

# SAFETY DATA SHEET

SDS No.1050-24004

Revised Date January 25, 2016 1/4 page

## 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : 10% Silver Nitrate-impregnated Silica Gel  
NAME OF MANUFACTURER : 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. : 1050-24004  
SDS No. : 1050-24004  
Research use only.

## 2. HAZARDS IDENTIFICATION

GHS CLACCIFICATION : Skin corrosion/irritation : Category 1  
Serious eye damage/eye irritation : Category 1  
Reproductive toxicity : Category 2  
Specific target organ toxicity -single exposure : Category 1 <blood system>  
Specific target organ toxicity - repeated exposure : Category 1<lungs, kidney, vascular system>  
Hazardous to the aquatic environment - Acute hazard : Category 2  
Hazardous to the aquatic environment - Chronic hazard : Category 2

HAZARDS SYMBOL :



SIGNAL WORD : Danger

HAZARD STATEMENTS :

H314 Causes severe skin burns and eye damage  
H318 Causes serious eye damage  
H361 Suspected of damaging fertility or the unborn child  
H370 Causes damage to organs  
H372 Causes damage to organs through prolonged or repeated exposure  
H401 Toxic to aquatic life  
H411 Toxic to aquatic life with long lasting effects

PRECAUTIONARY STATEMENTS :

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.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P308+P311 IF exposed or concerned: Call a POISON CENTER/doctor.  
P314 Get medical advice/attention if you feel unwell.  
P363 Wash contaminated clothing before use.  
P391 Collect spillage.

P405 Store locked up.  
 P501 Dispose of contents/container at a disposal facility in accordance with local regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL IDENTITY : 10% Silver Nitrate-impregnated Silica Gel  
 SYNONYMS : - - -  
 CHEMICAL FOMULA : Mixture

CHEMICAL IDENTITY	CONTENT	CHEMICAL FOMULA	CAS No.	TSCA INVENTORY	EINECS No.	EC INDEX No.
Silica gel	90 %	SiO <sub>2</sub>	7631-86-9	Listed	231-545-4	Not listed
Silver Nitrate	10 %	HNO <sub>3</sub>	7761-88-8	Listed	231-853-9	047-001-00-2

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. 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. 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. Consult a physician.  
 INGESTION : Rinse mouth, give plenty of water to dilute the substance. Do not induce vomiting. Never give anything by mouth to unconscious person. Consult a physician.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA : Flood with water.  
 FIRE & EXPLOSION HAZARDS : Toxic, irritating, dust or smoke may be emitted.  
 SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS : Fireman should wear appropriate 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.  
 ENVIROMENTAL PRECATIONS : Prevent entering dusts to environment.  
 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 well-ventilated dry place.  
 INCOMOPATIBLE PRODUCTS : Strong acids, oxidizers. Hydrogen fluoride.

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  
 PERSONAL PROTECTION  
 Respiratory protection : NIOSH/MSHA or European Standard EN149 approved respirator  
 HAND PROTECTION : Chemical resistant gloves  
 EYE PROTECTION : Safety glasses(goggles)  
 SKIN PROTECTION : Protective clothing

CONTROL PARAMETERS

CONTENT	ACGIH TLV	OSHA PEL	NIOSH REL
Silica gel	3mg/m <sup>3</sup> (as other respirable dust)	80 mg/m <sup>3</sup> /%SiO(2)+2 (as amorphous silica)	6 mg/m <sup>3</sup> (as amorphous silica)
Silver Nitrate	0.01mg/m <sup>3</sup> (as Ag)	0.01mg/m <sup>3</sup> (as Ag)	0.01mg/m <sup>3</sup> (as Ag)

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE : white to light white grayish  
 SHAPE : Powder  
 ODOR : Odorless  
 pH : No data available  
 BOILING POINT : No data available  
 MELTING POINT : No data available  
 FLASH POINT : No data available  
 FLAMMABILITY : No data available  
 AUTOIGNITION TEMPERATURE : No data available  
 VAPOR PRESSURE : No data available  
 SPACIFIC GRAVITY (DENSITY) : No data available  
 SOLUBILITY IN  
     Water : insoluble  
     Organic solvent : insoluble

10. STABILITY AND REACTIVITY

REACTIVITY : Stable under recommended condition  
 CHRMICAL STABILITY :  
 CONDITION TO AVOID : Sunlight, heat, moisture  
 INCOMPATIBLE MATERIALS : Strong acids, oxidizers. Hydrogen fluoride.  
 HAZARDOUS DECOMPOSITION PRODUCTS : Silicon compounds, nitrogen compounds

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY : This product is not classified. (LC50=11,764 mg/L, calculated value)  
 SKIN CORROSION/IRRITATION : (Silver nitrate) Skin; marmot; may cause skin corrosive (CERI hazard data 2001-57,2002)  
 EYE DAMAGE/EYE IRRITATION : (Silver nitrate) Eye; rabbit; moderate to strong irritation (CERI hazard data 2001-57,2002)  
 SENSITIZATION : No data available  
 GERM CELL MUTAGENICITY : Lack of data  
 CARCINOGENICITY : Lack of data  
 REPRODUCTIVE TOXICITY : (Silver nitrate) damage to testicle.(IUCLID,2000)  
 SPECIFIC TARGET ORGAN TOXICITY -single exposure- : respiratory irritation, effect to blood system (PATTY(4th,2000), ICSC(J)(1998), CERI hazard data 2001-57(2002)).  
 SPECIFIC TARGET ORGAN TOXICITY -repeated exposure- : effect to respiratory system, kidneys and cardiovascular system (CERI hazard data 2001-57,2002).  
 ASPIRATION TOXICITY : No data available

---

**12. ECOLOGICAL INFORMATION**

- Hazardous to the aquatic environment - Acute hazard  
: Crustacean; Daphnia magna, EC50=0.0006 mg/L/48h (CERI hazard data,2002)
- Hazardous to the aquatic environment - Chronic hazard  
: Silver compound is a metal compound and its behavior under water is unclear. BCF=600.
- BIODEGRADABILITY : No data available
- BIOACCUMULATION POTENTIAL : There is a bioaccumulation with Silver nitrate (BCF=600).
- MOBILITY IN SOIL : No data available
- OZONE LAYER EFFECTS : These components are not listed in Montreal Protocol.
- 

**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
- UN NUMBER : 3260
- UN PROPER SHIPPING NAME : Corrosive solid, acidic, inorganic, N.O.S (silver nitrate-impregnated silica gel)
- CLASS or DIVISION : Class 8, corrosive solid
- PACKING GROUP : III
- ADR/RID : 3260, Corrosive Solids
- DOT : 3260, Corrosive Solids
- MARINE POLLUTANT : No
- 

**15. REGULATORY INFORMATION**

- US REGULATIONS : Labeling according to EC Directives; See section 2
- EU REGULATIONS : Labeling according to EC Directives; See section 2
- 

**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.