

SAFETY DATA SHEET

SDS No. 1050-24003

Revised date September 7, 2017

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1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : 44 % Sulfuric Acid-impregnated Silicagel
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. : 1050-24003
SDS No. : 1050-24003
Research use only.

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION : Acute toxicity - inhalation - : Category 3
Skin corrosion/irritation : Category 1
Eye damage/irritation : Category 1
Specific target organ toxicity (Single exposure)
: Category 1(respiratory tract system)
Specific target organ toxicity (Repeated exposure)
: Category 1(respiratory tract system)
Hazardous to the aquatic environment - Acute hazard
: Category 3

HAZARD SYMBOL :



SIGNAL WORD : Danger

HAZARD STATEMENTS :

H331 Toxic if inhaled
H314 Cause severe skin burns and eye damage
H318 Cause serious eye damage
H370 Cause damage to organs
H372 Cause damage to organs through prolonged or repeated exposure
H402 Harmful to aquatic life

PRECAUTIONARY STATEMENTS :

P260 Do not breathing dust.
P271 Use only outdoors or in a well-ventilated area.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P310 Immediately call a POISON CENTER or doctor.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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.
P363 Wash contaminated clothing before reuse.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P311 IF exposed or concerned: Call a POISON CENTER or doctor.
P405 Store locked up.
P501 Dispose of contents/container in accordance with all applicable regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL IDENTITY	CONTENT	CHEMICAL FORMULA	CAS No.	TSCA INVENTORY	EINECS No.	EC INDEX No.
Silicagel	56 %	SiO ₂	7631-86-9	Listed	231-545-4	Not established
Sulfuric Acid	44 %	H ₂ SO ₄	7664-93-9	Listed	231-639-5	016-020-00-8

4. FIRST AID MEASURES

- GENERAL ADVICE : Wash off immediately with soap and plenty of water. In the case of respirable dust, 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. 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. Never rub your eyes.
- INGESTION : Rinse mouth, give plenty of water to dilute the substance. Do not induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician.

5. FIRE FIGHTING MEASURES

- EXTINGUISHING MEDIA : Powder, foam (alcohol foam), carbon dioxide, water spray.
- DISABLED EXTINGUISHING MEDIA : Straight stream.
- FIRE & EXPLOSION HAZARDS : Toxic, irritating, fumes or smoke may be emitted.
- SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS : Firemen 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 CLEAN 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 : In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Handle this product with suitable protection. After using this product, dispose of contents/container in accordance with all applicable regulations and appropriate ways.
- STORAGE : Store away from sunlight, heat and all ignition sources in well-ventilated dry place. Keep container tightly closed.
- INCOMPATIBLE PRODUCTS : Strong oxidizers, acids, reductants

8. EXPOSURE CONTROL/PERSONAL PROTECTION

- ENGINEERING MEASURES : Use exhaust ventilation to keep airborne concentrations below exposure limits. Use only with adequate ventilation.
- VENTILATION : Local Exhaust ; Necessary, Mechanical(General) ; Recommended
- PERSONAL PROTECTION
- RESPIRATORY PROTECTION : Safety mask(Use respirators approved under appropriate government standards and follow all regulations.)
- HAND PROTECTION : Protective gloves
- EYE PROTECTION : Safety glasses(goggles)
- SKIN PROTECTION : Protective clothing

CONTROL PARAMETERS

	ACGIH TLVs	OSHA PEL	NIOSH REL
Silicagel	3 mg/m ³ as resp.	Not established	
Sulfuric Acid	Not established	TWA 1 mg/m ³	TWA 1 mg/m ³

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE : White - slightly yellowish white
 SHAPE : Solid (powder)
 ODOR : No data available
 pH : Strong acid (in water)
 BOILING POINT : No data available
 MELTING POINT : No data available
 FLASH POINT : No data available
 EXPLOSIVE LIMITS : No data available
 VAPOR PRESSURE : No data available
 VAPOR DENSITY : No data available
 SPECIFIC GRAVITY : No data available
 SOLUBILITY IN : Insoluble in water, alcohol, acetone.
 PARTITION COEFFICIENT ; n-octanol/water : No data available
 AUTOIGNITION TEMPERATURE : No data available

10. STABILITY AND REACTIVITY

REACTIVITY : Stable under recommended storage conditions.
 CHEMICAL STABILITY : React with water.
 CONDITION TO AVOID : Sunlight, heat, moisture, contact with incompatible materials.
 INCOMPATIBLE MATERIALS : Acidic materials, oxidants, reductants
 HAZARDOUS DECOMPOSITION PRODUCTS : Sulfur compounds

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY -inhalation- : rat: LD50=1.58 mg/L/4h(calculated)
 SKIN CORROSION/IRRITATION : (conc. Sulfuric acid) pH < 1
 EYE DAMAGE/EYE IRRITATION : (conc. Sulfuric acid) Human: extremely serious eye damage (ATSDR,1998), rabbit: moderate (5% solution), intensity (10% solution)(SIDS,2001).
 SENSITIZATION : (Sulfuric acid) No allergic property in Human (SIDS,1998)
 GERM CELL MUTAGENICITY : Negative (ATSDR,1998)
 CARCINOGENICITY : (Sulfuric acid) Category 4 (DFGOT vol.15,2001)
 REPRODUCTIVE TOXICITY : Negative (SIDS,2001)
 SPECIFIC TARGET ORGAN TOXICITY - single exposure - : (Sulfuric acid) Inhaled low conc. , tract irritation (DFGOT,2001).
 Inhaled high conc., permanent damage (ATSDR,1998).
 ASPIRATION TOXICITY : (Sulfuric acid) If inhaled, serious damage in animals (SIDS(2001), ATSDR (1998))

12. ECOLOGICAL INFORMATION

ECOTOXICITY : (Sulfuric acid) Lepomis macrochirus: LC50=16 - 28 mg/L/96h (SIDS,2003)
 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

UN NUMBER : 3260
UN PROPER SHIPPING NAME : CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S
(Sulfuric Acid-impregnated Silicagel)
CLASS : Class 8, corrosive solid
PACKING GROUP : III
ADR/RID : 3260, Corrosive Solids
DOT : 3260, Corrosive Solids
MARINE POLLUTANT : Not classified

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.