



SAFETY DATA SHEET

Revision date: 7-August-2025

1. Identification

Product identifier

- Trade name MCP Mesoporous Carbon
- Product name MCP-4

Cat No.: MMS-NC-0124

CAS No.: 7440-44-0

EC No.: 231-153-3

Industrial/Professional use spec Industrial, research applications

For professional and industrial use only.

Use of the substance/mixture Source of monodisperse, highly porous, electronically conductive carbon powders for catalyst supports, batteries and as reverse opal templating agents for nanostructured materials.

Details of the supplier of the safety data sheet

Supplier: Momentum Materials Solutions Corp.
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Canada
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Emergency telephone FOR EMERGENCIES CALL YOUR LOCAL GENERAL PRACTITIONER

CALL 911 IF THERE IS LIFE-
THREATENING INCIDENT

2. Hazard(s) identification

Classification

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Label Elements

None required.

Hazards not otherwise classified (HNOC)

None identified.

Disposal

P501 dispose of contents/container in
accordance with
local/regional/national/international
regulations.

3. Composition/Information on Ingredients

Component	CAS-No.	EC-No.	Weight %	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Carbon	7440-44-0	231-153-3	100	EC-No. 231-153-3

4. First-aid measures

First-aid measures after inhalation

Remove the affected person from the contaminated area to fresh air. Keep the respiratory tract unobstructed. If discomfort occurs, seek medical attention.

First-aid measures after skin contact

Rinse skin thoroughly with plenty of water. If irritation or discomfort occurs, seek medical attention.

First-aid measures after eye contact

Lift the eyelids and rinse cautiously with clean, running water for at least 15 minutes. If

	irritation or discomfort occurs, seek medical attention.
First-aid measures after ingestion	If conscious, rinse mouth with warm water. Seek medical attention.
Most important symptoms and effects, both acute and delayed	
Symptoms/injuries after inhalation	No data available.
Symptoms/injuries after skin contact	Not known to irritate skin.
Symptoms/injuries after eye contact	No data available.
Symptoms/injuries after ingestion	No data available.
Indication of any immediate medical attention and special treatment needed	Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media	Water mist, carbon dioxide, dry chemical powder, or appropriate foam.
Unsuitable extinguishing media	Do not use a heavy spray flow, as the powders are easily spread. Do not use a high-pressure media which could cause the formation of a potentially explosible dust-air mixture.
Hazardous decomposition products in case of fire	Carbon oxides may be released when exposed to high temperatures or during combustion.
Firefighting instructions	Firefighters should wear self-contained positive-pressure breathing apparatus (SCBA) and full protective clothing to prevent skin and eye contact. Fight the fire from an upwind position. Isolate the affected area and keep unauthorized personnel away. Cool fire-exposed containers with water spray until the fire is completely extinguished. If possible, move containers away from the fire area to an open, safe location.
Protective equipment for firefighters	Do not enter fire area without proper protective equipment, including respiratory protection.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use appropriate personal protective equipment. Avoid inhalation of dust. Ensure adequate ventilation. Remove all sources of ignition. Keep personnel away from the spill or leak area and remain upwind. Keep unauthorized personnel away.

Environmental precautions

If safe to do so, prevent further leakage or spillage. Prevent the product from entering drains or sewers.

Methods and material for containment and cleaning up

Collect using a clean shovel and place in a dry, clean, covered container. Keep the container tightly closed pending disposal. Ventilate the area after cleanup and wash the affected area with water. Avoid generating dust.

Refer to sections 8 and 13.

7. Handling and storage

Precautions for safe handling

Operators should be properly trained and strictly follow operating procedures. It is recommended that operators wear appropriate protective clothing and suitable chemical-resistant protective gloves. Avoid inhalation of dust and direct contact with eyes and skin. Avoid generating dust. Keep away from flames and heat sources. Smoking is prohibited in the workplace. Ensure adequate ventilation and appropriate ventilation equipment. Avoid contact with strong oxidizing agents. Wash hands and face thoroughly after handling. Handle with care during transportation to prevent damage to packaging, exposure to moisture, and product loss. Appropriate types and quantities of fire-extinguishing equipment and emergency spill-response equipment should be readily available.

Conditions for safe storage, including any incompatibilities

Store in a cool, well-ventilated, dry area. Keep away from flames and heat sources and protect from direct sunlight. Keep containers tightly closed. Store separately from strong oxidizing agents. The storage area should be equipped with appropriate types and quantities of fire-extinguishing equipment, emergency spill-response equipment, and suitable materials for containing spills.

8. Exposure controls / personal protection

Exposure Guidelines

Component: nanoporous carbon powder		
ACGIH	Not set up	-
GBZ 2.1-2019	Not set up	-

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

GBZ - National Occupational Health Standard / Public Health Standard prefix in China

Exposure controls

Appropriate engineering controls

Provide adequate ventilation systems and equipment. Provide safety showers and eyewash stations.

Personal protective equipment

Skin protection

Hand Protection: Wear suitable protective gloves.
Body Protection: Wear suitable protective clothing.

Eye/face protection

Wear appropriate safety glasses or protective goggles as necessary.

Respiratory protection

If necessary, wear a protective respirator approved by the appropriate regulatory authority.

Thermal hazard protection

Eliminate all sources of ignition. Avoid sparks, flames and do not smoke in risk area.

Other information

Smoking, eating, and drinking are strictly prohibited in the workplace. Shower and change clothing after work.

9. Physical and chemical properties

Physical state	Black powder
Odour	Slight odor
pH	Not applicable
Solubility	Slightly soluble in water
Melting Point/Freezing Point	Not applicable
Boiling Point, Initial Boiling Point and Boiling Range	Not applicable
Flash Point (Closed Cup)	Not applicable
Density/Relative Density	No data available
Kinematic Viscosity	Not applicable
Lower/Upper Flammability or Explosive Limits	No data available
Vapor Pressure	No data available
Relative Vapor Density	No data available
n-Octanol/Water Partition Coefficient (log value)	No data available
Auto-Ignition Temperature	No data available
Decomposition Temperature	No data available
Particle Characteristics	No data available
Flammability (solid, gas)	Not applicable

Self-Heating Test:

The product was tested for self-heating properties in accordance with UN Manual of Tests and Criteria, ST/SG/AC.10/11/Rev.7, Section 33.4.6, Test N.4 (Test Method for Self-Heating Substances). The test was conducted at 140°C using a 100 mm × 100 mm × 100 mm sample. During the test, the sample temperature did not exceed the test temperature by 60°C.

10. Stability and reactivity

Reactivity	No data available.
Chemical stability	Stable under room temperature and ambient pressure.
Possibility of hazardous reactions	No data available.
Conditions to avoid	Contact with oxidizing substances or ignition sources.
Incompatible materials	Strong oxidants.
Hazardous decomposition products	Carbon oxides.

11. Toxicological information

Acute Toxicity	No data available
Skin Corrosion/Irritation	No data available
Serious Eye Damage/Eye Irritation	No data available
Respiratory Sensitization	No data available
Skin Sensitization	No data available
Germ Cell Mutagenicity	No data available
Carcinogenicity	No data available
Reproductive Toxicity	No data available
Specific Target Organ Toxicity – Single Exposure (STOT-SE)	No data available
Specific Target Organ Toxicity – Repeated Exposure (STOT-RE)	No data available
Aspiration Hazard	No data available

12. Ecological information

Toxicity	No data available
Persistence and Degradability	No data available

Bioaccumulative Potential	No data available
Mobility in Soil	No data available
Other Adverse Effects	No data available

13. Disposal considerations

Waste treatment methods	Consider recycling or reuse whenever possible. If recycling or reuse is not feasible, disposal by incineration under appropriate supervision is recommended. Do not dispose of this product by discharge into sewers. Return empty containers to the manufacturer or dispose of them in accordance with applicable national and local regulations. Before disposal, consult and comply with all applicable national and local regulations. It is recommended that the waste be handled by a qualified chemical waste disposal facility.
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14. Transport information

RID/ADR (2023 Edition):

The product has been tested in accordance with the prescribed self-heating test and does not meet the classification criteria for Class 4.2. In accordance with 2.1.2.6, the product is not subject to RID/ADR regulations.

IATA DGR (65th Edition):

The product has been tested in accordance with the prescribed self-heating test and does not meet the classification criteria for Class 4.2. In accordance with Special Provision A3, the product is not subject to IATA DGR regulations.

IMO IMDG Code (2022 Edition):

The product has been tested in accordance with the prescribed self-heating test and does not meet the classification criteria for Class 4.2. In accordance with Special Provision 223, the product is not subject to the IMDG Code.

Environmental Hazards:	No
Special Precautions for User:	No data available

Transport in Bulk According to MARPOL 73/78 Annex II and the IBC Code:
Not applicable.

Note:

The material being transported must be consistent with the material tested and evaluated for the conclusions stated in this section.

15. Regulatory information

Montreal Protocol	Not listed
Stockholm Convention	Not listed
Rotterdam Convention	Not listed
EINECS/ELINCS	Listed
TSCA	Listed
IECSC	Listed

16. Other information

Reference Standard:

Globally Harmonized System of Classification and Labelling of Chemicals (GHS), 10th Revised Edition

Abbreviations and Acronyms

CAS	Chemical Abstracts Service
EC	European Commission
ACGIH	American Conference of Governmental Industrial Hygienists
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
IATA DGR	International Air Transport Association Dangerous Goods Regulations

IMO IMDG Code

International Maritime Organization
International Maritime Dangerous Goods
Code

MARPOL

International Convention for the Prevention of
Pollution from Ships

IBC Code

International Code for the Construction and
Equipment of Ships Carrying Dangerous
Chemicals in Bulk

EINECS

European Inventory of Existing Commercial
Chemical Substances

ELINCS

European List of Notified Chemical
Substances

TSCA

Toxic Substances Control Act

IECSC

Inventory of Existing Chemical Substances in
China

Other Information:

This SDS has been prepared based on information regarding the composition and content provided by the applicant and on our current knowledge, and is intended for guidance only. Users of this SDS must independently assess the accuracy and completeness of the information, determine its applicability based on actual conditions of use, and assume the relevant legal responsibilities arising from its use.

End of SDS
