Safety Data Sheet (SDS) — Granular Activated Carbon “MICRO”

1. Identification

Product identification
- Trade names: MICRO, GAMA, MEGA
- Other identifiers: Activated Carbon

Recommended use and restrictions on use
- Recommended use: Liquid-phase applications (purification, e.g., decolorization, deodorization, separation of specific compounds, etc.)
- Restrictions on use: No relevant information available

Supplier/Manufacturer details (SDS provider)
- Henan CarbonFresh Activated Carbon Co., Ltd.
- Website: https://www.carbonfreshcn.com/
- Email: info@carbonfreshcn.com
- Tel: (+86) 155-3801-7198
- Address: Enterprise Headquarters Base, Innovation Park, High-tech Zone, Zhengzhou, Henan, China

2. Hazard Identification

Classification of the substance or mixture: Not regulated by OSHA; non-hazardous substance

Label elements (GHS)
- This product is classified and labeled according to the Globally Harmonized System (GHS)
- Pictogram: GHS02 — Flame
- Signal word: Warning
- Hazard statements:
  ◎ H252 Self-heating in large quantities; may catch fire

Other hazards:
- Activated carbon (especially when wet) can deplete oxygen in confined spaces, creating a dangerous oxygen-deficient atmosphere
- Take appropriate precautions when handling “spent/used” activated carbon. In certain cases, used activated carbon may present hazards related to desorbed substances

Precautionary statements:
- P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking
- P332+P313 If skin irritation occurs: Get medical advice/attention
- P337+P313 If eye irritation persists: Get medical advice/attention
- P370+P378 In case of fire: Use water mist, dry chemical, or carbon dioxide (CO2) for extinction

3. Composition/Information on Ingredients

Substance: Activated Carbon
Ingredient: Activated Carbon, CAS# 7440-44-0, content 100%
- Molar mass: 12.01 g/mol
- Molecular formula: C

4. First-Aid Measures

Inhalation: If experiencing breathing difficulties or other respiratory symptoms, move to fresh air. Seek medical attention if symptoms occur
Skin contact: Wash with soap and water. Seek medical attention if symptoms occur
Eye contact: Rinse cautiously with plenty of water for several minutes. Seek medical attention if symptoms occur

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- Ingestion: Toxic effects unknown. Rinse mouth and drink one to two glasses of water
- Most important symptoms and effects: No further relevant data
- Indication of any immediate medical attention and special treatment needed: No further relevant data

5. Fire-Fighting Measures

Extinguishing media
- Suitable extinguishing media: Carbon dioxide (CO_2), dry chemical, or water mist. If water is used, water mist is recommended
- Unsuitable extinguishing media: Do not use a solid water stream, which may spread the fire. Do not use high-pressure media that could create a potentially explosive dust–air mixture

Special hazards arising from the substance or mixture
- Specific hazards: Irritating fumes may be produced during combustion. Activated carbon is not easily ignited and tends to smolder without flames
- Hazardous combustion products: Carbon dioxide (CO_2); carbon monoxide (CO) may form under oxygen-deficient conditions. Volatile organic compounds (VOCs) previously adsorbed on used activated carbon may desorb during combustion

Advice for firefighters
- Wear appropriate protective equipment
- Use self-contained breathing apparatus (SCBA)
- Other information: No further relevant data

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures
- Avoid dust formation. Ensure adequate ventilation. Use personal protective equipment

Environmental precautions
- No special environmental precautions required

Methods and materials for containment and cleaning up
- Avoid dry sweeping; use water spray or vacuum systems to minimize airborne dust. Collect and transfer to properly labeled containers
- Dispose of unused (virgin) activated carbon at non-hazardous waste facilities
- Dispose of used activated carbon in accordance with applicable laws and regulations

Reference to other sections
- See Section 7 for safe handling
- See Section 8 for personal protective equipment
- See Section 13 for disposal information

7. Handling and Storage

Precautions for safe handling
- Avoid contact with skin and eyes
- Handle in accordance with good industrial hygiene and safety practices

Conditions for safe storage, including any incompatibilities
- Storage conditions: Keep dry, cool, and well ventilated. Keep away from heat and ignition sources. Do not store with strong oxidizers. Store in properly labeled containers

Specific end uses: See recommended use

8. Exposure Controls/Personal Protection

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Control parameters

- Components with workplace monitoring limits: This product contains no relevant substances with critical workplace exposure limits

Exposure controls

- General protective and hygiene measures: Follow standard precautions for handling chemicals; wash hands before breaks and at the end of work; maintain an ergonomically appropriate work environment
- Personal protective equipment (PPE):
  - Respiratory protection: Use an approved respirator if necessary
  - Skin protection: Wear suitable gloves and protective clothing; launder work clothing daily
  - Eye/face protection: Wear safety glasses with side shields and/or face protection
- Environmental exposure controls: No special environmental precautions required
- Risk management measures: Follow good industrial hygiene and safety practices; ensure adequate ventilation
- Other: May cause slippery floors. When handling used activated carbon, be aware of risks from adsorbed substances, which may be flammable or toxic

9. Physical and Chemical Properties

Information on basic physical and chemical properties

- Appearance: Granules
- Physical state: Solid
- Color: Black
- Odor: Odorless
- Odor threshold: Not applicable
- pH: Not applicable
- Melting point/range: Not applicable
- Boiling point/range: Not applicable
- Flash point: Not determined
- Flammability (solid, gas): Not determined
- Auto-ignition temperature: 250° C
- Decomposition temperature: Not applicable
- Explosion hazard: Not determined
- Explosion limits: Lower Not determined; Upper Not determined
- Oxidizing properties: Not applicable
- True density: 2.3 g/cm³
- Bulk density: 0.55–0.62 g/cm³
- Vapor pressure: Not applicable
- Vapor density: Not applicable
- Evaporation rate: Not applicable
- Solubility in water: Insoluble
- Partition coefficient (n-octanol/water): Not applicable
- Viscosity (dynamic/kinematic): Not applicable

Other information: No relevant information

10. Stability and Reactivity

- **Reactivity:** Exothermic reactions may occur upon contact with strong oxidizers
- **Chemical stability:** Stable under recommended handling and storage conditions
- **Thermal decomposition/conditions to avoid:** Not applicable
- **Possibility of hazardous reactions:** None under normal processing conditions

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Conditions to avoid: Keep away from heat and ignition sources; avoid dust formation
Incompatible materials: Strong oxidizers
Hazardous decomposition products: Carbon monoxide

11. Toxicological Information

Acute toxicity: Not classified
- Oral LD50: 5000 mg/kg (OECD 423)
- Inhalation LC50: Not classified
- Dermal LD50: Absorption is highly unlikely; health effects unknown

Skin corrosion/irritation: Not classified. Rabbit skin irritation test (OECD 404): Non-irritant
Serious eye damage/eye irritation: Not classified. Rabbit eye irritation test (OECD 405): Non-irritant
Sensitization: Not classified. Local lymph node assay (OECD 429): Not sensitizing
Germ cell mutagenicity/Carcinogenicity
- IARC: Not classified
- NTP: Not classified
- OSHA-Ca: Not classified

Reproductive toxicity: Not classified

12. Ecological Information

Aquatic toxicity: Non-toxic; adverse ecological effects unknown
Persistence and degradability: Expected to be non-biodegradable
Bioaccumulative potential: Not expected based on physicochemical properties
Mobility in soil: Not expected based on physicochemical properties
Results of PBT and vPvB assessment
- PBT: Does not meet PBT criteria
- vPvB: Does not meet vPvB criteria

Other adverse effects: No relevant information

13. Disposal Considerations

Waste treatment methods and recommendations
- The user is responsible for disposing of the material in accordance with applicable regional, national, and local regulations

14. Transport Information

- UN number: UN1325
- Proper shipping name: ACTIVATED CARBON
- Transport hazard class: 4.2 Self-heating substances
- Packing group: III
- Environmental hazards (marine pollutant): No
- Special precautions for user: Not applicable
- Applicable regulations: ADR / IMDG / IATA

15. Regulatory Information

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Safety, health and environmental regulations/legislation specific for the substance or mixture

- Applicable international inventories:
  - TSCA (U.S. Toxic Substances Control Act Section 8(b)) Inventory: Compliant
  - DSL/NDSL (Canadian Domestic/Non-Domestic Substances Lists): Compliant
- Applicable national inventories: Not determined

16. Other Information

Abbreviations

- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- IMDG: International Maritime Dangerous Goods Code
- IATA: International Air Transport Association
- CAS: Chemical Abstracts Service
- LC50: Median lethal concentration
- LD50: Median lethal dose
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: Very Persistent and Very Bioaccumulative
- OSHA: Occupational Safety and Health Administration
- IARC: International Agency for Research on Cancer

Disclaimer: The information in this Safety Data Sheet is based on our best knowledge and current regulations at the time of preparation. It is provided for guidance on health, safety, and environmental aspects of the product and does not constitute a guarantee of technical performance or fitness for a particular purpose. As the specific conditions of use are beyond the supplier’s control, the user is responsible for ensuring safe use of the product and compliance with applicable laws and regulations.