

MATERIAL SAFETY DATA SHEET (MSDS)

Multi-Walled Carbon Nanotubes

1. Identification Of The Substance Of The Company

Product Identifiers

Product name: Carbon nanotube, multi-walled
Brand: MWCNT- Techinstro

Relevant identified uses of the substance advised against

Company: M/s. Techinstro
Plot No. - 463, Yadav Nagar
Nagpur, Maharashtra, India
Pin Code- 440026
Emergency Contact: +91(0) 8007799090
Emergency Contact Email: info@techinstro.com

2. Hazards Identifications

Classification of the substance
Classification as per the Regulation (EC) No 1272/2008 [EU-GHS/CLP]
Eye issue (irritation) (Category 2)
Specific target organ toxicity - single exposure (Category 3)
Classification as per the EU Directives 67/548/EEC or 1999/45/EC
Irritating to eyes and respiratory system
Label Elements
Labeling as per Regulation (EC) No 1272/2008 [CLP]

Signal word: Warning

Hazard statement(s)
H319
Causes serious eye irritation.
H335 May cause respiratory irritation.

Precautionary statement(s)
P261: Avoid breathing dust/ fume/ gas/ mist/vapors/ spray.

P305 + P351 + P338: IF IN EYES: Rinse appropriately with water for several minutes.
Remove contact lenses if they are present and easy to do. Continue rinsing.

Supplemental Hazard none Statement

As per the European Directive 67/548/EEC as amended- Hazard symbol(s) R-phrase(s)

R36/37: The substance irritates the eyes and respiratory system.

S-phrase(s)

S26: In case of contact with the eyes, rinse with water and seek medical advice.

S36: Wear protective clothing.

Caution - The substance still needs to be tested thoroughly.

Other Hazards – none

3. Composition/Information on Ingredients Substances

Synonyms: Carbon Nanotubes

Component Concentration

Carbon Nanotubes

CAS-No. 308068-56-6

4. First Aid Measures

Description of first aid measures

General advice

Consult a physician. Show the safety data sheet to the doctor.

If inhaled

If breathed in, move the person into the air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap along with water. Consult a doctor.

In case of eye contact

Wash with water for a minimum of 15 minutes and consult a physician.

If swallowed

When someone is unconscious, please do not give them anything to eat or drink. Instead, rinse their mouth with water and seek medical advice.

To our knowledge, the chemical, physical, and toxicological properties have yet to be thoroughly investigated.

Indication of any medical attention or special treatment needed. No data available

5. Fire Fighting Measures

Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemicals, or CO₂.

Special hazards arising from the substance

Carbon oxides

Advice for fire-fighters

Wear a self-contained breathing apparatus for firefighting if necessary.

6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist, or gas.

Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions

Do not let the product enter into the drains.

Methods for containment and cleaning up

Please pick up and dispose of the material in a way that prevents the creation of any dust.

Sweep up. Keep in suitable, closed containers for disposal.

7. Handling & Storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid the formation of dust and aerosols.

Provide appropriate exhaust ventilation where dust is formed—average measures for preventive fire protection.

Conditions for safe storage, including any incompatibilities

Store the container in a dry, well-ventilated, cool place with a tight seal.

Specific end uses: no data available

8. Exposure Controls

Control Parameters

Components with workplace control parameters

Exposure Controls

Appropriate engineering controls

Handle by proper industrial hygiene and safety practices. Wash hands before breaks and at the end of the workday.

Personal protective equipment

Eye/face protection

Safety glasses with side shields conforming to EN166. Use equipment for eye protection that is tested as well as approved under appropriate government standards, including NIOSH (US) or EN 166(EU).

Skin Protection

Handle using gloves. Gloves must be inspected before use. Use proper glove removal technique (without touching the glove's outer surface) in order to avoid skin contact with this product. Dispose of the gloves after use by applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves must fulfill the requirements of the EU Directive 89/686/EEC and the standard EN 374.

Body Protection

Impervious clothing is the type of protective equipment that must be selected according to the concentration of dangerous substances at the workplace.

Respiratory Protection

Use type P95 (US) and type P1 (EU EN 143) particle respirators for nuisance exposures. Use type OV/AG/P99 (US) or order ABEK-P2 (EU EN 143) respirator cartridges for higher-level protection. Use respirators and components tested as well as approved under government standards such as NIOSH (US) or CEN (EU).

9. Physical & Chemical Properties

Information on basic physical and chemical properties

- a) Appearance Form: solid
- b) Odor: no data available
- c) Odour Threshold: no data available
- d) pH: no data available
- e) Melting point/freezing point: 36052 - 3697 °C
- f) Initial boiling point and boiling range: no data available
- g) Flash point: no data available
- h) Evaporation rate: no data available
- i) Flammability (solid, gas): no data available
- j) Upper/lower flammability or explosive limits: no data available
- k) Vapor pressure: no data available
- l) Vapor density: no data available
- m) Relative density: no data available
- n) Water solubility: insoluble
- o) Partition coefficient: n-octanol/water: no data available
- p) Auto-ignition temperature: no data available

- q) Decomposition temperature: no data available
- r) Viscosity: no data available
- s) Explosive properties: no data available
- t) Oxidizing properties: no data available

10. Stability & Reaction

Reactivity: No Data Available

Chemical stability: no data available

Possibility of hazardous reactions: no data available

Conditions to avoid: no data available

Incompatible materials: Strong Oxidizing Agents

Hazardous decomposition products

Other decomposition products - no data available

11. Toxicological Information

Routes of Entry – Inhalation, Ingestion

Toxicity to Animals:

LD50 (Oral, rat): >2000mg/Kg (Graphene)

LC50 (Inhalation, rat): No data available

Chronic Effects on Human

Causes Damage to the following organs: Upper respiratory tract. It may cause damage to the next.

Other Toxic Effects on Humans: A bit hazardous if contacted with skin, ingestion, or inhalation.

Special Remarks on Toxicity of Animal - No data available

Special Remarks on Chronic Effects on Humans: No data available

Special details on Other Toxic Effects on Humans: Nuisance Dust. Acute Potential Health Effects: Skin: Causes irritation on skin. Eyes: dust causes eye irritation

Inhalation: This may be harmful if inhaled. Dust causes respiratory tract and mucous membrane irritation.

Ingestion: May be harmful if swallowed. It may cause gastrointestinal (digestive) tract irritation with nausea and vomiting. Chronic Potential Health Effects: Inhalation of high concentrations of graphene dust over prolonged periods may cause pneumoconiosis. Symptoms can include cough, shortness of breath, and decreased pulmonary function. Pre-existing pulmonary disorders such as emphysema may be increased by lengthened exposure to high concentrations of Carbon nanotube dust. This toxicology of the substance has yet to be thoroughly investigated.

12. Ecological Information

Toxicity: No data available
Persistence and degradability: No data available
Bioaccumulative potential: No data available
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

Offer surplus as well as non-recyclable solutions to a licensed disposal company. Contact a professional waste disposal service to dispose of this material. Dissolve the material with a combustible solvent and burn it in a chemical incinerator equipped with an afterburner and scrubber.
Contaminated packaging: Dispose of as unused product

14. Transport Information

UN number

ADR/RID: - IMDG: - IATA: -
UN proper shipping name
ADR/RID: Not dangerous goods
IMDG: Not dangerous goods
IATA: Not dangerous goods

Transport hazard class(es)

ADR/RID: -
IMDG: - IATA:
Packaging group
ADR/RID: -
IMDG: -
IATA:

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no
Special precautions for user: no data available

15. Regulatory Information

This safety data sheet contains the Regulation (EC) No. 1907/20 requirements.

Safety Health & Environmental Regulations/Legislation specific for the substance or mixture: No Data Available

Chemical Safety Assessment: No Data Available

16. Other Information

The provided information is incomplete and should only be used as a reference. The information mentioned in the document is based on the present state of our knowledge and applies to the product about proper safety precautions. It does not represent any kind of guarantee of the properties of the product. Techinstro shall not be held liable for any damage from handling or contact with the above product. See techinstro.com and the reverse side of the invoice or packing slip for additional terms and conditions of sale.