SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Inertsil Ph-3
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.: 5020-01920~5020-01933, 5020-03266~5020-03667, 5020-04166~5020-04867,
5020-05016~5020-05167, 5020-09540~5020-09623, 5020-11516~5020-11867, 5020-13610~5020-13622,
5020-14041~5020-14049, 5020-14111~5020-14119, 5020-15016~5020-15567, 5020-15716~5020-15967,
5020-19016~5020-20398, 5020-40040~5020-40053, 5020-41061~5020-41072,
5020-79036~5020-79040, 5020-85011~5020-85187, 5020-
SDS No.: 5020-0036
Research use only.

2. HAZARDS IDENTIFICATION

Inertsil Ph-3 is the article using for such as chromatography analysis, research and development. Packing material will not leak from column under usual using conditions. We show the information about packing materials below.

GHS CLASSIFICATION:
Serious eye damage/eye irritation: Category 2B
Specific target organ toxicity (single exposure): Category 3
(Respiratory tract irritancy)

HAZARDS SYMBOL:

SIGNAL WORD: Warning

HAZARD STATEMENTS:
H320 Cause eye irritation
H335 May cause respiratory irritation

PRECAUTIONARY STATEMENTS:
[Prevention]
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.

[Response]
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical attention.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTER or doctor if you feel unwell.

[Storage]
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

[Disposal]
P501 Dispose of contents/container in accordance with all applicable regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE / MIXTURE: Substance
CHEMICAL IDENTITY: Phenyl group modified silica gel
CHEMICAL FORMULA: (SiO2)-C6H5
CONTENT: 100%
CAS RN: 112926-00-8
TSCA INVENTORY: Not Listed
EINECS No.: Not Listed
4. FIRST AID MEASURES

GENERAL ADVICE: Wash off 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, or wipe off cleansing cream with coating, tender cloth. 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. If feel unwell, consult a physician.

MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED: May cause irritation of mucous membranes, respiratory tract, skin and eyes.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Carbon dioxide, dry chemical powder, foam, water spray

FIRE & EXPLOSION HAZARDS: CO2, CO are included in a flue gas. Use cylinder-type air respiratory apparatus at the fire extinguishing in the room.

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. Pick all wastes up 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 equipment.

STORAGE: Store away from sunlight in a cool well-ventilated dry place. Keep container tightly closed.

INCOMPATIBLE PRODUCTS: Oxidizers, strong acids, bases

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: Inhalable particles; TWA 10mg/m³, Respirable particles; TWA 3mg/m³ (as PNOS)

OSHA PEL: TWA 20mppcf (80mg/m³%SiO2) (as amorphous silica)

NIOSH REL: TWA 6mg/m³ (as amorphous silica)

PERSONAL PROTECTION

RESPIRATORY PROTECTION: Safety mask, 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

PHYSICAL STATE: Solid (powder)
COLOUR: White
ODOUR: Odourless

MELTING POINT / FREEZING POINT: No data available
BOILING POINT OR INITIAL BOILING POINT AND BOILING RANGE: No data available
FLAMMABILITY: Non Flammable
LOWER AND UPPER EXPLOSION LIMIT / FLAMMABILITY LIMIT: Not applicable
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: No data available
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: Spherical, <10µm

10. STABILITY AND REACTIVITY

REACTIVITY: Stable under recommended using and storage conditions.
CHEMICAL STABILITY: Stable under recommended using and storage conditions.
CONDITION TO AVOID: Sunlight, heat, moisture, CO₂, oxidizers, acids, alkalis
INCOMPATIBLE MATERIALS: Oxidizers, strong acids, bases
HAZARDOUS DECOMPOSITION PRODUCTS: CO, CO₂

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY -oral-: Rat; LD₅₀ >5,000mg/kg (Precipitated silica(Tixosil53)), >5,110mg/kg (Precipitated silica(Sident9)) (SIDS(2006), ECETOC JACC(2006))
ACUTE TOXICITY -dermal-: Rabbit; LD₅₀ >2,000mg/kg (Silica gel(Syloid244)), >5,000mg/kg (Silica gel (ZEO49, ZEOSYL113, ZEOSYL200, ZEOFREE153)) (SIDS(2006), ECETOC JACC(2006))
ACUTE TOXICITY -inhalation-: No data available
SKIN CORROSION/IRRITATION: No irritation in skin irritation tests (OECD TG 404, Precipitated silica(Sident9)) using rabbits (SIDS(2006), ECETOC JACC(2006)).
EYE DAMAGE/EYE IRRITATION: Mild conjunctival redness in eye irritation tests (OECD TG 405, Precipitated silica(Sident9)) using rabbits (SIDS(2006), ECETOC JACC(2006)).
SENSITIZATION: No data available
GERM CELL MUTAGENICITY: No data available
CARCINOGENICITY: There is no information on carcinogenicity to humans. The evidence of carcinogenicity is inadequate in humans and experimental animals. Therefore, the substance is classified as Group 3 by IARC (IARC 68,1997).
REPRODUCTIVE TOXICITY: There is no information on reproductive toxicity to humans.
SPECIFIC TARGET ORGAN TOXICITY - single exposure -: Irritating to respiratory tract (SIDS(2006), ECETOC JACC(2006)).
SPECIFIC TARGET ORGAN TOXICITY - repeated exposure -
   : No adverse effects were seen in lung function and chest radiography of workers exposed to dust of this substance for an average of 8.5 years (ACGIH(7th,2001), ECETOC JACC(2006), SIDS(2006), DFGOT vol.2(1991)).

ASPIRATION HAZARD : No data available

12. ECOLOGICAL INFORMATION
   Hazardous to the aquatic environment - Acute hazard –
   : Crustacea(Daphnia magna); 24-hour EC50>1000 mg/L (SIDS(2006))
     Zebrafish(Danio rerio); 96-hour LC50=1000 mg/L (SIDS(2006))
   Hazardous to the aquatic environment - Chronic hazard –
   : No data available

BIODEGRADABILITY : May not occur microbial degradation

BIOACCUMULATIVE POTENTIAL : No data available

MOBILITY IN SOIL : No data available

HAZARDOUS TO THE OZONE LAYER : 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).
   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.