

# SAFETY DATA SHEET

SDS No.3001-17111

Date

November 11, 2015 1/3 page

## 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : Cobalt Free Silica Gel Air Dryer  
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. : 3001-17111  
SDS No. : 3001-17111

Research use only.

## 2. HAZARDS IDENTIFICATION

This product is the Air Dryer packed with a Silica gel include "Dichloro tetraphenylporphyrinato phosphorous(V) chloride "as the indicator. Although this product 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

CHEMICAL IDENTITY : Cobalt Free Silica Gel Air Dryer

CHEMICAL NAME	CONTENT	CHEMICAL FORMULA	CAS No.	TSCA INVENTORY	EINECS No.	EC INDEX No.
Silica gel	> 99 %	SiO <sub>2</sub>	7631-86-9	Listed	231-545-5	Not established
Dichlorophosphorous tetraphenylporphyrin chloride	≤ 0.1 %	C <sub>44</sub> H <sub>28</sub> Cl <sub>3</sub> N <sub>4</sub> P	84896-72-0	Not listed	Not established	Not established
Calcium chloride	≤ 0.1 %	CaCl <sub>2</sub>	10043-52-4	Listed	233-140-8	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 : 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 this product with appropriate protective equipments.
- STORAGE : Store away from sunlight in well-ventilated dry place at room temperature.  
Keep container tightly closed.
- INCOMPATIBLE PRODUCTS : Strong oxidizers and strong 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
- PERSONAL PROTECTION
  - RESPIRATORY PROTECTION : Safety mask
  - HAND PROTECTION : Safety gloves
  - EYE PROTECTION : Safety glasses(goggles)
  - SKIN PROTECTION : Protective clothing

CONTROL PARAMETERS

CHEMICAL NAME	ACGIH TLV	OSHA PEL	NIOSH REL
Silica gel	respirable dust 10mg/m <sup>3</sup>	80 mg/m <sup>3</sup> /%SiO <sub>2</sub> +2 (as amorphous silica)	TWA=6mg/m <sup>3</sup> (as amorphous silica)
Dichlorophosphorous tetraphenylporphyrin chloride	Not established		
Calcium chloride			

9. PHYSICAL AND CHEMICAL PROPERTIES

- APPEARANCE : Green and Clear
- SHAPE : Solid (pellet)
- ODOR : Odorless
- pH : No data available
- BOILING POINT : 2230 degrees C
- MELTING POINT : 1610 degrees C
- FLASH POINT : Non combustible
- FLAMMABILITY : No data available
- AUTOIGNITION TEMPERATURE : No data available
- VAPOR PRESSURE : No data available
- SPECIFIC GRAVITY (DENSITY) : 2.2
- SOLUBILITY IN
  - Water : Insoluble
  - Organic solvent : Insoluble
  - Strong base : Soluble

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PARTITION COEFFICIENT ; n-octanol/water  
: Not available

DECOMPOSITION TEMPERATURE  
: Not available

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**10. STABILITY AND REACTIVITY**

REACTIVITY : It is easy to absorb moisture in the air. React with HF and oxidizers.

CHEMICAL STABILITY : Stable under recommended storage conditions.

CONDITION TO AVOID : Sunlight, heat, moisture, CO<sub>2</sub>, oxidizers, acids

INCOMPATIBLE MATERIALS : Strong oxidizers and strong acids, HF.

HAZARDOUS DECOMPOSITION PRODUCTS  
: Chlorine gas

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**11. TOXICOLOGICAL INFORMATION**

We evaluate as "Classification not possible" due to this product includes 2 substances less than 0.1% concentration except for silica gel.

We only show toxicological information regarding "Silica gel" below.

ACUTE TOXICITY -oral- : rat: LD50=5000mg/kg(IUCLID,2000)

SKIN CORROSION/IRRITATION : rabbit: not irritating(IUCLID,2000)

EYE DAMAGE/EYE IRRITATION : human: slightly irritating(IUCLID,2000)

RESPIRATORY OR SKIN SENSITIZATION  
: No data available

GERM CELL MUTAGENICITY : mouse: in vivo, negative(JJFC,2003)

CARCINOGENICITY : Group 3(IARC)

REPRODUCTIVE TOXICITY : No data available

SPECIFIC TARGET ORGAN TOXICITY  
: No data available

ASPIRATION TOXICITY : No data available

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**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.

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**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).

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**14. TRANSPORT INFORMATION**

IATA : Not dangerous goods

ADR/RID : Not dangerous goods

DOT(Department of Transportation) : Not dangerous goods

MARINE POLLUTANT : Not classified

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**15. REGULATORY INFORMATION**

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

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

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**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.