SAFETY DATA SHEET

Version 2.0 (Revised per EPA Order P-23-0105) Revised Date 02-20-2026

Product Name: QuantumTube MB-PEG: Multi Walled Carbon Nanotubes-PEG600 composite

SECTION 1: Identification of the substance /mixture and of the company/undertaking

1.1. Product identifier

Product Name:	QuantumTube MB-PEG
PMN Number:	P-23-0105
CAS number:	---

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use:	Electrical conductivity additive into plastic and rubber polymer composites only.
Uses advised against:	Consumer use is strictly prohibited.

1.3. Details of the supplier of the safety data sheet

Supplier:	Heebut Materials LLC
Address:	17630 108th Ave SE, Renton, WA 98055
Phone:	+1 206 898 9477
E-mail:	heebut@outlook.com
Company Website Address:	www.heebut.com

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Eye Irritation (Category 2A)
Carcinogenicity (Category 2)
Specific Target Organ Toxicity – Single Exposure (Category 3, Respiratory System)
Skin and Respiratory Sensitization
Reproductive and Genetic Toxicity

2.2. Label elements

Symbols/Pictograms:

Signal word: Warning

Human Health:

Eye Irritation, Skin Sensitization, Respiratory Sensitization, Specific Target Organ Toxicity, Reproductive Toxicity, Genetic Toxicity, and Carcinogenicity.

Environmental:

May Be Toxic to Aquatic Life.

2.3. Precautionary Statements

Prevention:

Wear NIOSH-certified respirator (APF 1000) and impervious PPE. Avoid release to the environment.

Response:

If inhaled, remove to fresh air. If in eyes, rinse cautiously for several minutes.

SECTION 3: Composition/information on ingredients

3.1. Preparation

Chemical Name	CAS#	Weight%
Carbon Nanotubes	---	65-75
PEG600	25322-68-3	25-35
Cobalt(III) Oxide	1307-96-6	⩽ 0.3

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice

Remove contaminated clothing and shoes. If symptoms persist, call a physician.

Inhalation

Not an expected route of exposure. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. (Get medical attention immediately if symptoms occur.).

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. If skin irritation persists, call a physician.

Eye contact

Not an expected route of exposure. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion

Rinse mouth. IF SWALLOWED: Immediately call a POISON CENTER or doctor.

4.2. Most important symptoms and effects, both acute and delayed

As far as we know, this chemical, physical and toxic property has not been fully studied.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:	Extinguishing method and extinguishing agent: water mist, alcohol-resistant foam, dry powder or carbon dioxide.
Unsuitable extinguishing media:	No information available

5.2. Special hazards arising from the substance or mixture

If the product is caught on fire, it will release carbon monoxide and carbon dioxide.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and full protective clothing for firefighting.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation, especially in confined areas

Remove all sources of ignition

Avoid creating dust Use personal protection recommended in Section 8

6.2. Environmental precautions
Strictly prohibited from any release into water, including sewers or waste streams.

6.3. Methods and material for containment and cleaning up
Take up mechanically, placing in appropriate containers for disposal.
Take up mechanically using HEPA filtered vacuums or wet methods to avoid dust generation.

6.4. Reference to other sections
See Section 7 for more information
See section 8 for more information
See section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Handle Use only with engineering controls (95% capture/99% control) when in solid form. Wash thoroughly after handling.
Ensure adequate ventilation, especially in confined areas
Avoid contact with skin and eyes
Avoid generation of dust Wash thoroughly after handling
Use personal protection recommended in Section 8

7.2. Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a dry and well-ventilated place
Keep away from heat Store in accordance with local regulations
Keep away from food, drink, and animal feeding stuffs

7.3. Specific end use(s)
Apart from the uses mentioned in SECTION 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
Not established
Derived No Effect Level (DNEL)
No information available.
Predicted No Effect Concentration (PNEC)
No information available.

8.2. Exposure controls
Engineering Controls
Ensure adequate ventilation, especially in confined areas.
Personal protective equipment:

Respiratory Protection: Each person likely to be exposed via inhalation must wear a NIOSH-certified respirator with an Assigned Protection Factor (APF) of at least 1000.

Hand Protection: Use impervious gloves demonstrated to be a full barrier. Gloves must be replaced at the end of each work shift.

Body Protection: Chemical protective clothing that covers the entire body (e.g., coveralls, boots) to prevent dermal contact.

Environmental exposure controls

Do not allow into any sewer, or into any body of water

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Solid, powder
Color	Black
Odor Threshold	Odor Odorless
pH	Not available
Melting point/freezing point	Not available for MWCNTs 17-22 °C (63-72 F) for PEG600
Boiling point / boiling range	Not available for MWCNTs >250 °C (482 F) for PEG600
Flash point	Not available for MWCNTs >270 °C (518 F) for PEG600
Evaporation rate	Not available
Flammability (solid, gas)	Not flammable
Flammability Limit in Air	Not available
Vapor Pressure	Not available
Vapor density	Not available
Density	Not available
Relative density	Not available
Bulk density	Not available
Specific gravity	Not available
Water solubility	Insoluble in water for MWCNTs Soluble in water for PEG600
Partition coefficient	Not available
Autoignition temperature	Not available
Decomposition temperature	Not available
Kinematic viscosity	Not available
Dynamic viscosity	Not available
Explosive properties	Not an explosive
Oxidizing properties	Not available

9.2. Other information

No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions
None under normal processing.

10.4. Conditions to avoid
Static discharge, moisture, excess heat, and moist air

10.5. Incompatible materials
Strong oxidizing agents

10.6. Hazardous decomposition products
Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity
No data available.
Skin corrosion/irritation
Skin Sensitization
Serious eye damage/eye irritation
Eye Irritation (Category 2A)
Germ cell mutagenicity
No information available.
Carcinogenicity
Carcinogenicity (Category 2)
Reproductive toxicity
Reproductive and Genetic Toxicity
STOT - single exposure
Specific Target Organ Toxicity – Single Exposure (Category 3, Respiratory System)
STOT - repeated exposure
No information available.
Signs and symptoms after exposure
Inhalation may cause respiratory irritation.
Absorption through the skin may cause irritation.
Ingestion: no data available.
Aspiration hazard
No information available.

SECTION 12: Ecological information

12.1. Toxicity
May be toxic to aquatic life. PEG600 is not known to be hazardous to the environment.

12.2. Persistence and degradability
No information available. PEG600 is soluble in water and persistence is unlikely.

12.3. Bioaccumulative potential
No information available.

12.4. Mobility in soil
No information available

12.5. Results of PBT and vPvB assessment
PBT/vPvB assessment information is not available as chemical safety assessment not conducted.

12.6. Other adverse effects
No information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Waste from residues/unused products
Disposal must comply with all regional, national, and local regulations. Do not discharge into water or sewer systems.
Contaminated packaging
Dispose of in accordance with federal, state and local regulations

SECTION 14: Transport information

14.1 UN Number
Not regulated

14.2 Proper shipping name
Not regulated

14.3 Hazard Class
Not regulated

14.4 Packing Group
Not regulated

14.5 Environmental hazards
Not applicable

14.6 Special precautions
No information available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
European Union
TSCA Section 5(e) Order: This substance is subject to a Consent Order (P-23-0105) which imposes strict limits on manufacturing volume (kg/year), use, and worker protection.
Hazard Communication: This SDS must be maintained in a clearly visible location and provided in multiple languages as appropriate for the workforce.

International Inventories

Component	TSCA	DSL/ND SL	EINECS /ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Carbon nanotubes	X	X	X	X	X	X	X	X

"-" Listed
"X"Not Listed

15.2. Chemical safety assessment
No information available

SECTION 16: Other information:

This is version 2.0

Issue Date	01-04-2023
Revision date	02-20-2025
Revision Note	Updated to include mandatory EPA hazard statements, specific APF 1000 respiratory requirements, and 95%/99% engineering control efficiencies as required by Order P-23-0105.

Key or legend to abbreviations and acronyms used in the safety data sheet

TWA - TWA (time-weighted average)
STEL - STEL (Short Term Exposure Limit)
Ceiling - Maximum limit value
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.