHT : - - -  
CONTENT : - - -  
CAS RN : 68855-54-9  
TSCA INVENTORY : Listed  
EINECS No. : 272-489-0  
EC INDEX No. : Not established

## 4. FIRST AID MEASURES

GENERAL ADVICE : 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.  
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.

5. FIRE FIGHTING MEASURES

- EXTINGUISHING MEDIA : Carbon dioxide, dry chemical powder, foam, water spray
- FIRE & EXPLOSION HAZARDS : CO<sub>2</sub>, CO are included in a flue gas. Use cylinder-type air respiratory apparatus at the fire extinguishing in the room.  
Pay attention to shatter-resistant this product.
- 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.  
Comply with local disposal regulations.
- 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 this product with appropriate protective equipments.
- STORAGE : Store away from sunlight in a cool well-ventilated dry place.  
Keep container tightly closed.
- INCOMPATIBLE PRODUCTS : Oxidizers and acids

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
  - ACGIH TLV : Not established
  - OSHA PEL : Not established
  - NIOSH REL : Not established
- PERSONAL PROTECTION
  - RESPIRATORY PROTECTION : Half or full face piece respirator, self-contained breathing apparatus, supplied air respirator, etc. Use respirators approved under appropriate government standards and follow all regulations.
  - HAND PROTECTION : Safety gloves
  - EYE PROTECTION : Safety glasses(goggles)
  - SKIN PROTECTION : Protective clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

- APPEARANCE : White to light brown or light gray powder
- PHYSICAL STATE : Solid
- ODOR : Odorless
- MELTING POINT / FREEZING POINT : 1,400 °C
- BOILING POINT OR INITIAL BOILING POINT AND BOILING RANGE : No data available
- FLAMMABILITY : No 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

: No data available

pH : No data available

KINEMATIC VISCOSITY : Not applicable

## SOLUBILITY IN

Water : Insoluble

Organic solvent : 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 : No data available

## 10. STABILITY AND REACTIVITY

REACTIVITY : Stable under recommended using and storage conditions.

CHEMICAL STABILITY : Stable under recommended storage and using conditions.  
May be altered by light.

CONDITION TO AVOID : Sunlight, heat, moisture, dust diffusion.

INCOMPATIBLE MATERIALS : Strong oxidizing agents, strong acids.

## HAZARDOUS DECOMPOSITION PRODUCTS

: Hazardous fumes, etc.

## 11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY : No data available

SKIN CORROSION/IRRITATION : No data available

EYE DAMAGE/EYE IRRITATION : Painful when it enters the eye.

SENSITIZATION : No data available

GERM CELL MUTAGENICITY : No data available

CARCINOGENICITY : Crystalline silica is classified as Group 1 by IARC (IARC 100C (2012)), as K by NTP (NTP RoC (14th, 2016)), as Group 1 by the Japan Society for Occupational Health (Recommendation on Tolerable Concentrations (2016)), and as Category 1A. This substance is classified as class 1A because it contains more than the cutoff value (0.1%) of carcinogenic class 1 crystalline silica, which is class 1A.

There is no information on the carcinogenicity of diatomaceous earth in humans, and in experimental animals, no tumors were observed in a lifetime exposure study in rats by oral (mixed-food) route at a dose of 20 mg/animal and in mice by subcutaneous injection (dose frequency not stated) at 20 mg/animal (IARC 68 (1997)). (IARC 68 (1997)). On the other hand, in a study in which mice were injected intraperitoneally at 20 mg/animal (number of doses not stated), lymphosarcoma was reported to have occurred in 6/17 mice, showing a significant increase compared to the control group (1/20 mice). However, none of the study reports stated the amount of crystalline silica in the test substance (diatomaceous earth), so the presence or absence of crystalline silica is not known (IARC 68 (1997)).

REPRODUCTIVE TOXICITY : No data available

SPECIFIC TARGET ORGAN TOXICITY -single exposure-

: No data available

**SPECIFIC TARGET ORGAN TOXICITY -repeated exposure-**

: As for humans, there have been reports of dust lung disease in workers exposed to diatomaceous earth, but it has not been determined that the dust lung disease was caused by diatomaceous earth because exposure to other quartz dust is unknown, cristobalite is produced when diatomaceous earth is calcined, and crystalline silica is present in diatomaceous earth (DFGOT vol. 2 (1991)), and only mild silicosis has been reported in workers exposed to diatomaceous earth exposed to unburned dust (ACGIH (7th, 2001)). Studies of workers exposed to crude diatomaceous earth or natural dust for 20 to 25 years have also shown that lung fibrosis rarely occurs, and if it does, it is symptomatic and not clearly disabling. It has been reported that natural diatomaceous earth itself is weakly fibrogenic or non-fibrogenic and that lung fibrosis may be due to crystalline silica or lung overload (ACGIH (7th, 2001)).

In experimental animals, guinea pigs were exposed to 100 mg/m<sup>3</sup> of diatomaceous earth as amorphous silica and 150 mg/m<sup>3</sup> of cristobalite as crystalline silica by inhalation for 2 years. Diatomaceous earth, an amorphous silica, showed fibrosis at 24 months, but no serious effects were observed (ACGIH (7th, 2001)). In a study of guinea pigs exposed by inhalation to 60 mg/m<sup>3</sup> of unfired diatomaceous earth for 37-50 weeks, macrophage infiltration, thickening of the alveolar septum due to accumulation of numerous polynuclear cells containing dust particles, and alveolar epithelialization were observed, but no lung fibrosis and a very slight increase in the amount of microvilli fibers was observed. However, there was no lung fibrosis and no significant increase in collagen fibers (ACGIH (7th, 2001)).

**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**

**IATA** : Not dangerous goods

**ADR/RID** : Not dangerous goods

**DOT(Department of Transportation)** : Not dangerous goods

**MARINE POLLUTANT** : Not classified

**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.