

NANOGRAFI NANOTECHNOLOGY

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

1.1 Product identifiers

Product Form	Substance
Trade Name	Carbon Black Powder, Purity: 99.99 %, Size: 4 µm
Product Number	NG01EM1501
CAS Number	1333-86-4

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

Use of the substance/mixture	Research
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1.3 Details of the supplier of safety data sheet

Company	Nanografi Nanotechnology
Address	ODTÜ Teknokent İkizler Binası B-1/H ODTÜ Teknokent 06531- ANKARA
Phone	+90 312 285 85 09
Fax	+90 312 210 13 09

1.4 Emergency Telephone Number

Emergency Telephone Number	+90 312 285 85 09
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SECTION 2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

H351	Carcinogenicity (3)
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For the full text of the H-Statements mentioned in this Section, see Section 16.

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2.2 Label Elements

Hazard Pictograms



Signal Word

Warning

Hazard Statements

H351 Suspected of causing cancer.

Precautionary Statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P308 + P313 If exposed or concerned: Get medical advice/ attention.

P405 Store locked up.

P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Other Hazards

Combustible dust.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Synonyms

Carbon Black, Acetylene Black

Formula

C

CAS Number

1333-86-4

3.2 Mixtures

Not applicable.

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SECTION 4 FIRST AID MEASURES

4.1 Description of first aid measures

General Advice	Move out of the dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance
First-aid measures after inhalation	Provide fresh air. If not breathing, give artificial respiration. Consult a physician.
First-aid measures after skin contact	Wash off with plenty of water. Consult a physician.
First-aid measures after eye contact	Rinse with plenty of water as a precaution.
First-aid measures after ingestion	Clean mouth with water. Never give anything by mouth to an unconscious person. Consult a physician.

4.2 Most important symptoms and effects, including acute and delayed

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

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

4.4 Other Information

No data available.

SECTION 5 FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing Media	Water spray. Carbon dioxide (CO ₂). Alcohol-resistant foam. Dry powder.
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5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting	No data available.
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Special protective equipment for firefighters

Wear self-contained breathing apparatus.

5.4 Further Information

No data available.

SECTION 6 ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures**

Personal Precautions

Ensure adequate ventilation. Wear personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and material for containment and cleaning up

Use mechanical handling equipment. Avoid dust formation. Pick up and transfer to properly labelled containers. Adequate disposal.

6.4 Reference to other sections

For further information refer to section 13.

SECTION 7 HANDLING AND STORAGE**7.1 Precautions for safe handling**

Precautions for Safe Handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dust. The potential for combustible dust formation

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should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed.

Advice on Protection Against Fire and Explosion

Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place.

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**

Ingredient	Authority	Type	Limit
Carbon Black	OSHA	Limits for Air Contaminants	3.500000 mg/m ³ (TWA)

8.2 Exposure controls

Appropriate Engineering Controls Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

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

Eye Protection Eye protection (EN 166).

Skin and Body Protection Impervious clothing. The type of protective equipment must be selected according to the concentration and

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Respiratory Protection	amount of the dangerous substance at the specific workplace. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Protective Measures	Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower. Handle in accordance with good industrial hygiene and safety practice.
Environmental Exposure Controls	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties**

Physical State	Solid
Appearance	Powder
Color	Black
Odor	No data available
Odor Threshold	No data available
pH	No data available
Relative Evaporation Rate	No data available
Melting Point	3,654 - 3,697 °C
Freezing Point	3,654 - 3,697 °C
Boiling Point	No data available
Flash Point	No data available
Auto-ignition Temperature	No data available
Decomposition Temperature	No data available

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Flammability (solid, gas)	No data available
Vapor Pressure	No data available
Relative vapor density at 20°C	No data available
Relative Density	No data available
Solubility in H2O	No data available
Log Pow	No data available
Viscosity, Kinematic	No data available
Viscosity, Dynamic	No data available
Explosive Properties	No data available
Oxidizing Properties	No data available
Explosive Properties	No data available

9.2 Other information

No other information available.

SECTION 10 STABILITY AND REACTIVITY**10.1 Reactivity**

No data available.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

Strong oxidizing agents.

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10.6 Hazardous decomposition products

Thermal decomposition

-Carbon dioxide. Carbon monoxide.

SECTION 11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity	Not classified.
Skin corrosion/irritation	Not classified.
Serious eye damage/irritation	Not classified.
Respiratory or Skin Sensitization	Not classified.
Germ Cell Mutagenicity	Not classified.
Carcinogenicity	IARC: 2B - Group 2B: Possibly carcinogenic to humans (Carbon black). Route: Inhalation No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive Toxicity	Not classified.
STOT-Single Exposure	Not classified.
STOT-Repeated Exposure	Not classified.
Aspiration Hazard	Not classified
Other Information	To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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SECTION 12 ECOLOGICAL INFORMATION

12.1 Toxicity

Ecology-general	No data available.
Acute aquatic toxicity	Not classified.
Chronic aquatic toxicity	Not classified.

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

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

No data available.

SECTION 13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product	Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix
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the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated Packaging

Dispose of as unused product.

SECTION 14 TRANSPORT INFORMATION

Safe to carry by any means of transportation. Not restricted any mode of transportation.

SECTION 15 REGULATORY INFORMATION**15.1 Safety, health and environmental regulations****SARA 302 Components**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold reporting levels established by SARA Title III, Section 313.

Massachusetts Right to Know Components

Carbon black CAS# 1333-86-4

California Prop. 65 Components

WARNING! This product contains a chemical known to the State of California to cause cancer.

Carbon black CAS# 1333-86-4

SECTION 16 OTHER INFORMATION**16.1 Abbreviation of acronyms**

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008

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IATA	International Air Transport Association
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
PBT	Persistent Bioaccumulative Toxic
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
vPvB	Very Persistent and Very Bioaccumulative

16.2 Full text of H-statements

H351 Suspected of causing cancer.

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.