

# ART SAND

Adsorption material containing carbon nanotubes

## SAFETY DATA SHEET

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND BUSINESS/COMPANY

**Commercial name:** ART SAND

**Product type:** Adsorption material on carbon nanotube basis

**Company address:** ART CARBON s.r.o.  
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### 2. HAZARD IDENTIFICATION

This product is not hazardous to health and the environment according to EC Regulation No. 1272/2008 and OSHA GHS 29 CFR 1910.1200.

**Hazard classification:** not classified

#### Label elements including precautionary statements:

- Pictograms: invalid
- Signal words: invalid
- Hazard information: invalid
- Precautionary statements:
  - P 233 Keep the lid tightly closed.
  - P260 Do not inhale dust/fume/gas/mist/vapors/spray.
  - P273 Avoid release to the environment.
  - P280 Wear protective gloves/eye protection/face protection.

#### Other risks not classified:

Danger of explosion: When the product is dry, dust can form an explosive mixture with air.

### 3. COMPOSITION AND INGREDIENTS INFORMATION

Water (50%), silica sand (<25%) and MWCNT on cellulose support (<25%).

### 4. FIRST AID INSTRUCTIONS

**Skin contact:** Remove contaminated clothing immediately. Wash contaminated skin with soap and lukewarm water. If irritation occurs, contact a doctor.

Eye contact:	Keep the eye open and rinse with plenty of water for at least 10 minutes. Seek medical advice if pain, blurred vision, swelling, burning or redness occurs/persists.
Inhalation:	If vapors/dust are inhaled, move the affected person to fresh air, keep warm and allow him/her to rest. If breathing difficulties occur, oxygen mask can be used and medical advice has to be sought.
Ingestion:	Do not induce vomiting. Rinse your mouth with water and then drink sip water to remove the taste from your mouth. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head deep forward to prevent inhalation. Get medical attention.

## 5. FIRE-FIGHTING INSTRUCTIONS

Suitable extinguishing media:	water fog, foam, carbon dioxide, dry chemicals
Unsuitable extinguishing media:	High volume water jet
Specific risks:	-
Protective equipment:	Wear self-contained breathing apparatus and suitable protective equipment.
Combustion products:	May produce toxic fumes, carbon monoxide, carbon dioxide, metal oxides.

## 6. ACCIDENTAL RELEASE MEASURES

Human safety measures:	The cleaning crew must be equipped with appropriate protective equipment (see section 8). The material can create slippery surfaces. Avoid explosive dust/air mixture.
Environmental protection measures:	Collect for disposal. Avoid release to natural waters, sewers and biological wastewater treatment plants. Remove contaminated soil.
Accidental leak instructions:	Soak up with adsorbent such as clay, sand or other suitable materials. Treat contaminated areas with caution (slippery surfaces). If the material is dry, dispose of it by vacuuming with a Hepa filter or wipe with a damp cloth. Avoid dust formation. Use sealable packaging for this purpose.

## 7. HANDLING AND STORAGE

**Handling:** Heating of material to high temperatures (> 80 ° C) may result in gases and dust. For such operating conditions it is necessary to ensure good ventilation of the working area. Avoid dust formation (if material is dry). Contact with skin, eye and respiratory dust (if material is dry) should be avoided at all times. Handle in accordance with good industrial hygiene and safety regulations. Wash your hands with soap before eating, drinking, smoking, applying cosmetics or using toiletries.

**Storage:** Keep only in the original sealed containers at the designated places. Store in a cool, dry place with adequate ventilation. Keep away from open flames and high temperatures. Storage temperature is between 5-30 ° C. Avoid freezing.

## 8. EXPOSURE CONTROL / PERSONAL PROTECTION

### Personal protection

**Hand protection:** Protective gloves, suitable materials for safe gloves - EN 374-3: Nitrile rubber (NBR;> 0.35 mm). Unsuitable materials: do not use neoprene gloves, neoprene absorbs nanoparticles.

**Skin and body protection:** Wear gloves and other clothing necessary to prevent skin contact.

**Respiratory protection:** Wear suitable respiratory equipment with high performance dust cassette with P3 filter when the product is warm or dry.

**Eye protection:** Chemical goggles or safety goggles.

In case of a contact, ensure immediate removal from eyes, skin and clothing. Wash hands and other affected areas with soap and water before eating, drinking, smoking or before leaving work. Institutions / companies working with this material should be equipped with a device for easy washing. Replace contaminated clothing immediately.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state and color:** black pasty suspension  
**Odor:** odorless  
**Melting point/range:** 0°C  
**Boiling point/range:** 100°C  
**Saturated vapor pressure:** approx. 18 mm Hg at 20°C  
**Density:** 1 g/cm<sup>3</sup> at 20°C  
**Solubility in water:** soluble, resp. dilutable  
**Viscosity:** not determined  
**pH:** 7-11  
**Danger of explosion:** Product is not explosive

Note: The physical properties listed above are typical values and should not be used as specifications.

## 10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions and handling.
Materials to avoid:	Strong oxidizing and reducing agents.
Conditions to avoid:	Temperatures above 80 °C. Avoid dust formation when the product is dry.
Hazardous decomposition:	No hazardous decomposition products known at room temperature are known (see section 5). Thermal decomposition or combustion can produce smoke containing carbon oxides and low molecular weight organic compounds.

## 11. TOXICOLOGY INFORMATION

No data available for this product.

Toxicology data for individual components:

**Short MWCNT** obtained by catalytic gas-phase deposition-synthetic carbon of tubular nature)

Acute toxicity, oral:	LD50, mouse > 5000 mg/kg
Acute toxicity, dermal:	LD50, mouse > 2000 mg/kg
Genotoxicity:	Non-mutagenic (Ames test)
Skin irritation/corrosion:	No irritation and corrosivity.
Sub-chronic toxicity:	Inhalation, repeated dose, 5 days, mouse, LOAEC: 2 mg/m <sup>3</sup> Target organ: lung (pneumonia) Inhalation, repeated dose, 90 days, mouse, LOAEC: 0.1 mg/m <sup>3</sup> Target organ: lung (multifocal granulomatous inflammation) Oral administration, repeated dose, 28 days, mouse, NOAEL: 0.5 mg/kg
Carcinogenicity:	No carcinogenic response (Two-year bioassay in rat's peritoneal cavity).
Possible Hazards:	May be harmful if inhaled.

## 12. ECOLOGY INFORMATION

No data available for this product.

**Toxicological data for individual components**

**Short MWCNT** (obtained by catalytic gas-phase deposition-synthetic carbon of tubular nature).

Biodegradability:	Biodegradability is not expected.
Short term toxicity:	Fish, Danio rerio, 14 days, EC50>100 mg/ml

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Invertebrates, Daphnia magna, fresh water, 48h, EC50> 100 mg/l  
Algae, Desmodesmus subspicatus, fresh water, 72h, EC50: 134 mg/l

Long term toxicity: Fish, Danio rerio, semi static, EC10: 100 mg/l  
Invertebrates, Daphnia magna, semi static, NOEC> 25 mg/l

Environmental protection: Do not allow to enter soil, sewerage, drains.

### 13. DISPOSAL INSTRUCTIONS

Product: Dispose of in accordance with valid international, national, and local laws and regulations.

Packaging material: Empty packaging may be landfilled as long as it complies with the environmental regulations and local and national regulations.

### 14. TRANSPORT INFORMATION

This product is not considered hazardous under national and international rules governing road, rail, air and sea transport.

### 15. REGULATIONS INFORMATION

REACH Status: The substances in this product have been re-registered/registered according to EEC REACH 1907/2006.

The REACH registration number for the short MWCNT is 01-2119879048-26-0001.

This product contains one or more substances subject to TSCA Section 5 (e) which imposes certain restrictions on handling, storage, distribution, use and disposal.

GHS Labeling (CLP / OSHA)

Symbols: -

H phrases: -

P-phrases: P 233 Keep container tightly closed.  
P260 Do not breathe dust / fume / gas / mist / vapors / spray.  
P273 Avoid release to the environment.  
P280 Wear protective gloves / protective clothing / eye protection / face protection.

### 16. ADDITIONAL INFORMATION

The content and format of this safety data sheet are in accordance with REACH 1907/2006 Article 32., Regulation (EC) No 1272/2008 (CLP / GHS) and OSHA GHS Regulation 29 CFR 1910.1200 and its amendment regulations.



Safety data Sheet: ART-SAND  
according to the commission order 830/2015  
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**Disclaimer:**

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