Nordische

ActiveMaterials

Version1.9

2024

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We create industry-friendlytechnologiesthatenabletheuseofgraphenematerialsina vast variety of applications and industries.

Ourcorefocusison**energystorageapplications,coatings&compositesand advanced water solutions.**

Multi-Walled Carbon Nano tube

MWCNTarepreparedbythelow-costbiofuelcombustionmethodfollowedbypurification.Multi-walled carbon nanotubes (MWCNTs) are cylindrical nanostructures consisting of multiple graphene layers rolled into concentric tubes. Each graphene layer, a sheet of carbon atoms in a hexagonal lattice, is stacked with an interlayer distance of about 0.34 nm. MWCNTs can be seen as nested single-walled carbon nanotubes (SWCNTs). Their diameters range from 2 nm to 100 nm, with lengths extending up to several micrometres. This unique structure endows MWCNTs with remarkable mechanical, electrical, and thermal properties.

MWCNT

Specifications

MWCNT	DESCRIPTION
INGREDIENTS	Carbon
PURITY	99%
DIAMETER	10-20nm
AVERAGELATERAL DIMENSION(X&Y)	~10µm
CASNO.	7782-42-5
ODOUR	Odorless
COLOUR	Black Powder

The properties of this product and are:

- High Aspect Ratio.
- Dispersed much easier.

- Smalladditionwillimprovethepropertiesofthematrixtoimproveelectricallyconductive.
- Improves thermal conductivity.
- Improves mechanical stability.

Applications

Small enforcement can improve the properties of polymers.

Improve mechanical, electrical properties of paints& coatings

Used to make sensors, fuel cells, shield coatings, highly conductive ink.

Used to improve the properties of thermoset, thermoplastics

Safety and Storage

- Double-sealed, moisture-free, plastic bottle.
- Store in dry and at room temperature.

Acid Functionalized MWCNT

Multi-walled carbon Nano tubes from (MWCNT) are a highly porous material and has a hollow structure, high surface area, thermal stability, good thermal and electrical conductivity and optical activity, as well as mechanical damage resistance. Acid group functionalization using $HNO_3+H_2SO_4$ has been done to MWCNT on which further treatment is done to introduce the -OH group at the edges and surfaces with multiple quality checks.

Acid Functionalized MWCNT(NAM-9-1)

Specifications

ACIDFUNCTIONALIZED MWCNT	DESCRIPTION
INGREDIENTS	Carbon
PURITY	99%
DIAMETER	10-20nm
AVERAGELATERAL DIMENSION(X&Y)	~10µm
ODOUR	Odourless
COLOUR	BlackPowder

The properties of this product are:

- Dispersed much easier.
- It has excellent dispersion and compatibility with polar solvents.
- Small Addition will improve the properties of matrix and Improves electrically conductive.
- Improves thermal conductivity.
- Improves mechanical stability.

Applications

Small enforcement can improve solar cells and batteries

Improve nano electronics, transistors

Used to make energy storage and flat panel display

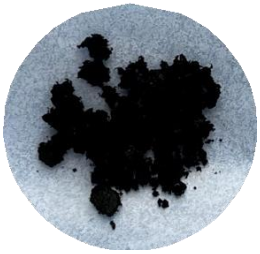
Used to improve the properties of thermoset, thermoplastics composites

Safety and Storage

- Double-sealed ,moisture-free, plastic bottle.
- Store in dry and at room temperature.

Base Functionalized MWCNT

Multi-WalledCarbonNanotubes(MWCNT)areahighlyporousmaterialandhasahollow structure, high surface area, thermal stability, good thermal and electrical conductivity and optical activity, as well as mechanical damage resistance. Hydroxyl group functionalizationtoMWCNTonwhichfurthertreatmentisdonetointroduce-OHgroup at the edges and surfaces with multiple points of quality checks.



Base Functionalized MWCNT

Specifications

BASE FUNCTIONALIZED MWCNT	DESCRIPTION
INGREDIENTS	Carbon
PURITY	99%
DIAMETER	10-20nm
AVERAGELATERAL DIMENSION(X&Y)	~10µm
ODOUR	Odorless
COLOUR	BlackPowder

The are properties of this product are:

- High Aspect Ratio.
- Dispersed much easier.

- Hydroxyl groups are compatible with a number of polymers, including alkene and resin chemistries and much more.
- Smalladditionswillimprovethepropertiesofthematrixtoimproveelectrical conductivity.
- Improves thermal conductivity and mechanical stability.

Applications

Small enforcement can improve solar cells and batteries

Improve nano electronics, transistors

Used to make energy storage and flat panel display

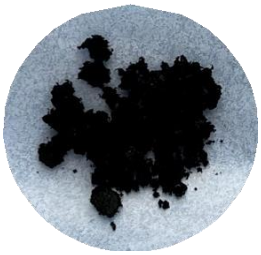
Used to improve the properties of thermoset, thermoplastics composites

Safety and Storage

- Double-sealed, moisture-free, plastic bottle.
- Store in dry and at room temperature.

Few Layered Graphene

Few-layer graphene powder is prepared by low cost advanced synthesis method for different application including battery.



FewLayerGraphene

Specifications

FEWLAYERGRAPHENE	DESCRIPTION
INGREDIENTS	Carbon
PURITY	99%
DIAMETER	10-20nm
ODOUR	Odorless
COLOUR	Black Powder

The properties of this product are:

- Ultralow weighted,
- Less defected Honey Comb
- 2dCarbonStructure

Applications

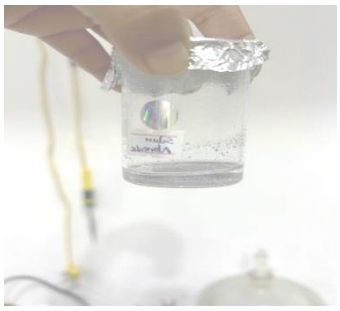
- Additives And R&D applications
- Polymer/metal oxide composites
- Electrically Conductive polymers
- Battery cathodes & Membranes for water

Safety and Storage

- Double-sealed, moisture-free, plastic bottle.
- Store in dry and at room temperature.

Silver Nano wire

The synthesis of silver nanowires with tailored morphology and surface chemistry enables the development of efficient catalysts for applications such as fuel cells, hydrogen production, and organic synthesis.



Silver Nanowire

Specifications

SILVER NANOWIRE SPECIFICATIONS	DESCRIPTION
SURFACE MORPHOLOGY	Smooth
PURITY	99%
DIAMETER	10-20nm
AVERAGELATERAL DIMENSION(X&Y)	10-20µm
ODOUR	Odorless
COLOUR	Grey

There are several advantages of this product and they are:

- High Electrical conductivity
- Good Thermal Conductivity

Applications

- Touch screens& Displays
- Conductive Inks & Pastes
- Solar cells& Fuel Cells
- Batteries & Super Capacitors

Safety and Storage

- Double-sealed, moisture-free, plastic bottle.
- Store in dry and at room temperature.

Iron Oxide Nanoparticles

Iron oxide nano particles can be used as a coagulant to remove contaminants fromwater. It will help to disinfecting water and controlling the growth of harmful pathogens. It's synthesized by Co-Precipitation Method.

Iron Oxide Nano particle

Specifications

IRON OXIDE SPECIFICATIONS	DESCRIPTION
COMPOSISTION	Magnetite
PURITY	98%
DIAMETER	10-20nm
ODOUR	Odorless
COLOUR	Brown Powder

The Properties of this product and they are:

- Small in size.
- High surface area to volume ratio.
- Surface modifiability.
- Magnetic properties & great biocompatibility.
- Low Toxicity

Applications

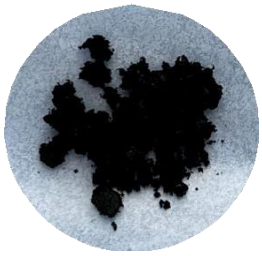
- Water Treatment
- Paints and Coatings
- Batteries
- Super capacitors

Safety and Storage

- Double-sealed , moisture-free, plastic bottle.
- Store in dry and at room temperature.

Nickel oxy hydroxide

Nickel oxy hydroxide suitable for use as a positive electrode material in rechargeablebatteries, contributing to the development of efficient and high-performance energystorage devices. Nickel oxy hydroxide is a key material used in the positive electrode(cathode) of nickel-based rechargeable batteries, such as nickel-metal hydride (Ni- MH) batteries and nickel-hydrogen (Ni-H2) batteries.



Nickel oxy hydroxide particle

Specifications

NICKEL OXY HYDROXIDE SPECIFICATIONS	DESCRIPTION
COMPOSISTION	Magnetite
PURITY	98%
DIAMETER	100nm
ODOUR	Odorless
COLOUR	Black Powder

The Properties of this product and they are:

- Small in size.
- Good catalytic activity
- Layered structure
- Adsorption

Applications

- Catalyst in OER
- Rechargeable Batteries
- Sensors
- Super capacitors

Safety and Storage

- Double-sealed , moisture-free, plastic bottle.
- Store in dry and at room temperature.

Silver Nanoparticle

Green synthesized Silver nanoparticles (AgNPs) have garnered significant attention due to their unique physical, chemical, and biological properties. These properties make them suitable for various applications in fields such as medicine, electronics, and environmental science.

Silver Nanoparticles

Specifications

SILVER NANOPARTICLES SPECIFICATIONS	DESCRIPTION
COMPOSISTION	Silver
PURITY	98%
DIAMETER	1-100nm
ODOUR	Odorless
COLOUR	Black Powder

The Properties of this product and they are:

- Small in size.
- Good catalytic activity
- Layered structure
- Adsorption

Applications

- Water Treatment
- Removal of Pollutants
- Coatings

Safety and Storage

- Double-sealed , moisture-free, plastic bottle.
- Store in dry and at room temperature.

DISCLAIMER: *The values are typical and are for general guidance and must not be used as a basis for specificationsasconcrete.Informationcontainedinthispublication,andotherwisesuppliedtousers,isbased onourgeneral experience and is giveningood faith,but weareunable to accept responsibilityinrespect of factors which are outside our knowledge or control. No warranty, either expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. Please refer to MSDS of the respective product for safe use.*

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