

# SAFETY DATA SHEET

SDS No.1050-0034

Revised date April 7, 2025

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## 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : ACTIVE CARBON BEADS  
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. : 1050-22150、1050-22151、1050-22155、1050-22156、1050-、1003-  
SDS No. : 1050-0034  
Research use only.

## 2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION : Classification not possible  
HAZARDS SYMBOL : - - -  
SIGNAL WORD : - - -  
HAZARD STATEMENTS : - - -  
PRECAUTIONARY STATEMENTS : - - -  
OTHER INFORMATION : Stable under recommended using condition.  
Dropping or bumping may induce shreds and fragments and/or dusts by external shocks.  
Dispose of contents/container in accordance with all applicable regulations.  
MOST IMPORTANT HAZARDS : No data available

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE / MIXTURE : SUBSTANCE  
COMMON CHEMICAL NAME : ACTIVE CARBON BEADS  
SYNONYMS : Carbon  
CHEMICAL FORMULA : C  
MOLECULAR WEIGHT : 12.011  
CONTENT : 100%  
CAS RN. : 7440-44-0  
TSCA INVENTORY : Not Listed  
EINECS No. : Not Listed  
EC INDEX No. : Not established

## 4. FIRST AID MEASURES

GENERAL ADVICE : If fragments/respirable dust contacts with eyes or skin, 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. If irritation persists, consult a physician.  
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.  
MOST IMPORTANT SYMPTOMS AND EFFECTS : Shreds and dusts 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 : 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 material with suitable protection.  
 After using this product, dispose of contents/container in accordance with all applicable regulations and appropriate ways.
- STORAGE : Store away from moisture and water in well-ventilated dry place.  
 Keep container tightly closed.
- INCOMPATIBLE PRODUCTS : Do not store near strong oxidizers, strong bases, strong acids, or sources of fire.

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 : TWA 3.0mg/m<sup>3</sup>, 10mg/m<sup>3</sup>
- OSHA PEL : TWA 15 mg/m<sup>3</sup>, TWA 5 mg/m<sup>3</sup>
- NIOSH REL : Not established
- PERSONAL PROTECTION
- RESPIRATORY PROTECTION : 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 : Chemical resistant gloves
- EYE PROTECTION : Safety glasses(goggles)
- SKIN PROTECTION : Protective clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

- APPEARANCE : Black powder Spherical
- PHYSICAL STATE : Solid
- ODOR : Odorless
- MELTING POINT / FREEZING POINT : > =3000 °C
- BOILING POINT OR INITIAL BOILING POINT AND BOILING RANGE : >= 3000 °C
- FLAMMABILITY : Non Flammable
- LOWER AND UPPER EXPLOSION LIMIT / FLAMMABILITY LIMIT : Not applicable
- FLASH POINT : No data available
- AUTO-IGNITION TEMPERATURE : 290 - 520 °C
- DECOMPOSITION TEMPERATURE : No data available
- pH : No data available
- KINEMATIC VISCOSITY : Not applicable
- SOLUBILITY IN
- Water : Insoluble
- Organic solvent : Insoluble
- PARTITION COEFFICIENT
- n-octanol/water (log value) : No data available
- VAPOUR PRESSURE : No data available
- DENSITY AND/OR RELATIVE DENSITY : 1700 - 1900 kg/m<sup>3</sup>

RELATIVE VAPOUR DENSITY : Not applicable  
 PARTICLE CHARACTERISTICS : 20/30mesh, 30/60mesh

**10. STABILITY AND REACTIVITY**

REACTIVITY : Stable under recommended using and storage conditions.  
 CHEMICAL STABILITY : Stable under recommended storage and using conditions.  
 CONDITION TO AVOID : Sunlight, heat, moisture, Contact with open flames, high temperatures, sparks, static electricity, other sources of ignition, and dangerous materials for contact.  
 INCOMPATIBLE MATERIALS : Strong oxidizer, acidic compound.  
 HAZARDOUS DECOMPOSITION PRODUCTS : Harmful fume etc.

**11. TOXICOLOGICAL INFORMATION**

ACUTE TOXICITY : LD0 value of >8000 mg/kg bw for rats (IUCLID (2000))  
 LD50 value is >3 mg/kg for rabbits (RTECS (2008))

SKIN CORROSION/IRRITATION : Results of "no irritating" in 4 tests with rabbits (one test was conducted according to OECD TG404) (IUCLID (2000)).

EYE DAMAGE/EYE IRRITATION : Based on results of "no irritating" in 3 tests with rabbits (IUCLID (2002)), the substance was classified as "Not classified". Although there is a result of "irritating" in a human test (IUCLID (2002)), the details are not clear. It has been suggested that the fine grain may be irritating mechanically (HSDB (2003)).

SENSITIZATION : No data available

GERM CELL MUTAGENICITY : Although there is a positive result in a rat alveolar cell HPRT gene mutation test by inhalation exposure and intratracheal administration (in vivo somatic cell mutagenicity test) (DFGOT vol.18 (2002)), this positive result is considered not to indicate the germ cell mutagenicity of carbon black since it is thought to be induced by the polycyclic aromatic hydrocarbons present in the substance or by reactive oxygen species due to inflammation reaction.

CARCINOGENICITY : Based on the classification of "Group 2B" in IARC and Category 2B in Japan Society For Occupational Health (JSOH), the substance was classified into Category 2. In a 24-month inhalation test in rats, the incidence of primary lung neoplasms was increased significantly and was dose related. The types of neoplasms were identical and included benign adenomas, malignant adenocarcinomas, squamous-cell carcinomas, and adenosquamous carcinomas (EHC No.171 (1996)). In a rat test, the 43-week and 86-week exposure groups had a lung tumour rate of 18% and 8%, respectively, with no tumours observed in the control group (IARC vol.65 (1996)).  
 IARC in group 2B (IARC 93 (2010)), ACGIH is classified into A3 (ACGIH (7th, 2011)), which is based on inhalation experiments by rats.  
 For humans, epidemiological studies in Europe and the United States have also been concluded as "inappropriate as evidence to classify carcinogenicity" due to inadequate methodological deficiencies and lack of number of subjects to be investigated.

REPRODUCTIVE TOXICITY : No data available

SPECIFIC TARGET ORGAN TOXICITY -single exposure- : Although there is a report of behavioral somnolence as a symptom after oral administration to rats (15,400 mg/kg) (RTECS (2008)), the details are unknown, therefore, classification was not possible due to lack of sufficient data.

SPECIFIC TARGET ORGAN TOXICITY -repeated exposure- : Numerous epidemiological tests for carbon black workers were conducted. In workers exposed for long term (10 years and more), the following symptoms characteristic of the lung occurred; cough, sputum, chronic bronchitis, lung function disturbances, pneumoconiosis, emphysema, disturbance of lung perfusion, obstructive disturbance of ventilation, bronchial hyper-reactivity and decrease in airway resistance and expiratory flow (IARC vol.65 (1996)). In addition, it was reported that fine, diffuse changes were observed in the chest radiogram, and histological examination revealed deposits of carbon black particles and reticular fibrosis with associated emphysema (IARC vol.65 (1996)).

ASPIRATION TOXICITY : No data available

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**12. ECOLOGICAL INFORMATION**

- ECOTOXICITY : Classified into Not classified since it is suggested not to show the toxicity at the concentration of water solubility (insoluble (HSDB,2009)) from its 72h- $ErC_{50}$  >10000 mg/L for algae (*Scenedesmus*) (SIDS,2006), its 24h-LC<sub>50</sub> >5600 mg/L for Crustacea (*Daphnia magna*) (SIDS,2006) and its 96h-LC<sub>50</sub> >1000 mg/L for fish (*Tribolodon hakonensis*) (SIDS,2006).
- BIODEGRADABILITY : May not occur microbial degradation.
- BIOACCUMULATION POTENTIAL : No data available
- MOBILITY IN SOIL : No data available
- HAZARDOUS TO THE OZONE LAYER : 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**

## International Regulations

- Maritime regulations : Conform to the provisions of IMO.
- UN No. : Not regulated
- Proper Shipping Name : -
- Class : -
- Packing Group : -
- Marine Pollutant : Not applicable
- Aviation regulations : Conform to the provisions of ICAO/IATA.
- UN No. : Not regulated
- Proper Shipping Name : -
- Class : -
- Packing Group : -
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**15. REGULATORY INFORMATION**

This SDS has been prepared in accordance with Japanese laws and regulations and has not been prepared based on research into the local laws and regulations of each country.

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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.