SAFETY DATA SHEET

According to 1907/2006/EC (REACH), 2015/830/EU

03. November 2020

Version 1

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

1.1 Product Identifier

Identification of the substance:	Nitrogen-doped graphene-like carbon
CAS number:	7440-44-0
EC number:	231-153-3
REACH Registration:	A registration number is not available for this substance as the annual tonnage does not require a registration

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

Identified uses:	Laboratory chemicals
Uses advised against:	Food, drug, pesticide or biocidal product use

1.3 Details of the Supplier of the safety data sheet

Manufacturer:	UP Catalyst OÜ
Street address:	Akadeemia tee 23, Tallinn 12618, Estonia
Phone:	+372 5329 2353
E-mail:	info@upcatalyst.com

1.4 Emergency telephone number

Emergency telephone number:	112

SECTION 2: Hazards identification Classification of the substance or mixture

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008:

Not classified.

2.2 Label elements

Hazard pictograms:	None
Signal word:	None
Hazard statements:	None
Precautionary statements:	None

2.3 Other hazards

None.

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms: N-doped graphene-like carbon

CAS number: 7440-44-0

EC number: 231-153-3

3.2 Mixtures

Not applicable.

SECTION 4: First aid measures

4.1 Description of first-aid measurements

After skin contact:	Remove contaminated clothing immediately. Wash contacted skin areas with plenty of cold to lukewarm water and soap. If irritation develops, consult a physician.
Eye contact:	Hold the eyes open and rinse with water for a sufficiently long period of time (at least 10 minutes). Obtain medical attention if pain, blurred vision, swelling, burning or redness persist.
After inhalation:	If high concentration of dust is inhaled, move the person into fresh air, keep warm and allow to rest. If breathing is difficult, oxygen may be administered, and medical attention should be obtained.
Ingestion	Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Obtain medical attention.

4.2 Most important symptoms and effects, including acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:	Water fog, Foam, Carbon Dioxide, Dry Chemical.
Unsuitable extinguishing media:	High volume water jet.
Specific hazards:	Dust may form explosive mixture with air.
Protective equipment:	Wear self-contained breathing apparatus. Wear suitable protective clothing.
Combustion products:	May form toxic fumes, carbon monoxide, carbon dioxide, metal oxides.

5.2 Special hazards arising from the substance or mixture

Hazardous Decomposition Products: Carbon dioxide. Carbon monoxide.

5.3 Advice for firefighters

In case of fire wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: Equip cleanup crew with proper protection (see chapter 8). Ensure adequate ventilation/exhaust extraction. Prevent formation of explosive dust-air mixture.

6.2 Environmental precautions

Environmental precautions: Collect for disposal. Avoid discharge to natural waters, sewers and biological wastewater treatment plants.

6.3 Methods and material for containment and cleaning up

Spill procedures:	Collect the spill material using a vacuum with HEPA filter or damp sweep. Avoid formation of dust. Use sealable dedicated containers.

6.4 Reference to other sections

See section 8 for protective equipment requirements.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Contact with skin and eyes and inhalation of dust must be avoided under all circumstances. Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. Wash hands with soap and water before eating, drinking, smoking, applying cosmetics, or using toilet facilities.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in the original closed container in a dedicated place. Store in dry, cool, well-ventilated area. Keep container tightly closed. Provide adequate ventilation to minimize dust concentrations. Keep away from open flames and high temperature.

7.3 Specific end use(s)

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

No official Occupational Exposure Limit has yet been established. Obtain special instructions before use.

Remark: DNEL (Derived No Effect Level) – Multi-walled carbon nanotubes – long term exposure: 0.05 mg/m^3

8.2 Exposure controls:

Hand protection:	Protecting gloves: Suitable materials for safety gloves/ EN 374-3: Nitrile rubber (NBR; > 0.35 mm). Unsuitable material: do not wear neoprene gloves, as neoprene absorbs nanoparticles.
Skin and body protection:	Wear gloves and other clothing as required to avoid contact.
Respiratory protection:	Wear suitable respiratory equipment with high efficiency dust cartridge a P3 filter when directly exposed or handling the powder.
Eye protection:	Chemical goggles or safety glasses.

In case of contact, ensure prompt removal from eyes, skin and clothing. Wash hands and other exposed areas with mild soap and water before eating, drink or smoke and leaving work. Facilities storing or utilizing this material should be equipped with an eyewash facility. Change contaminated clothing immediately.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	Solid
Appearance:	powder
Color:	Black
Odor:	Odorless
Melting point/range:	No data available
Boiling point/range:	No data available
Vapor pressure:	No data available
Bulk density:	No data available
Solubility in water:	Insoluble
Viscosity:	No data available
Ph:	No data available
Explosibility class:	No data available
Explosive properties:	No data available
Smouldering temperature:	No data available
Minimum ignition energy:	No data available
Lower explosion limit:	No data available

NOTE: The physical data presented above are typical values and should not be construed as a specification.

9.2 Other information

No data available

SECTION 10: Stability and Reactivity

10.1 Reactivity

10.2 Chemical stability

Stability:	Stable under normal handling and storage conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions:	None under normal processing. Can react with strong oxidizing agents.

10.4 Conditions to avoid

Conditions to avoid:	Exposure to moisture. Avoid dust formation.

10.5 Incompatible materials

Materials to avoid:	Strong oxidizing and reducing agents.

10.6 Hazardous decomposition products

Hazardous decomposition:	No hazardous decomposition products known at room temperature (see also section 5).

SECTION 11: Toxicological information

11.1 Information on toxicological effects:

Acute toxicity, oral:	No data available
Acute toxicity, dermal:	No data available
Genotoxicity:	No data available
Skin irritation/corrosion:	No data available
Sub-Chronic toxicity:	No data available
Carcinogenicity:	No data available
Possible hazards:	May be harmful if inhaled

SECTION 12: Ecological information

12.1 Toxicity

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

13.1.1 Product

Dispose in accordance with applicable international, national and local laws, ordinances and statutes. For disposal within the EC, use the appropriate code according to the European Waste Catalogue (EWC).

13.1.2 Container

Empty containers can be landfilled after they have been emptied as thoroughly as possible, when in compliance with the Environmental Protection Regulation and with local, state and federal regulations.

SECTION 14: Transport Information

According to national and international guidelines, which regulate the road-, rail-, air-, and sea transport, this product is classified as not dangerous.

SECTION 15: Regulatory information

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

Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Non-applicable

Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non applicable

Article 95, REGULATION (EU) No 528/2012: Non-applicable

REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

Other legislation:

The product could be affected by sectorial legislation.

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance.

SECTION 16: Other information

The contents and format of this SDS are in accordance with EEC Regulation REACH 1907/2006 art.32 and EEC Regulation 1272/2008 (CLP/GHS), and its amendments.

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