SAFETY DATA SHEET

Revision date: 07-December-2022

1.Identification

Product Name	Nanoporous Carbon Powder (NCP)
Cat No.:	MMS-NC-0118, MMS-NC-0119, MMS-NC-0120, MMS-NC-0121,
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. 253147 Bearspaw Road, Calgary, Alberta T3L 2P5 TEL: +1 (587)600-1616 FAX: +1 (587)206-9760 EMAIL: info@momentummaterials.com https://momentummaterials.ca
Emergency number	+1 (587) 600-1616

2. Hazard(s) identification

Classification

Regulation (EC) No. 1272/2008 [CLP]	Not classified.

Adverse physicochemical, human health and environmental effects

No additional information available.

Other hazards which do not result in classification	Not known.

3. Composition/Information on Ingredients

Component	Chemical formula	% by weight	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Nanoporous carbon powder	C	100	Not classified

4. First-aid measures

First-aid measures after inhalation

Move the affected person away from the contaminated area and into the fresh air. Seek medical attention if ill effect or irritation develops. Wear approved dust mask to avoid breathing dust.

First-aid measures after skin contact

Wash with mild soap and warm water. Carbon dust or powder may cause drying of the skin with repeated and prolonged contact. Powder is not a known chemical irritant. Treat symptomatically for mechanical irritation.

First-aid measures after eye contact

Rinse with tepid water until eyes are clear of particulates. Seek medical attention if irritation persists. Carbon powder is not a chemical eye irritant. Treat symptomatically for mechanical irritation.

First-aid measures after ingestion

Seek medical attention immediately. Do not induce vomiting unless instructed by medical personnel. Get victim to drink a small amount of water. Never give anything by mouth to an unconscious person. Call a POISON CENTRE or doctor/physician.

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	Dry chemical extinguisher. Foam. Carbon dioxide. Water spray. Sand. Limestone powder.
Unsuitable extinguishing media	Do not use a heavy spray flow, as the NCP 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. Nitrogen oxides.
Firefighting instructions	In the event of fire, wear self-contained breathing apparatus, gloves, safety goggles.
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	Evacuate unnecessary personnel. For non-emergency personnel: Wear approved dust mask, safety goggles, and conventional work gloves. Ventilate area. For emergency responders: Wear an approved dust mask, safety goggles, and conventional work gloves. Same methodology as for non-emergency personnel.
Environmental precautions	NCP, a carbon powder, is inert and insoluble. Good housekeeping practices should be followed and spilled material should be cleaned up and disposed of in an appropriate manner.
Methods and material for containment and cleaning up	Use conventional cleanup techniques and avoid creating dust. Vacuum or damp paper towels are preferred over sweeping. Wear a dust mask/respirator to reduce the change of inhaled dust. Carbon powders on general are flammable. Avoid creating dust near open heat sources. Carbon powders are electrically conductive. Any cleanup methods should avoid contacting material with electrical circuitry. .

Refer to sections 8 and 13.

7. Handling and storage

Precautions for safe handling	Use conventional methods and avoid spreading dust. Keep powder from contacting eyes. Minimize dust generation and accumulation on surfaces. Use local exhaust ventilation or other appropriate engineering controls to maintain dust below the occupational exposure limit. Dust may cause electrical shorts if able to penetrate electrical boxes and other electrical devices, possibly creating electrical hazards resulting in equipment failure. Electrical devices should be tightly sealed or purged with clean air, periodically inspected, and cleaned, as required. If hot work (welding, torch cutting, etc.) is required the immediate work area must be cleared of carbon powder product, dust and other combustible materials. Approved fire and heat resistant welding blankets may provide additional thermal protection from sparks and splatter. Follow standard safe practices for welding, cutting, and allied processes as described in ANSI Z49.1. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.
Conditions for safe storage, including any incompatibilities	Store all carbonaceous materials in a dry location away from ignition sources and strong oxidizers. Finely divided carbon is incompatible with all oxidizing agents, including pure oxygen, chlorine, strong oxidizers. Storage class (TRGS 510): 11: Combustible Solids. Dust Explosibility Hazards: Very finely divided carbon powders pose a very slight risk of dust explosion hazard: Dust class ST1, MIE greater than 10 J (very low hazard of spark ignition).

8. Exposure controls / personal protection

Control parameters: No data available.

Calcined pitch coke (150339-33-6) [Analogous to NCP]		
USA - ACGIH	ACGIH TWA (mg/m^3)	3.0 mg/m^3 (respirable particles)
USA - ACGIH	ACGIH TWA (mg/m^3)	10.0 mg/m^3 (inhalable dust)

Exposure controls

Appropriate engineering controls	Use adequate dust collection to maintain dust levels below the control or recommended values. Change contaminated clothing. Wash hands after working with substance.
Personal protective equipment	
Hand protection	Conventional work gloves and clothing.
Eye protection	Wear laboratory goggles, or full side shielded safety glasses.
Respiratory protection	Approved dust mask, type N95 recommended.
Thermal hazard protection	Eliminate all sources of ignition. Avoid electrical equipment, sparks, flames and do not smoke in risk area.
Other information	Do not eat, drink or smoke during use.

9. Physical and chemical properties

Physical state	Solid, granular and powder
Colour	Black
Odour	None
Odour threshold	No data available
pH	Not applicable
Relative evaporation rate (butyl acetate=1)	Not applicable
Melting point	No data available
Freezing point	Not applicable
Boiling point	No data available
Flash point	No data available
Auto-ignition temperature	Above 500 ^oC
Decomposition temperature	Oxidizes above 400 ^oC
Flammability (solid, gas)	No data available

Vapour pressure	No data available
Relative vapour density at 20 °C	Not applicable
Relative density	Not applicable
Density	0.2-0.4 g/cm^3
Solubility	Water: insoluble
Log Pow	No data available
Viscosity, kinematic	Not applicable
Viscosity, dynamic	Not applicable
Explosive properties	No data available
Oxidizing properties	Not applicable
Explosive limits	No data available
VOC content	0% g/l

10. Stability and reactivity

Reactivity	The NCP product is stable at normal handling and storage conditions.
Chemical stability	Stable.
Possibility of hazardous reactions	None known under normal conditions of use. Similar to all carbon materials, high concentrations of fine dust in air have the potential to be an explosion hazard.
Conditions to avoid	Excessive heat.
Incompatible materials	Oxidizing agents. Pure oxygen. Chlorine. Strong oxidizers.
Hazardous decomposition products	Carbon oxides, nitrogen oxides.

11. Toxicological information

Acute toxicity	Not classified. The chemical, physical, and toxicological properties of NCP have not been thoroughly investigated.
Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Not classified
Respiratory or skin sensitisation	Not classified
Germ cell mutagenicity	Not classified

Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicity (single exposure)	Not classified
Specific target organ toxicity (repeated exposure)	Not classified
Aspiration hazard	Not classified
Potential Adverse human health effects and symptoms	Not classified

12. Ecological information

Toxicity (Ecology – general)	To the best of our knowledge, NCP does not present any significant environmental hazards. Carbon is the principal constituent of NCP, and is not expected to pose a toxic hazard to aquatic organisms.
Mobility in soil	No data available
Results of PBT and vPvB assessment	No data available
Other adverse effects	No data available

13. Disposal considerations

Waste treatment methods	Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to comply with applicable local, national and international regulation. Packaging should be completely emptied of contents and disposed of in a manner specified by the recycler/regional disposal contractor. Dust formation from packaging residues should be avoided. Store empty packaging in a suitable receptacle
Ecology - waste materials	NCP is a form of elemental carbon so it is not biodegradable.

14. Transport information

UN-No. (ADR)	Not regulated

UN-No. (IMDG)	Not regulated
UN-No. (IATA)	Not regulated
UN-No. (ADN)	Not regulated
UN-No. (RID)	Not regulated
Proper Shipping Name (ADR)	Not regulated
Proper Shipping Name (IMDG)	Not regulated
Proper Shipping Name (IATA)	Not regulated
Proper Shipping Name (ADN)	Not regulated
Proper Shipping Name (RID)	Not regulated
Transport hazard class(es) (ADR)	Not regulated
Transport hazard class(es) (IMDG)	Not regulated
Transport hazard class(es) (IATA)	Not regulated
Packing group (ADR)	Not regulated
Packing group (IMDG)	Not regulated
Packing group (IATA)	Not regulated
Packing group (ADN)	Not regulated
Packing group (RID)	Not regulated
Dangerous for the environment	No
Marine pollutant	No
Other information	No supplementary information available
Overland transport	Not regulated
Transport by sea	Not regulated
Air transport	Not regulated
Inland waterway transport	Not regulated
Rail transport	Not regulated
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable

15. Regulatory information

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

EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

VOC content	0% g/l
National regulations	National regulations
Chemical safety assessment	No chemical safety assessment has been carried out.

16. Other information

Disclaimer

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

End of SDS