

SAFETY DATA SHEET

SDS No. 1050-0021

Date

July 9, 2015

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1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : Active Alumina
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. : 1050-22103, 1050-22104, 1050-22133
SDS No. : 1050-0021
Research use only.

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION : Specific target organ toxicity (Single exposure)
: Category 3(respiratory irritation)
Specific target organ toxicity (Repeated exposure)
: Category 1(lungs)

HAZARD SYMBOL :



SIGNAL WORD : Danger

HAZARD STATEMENTS :

H335 : May cause respiratory irritation
H372 : Cause damage to organs through prolonged or repeated exposure

PRECAUTIONARY STATEMENTS :

P260 : Do not breathing dust.
P271 : Use only outdoors or in a well-ventilated area.
P264 : Wash hands thoroughly after handling.
P270 : Do not eat, drink or smoke when using this product.
P304+P340 : IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P314 : Get medical attention if you feel unwell.
P403+P233 : Store in a well-ventilated place. Keep container tightly closed.
P405 : Store locked up.
P501 : Dispose of contents/container in accordance with all applicable regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL IDENTITY : Aluminium oxide
SYNONIMS : Aluminum trioxide, Alumina, alpha-Aluminum oxide
CHEMICAL FORMULA : Al₂O₃
CONTENT : - - -
MOLECULAR WEIGHT : 101.96
CAS No. : 1344-28-1
TSCA INVENTORY : Listed
EINECS No. : 215-691-6
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, 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.
- ENVIROMENTAL PRECATIONS : 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.
- INCOMOPATIBLE PRODUCTS : Strong oxidizers, acids, strong bases

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
- CONTROLL PARAMETERS :
 - ACGIH TLVs : Not established
 - OSHA PEL : 15 mg/m³ (total), TWA 5 mg/m³ (resp)
 - NIOSH REL : Not established
- 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

9. PHYSICAL AND CHEMICAL PROPERTIES

- APPEARANCE : White
- SHAPE : Solid (powder)
- ODOR : No data available
- pH : 9.0 - 11.0 (100 g/L in water, 25°C)
- BOILING POINT : 2980°C
- MELTING POINT : 2030°C
- FLASH POINT : No data available
- EXPLOSIVE LIMITS : No data available
- VAPOR PRESSURE : No data available
- DENSITY : 3.97

SPECIFIC GRAVITY : 3.97
 SOLUBILITY IN : Practically insoluble in water, organic solvent, acids, bases.
 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 : No data available
 CONDITION TO AVOID : Sunlight, high temperature, contact with incompatible materials, creating dust.
 INCOMPATIBLE MATERIALS : Acidic materials, oxidants, reductants
 HAZARDOUS DECOMPOSITION PRODUCTS : No data available

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY -oral- : rat: LD50>5000 mg/kg (IUCALID,2000)
 SKIN CORROSION/IRRITATION : No data available
 EYE DAMAGE/EYE IRRITATION : No data available
 SENSITIZATION : No data available
 GERM CELL MUTAGENICITY : Lack of data
 CARCINOGENICITY : Category A4 (ACGIH)
 REPRODUCTIVE TOXICITY : No data available
 SPECIFIC TARGET ORGAN TOXICITY - single exposure - : upper respiratory tract irritation (ICSC,2000)
 ASPIRATION TOXICITY : Human: Lung fibrosis by occupational exposure (EHC,1997)

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 : Not dangerous goods
 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.