# Carbon Powder RT-DND

## Material Safety Data Sheet

### Section 1  Product identification
- **Product name:** RT-DND, purified nanodiamond powder of detonation synthesis, non-modified surface. Code: 110
- **Product use:** In fine polishing compounds, lubricants, polymers, coatings and various composite materials; R&D

### Section 2  Hazard Identification
- **GHS:** Non-classified as hazardous. Physical, health, environment and other hazards have not been detected.
- **Label elements:** According to GHS directives or national laws the product does not need to be labeled.

### Section 3  Composition / Information on Ingredients
- **Pure carbon powder consisting of primary particles with cubic diamond lattice and the size of 3.5 - 5.5 nm**
- **Nanodiamonds**
  - **CAS #: 7782-40-3**
  - **Surface functional groups containing O, H, N:** No detected impurities

### Section 4  First-aid measures
- **Inhalation:** If breathed in, move person into fresh air. If not breathing give artificial respiration and seek physician help.
- **Skin contact:** Harm from skin contact has not been detected. Rinse with running water and soap.
- **Eye contact:** Hold the eyelids apart with clean hands and flush with running water for at least 15 minutes.
- **Ingestion:** Wash the mouth out with water. In case of nausea or other symptoms, seek medical assistance.

### Section 5  Fire-fighting measures
- **Suitable extinguishing media:** Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- **Specific hazards:** No data available.
- **Special protective equipment:** No special requirements.

### Section 6  Accidental release measures
- **Personal precautions:** Ensure adequate ventilation and avoid breathing dust.
- **Environmental precautions:** No special requirements.

### Section 7  Handling and storage
- **Methods for cleaning-up and recovery:** Pick up carefully avoiding the dusting. Keep in closed container for recovery.
- **Safe handling advice:** Normal safety procedures for handling chemicals; avoid dusting; provide ventilation.
- **Storage:** Keep material in closed containers and store in a dry area at room temperature.

### Section 8  Exposure controls / Personal protection
- **Control parameters e.g. occupational exposure limit values or biological limit values:** Unknown.
- **Respiratory protection:** A dust mask Type N95 (US) or Type P1 (EN 143) respirator.
- **Hands protection:** Handle with gloves.
- **Eye protection:** Use safety glasses.
- **Body protection:** Regular laboratory clothes.

### Section 9  Physical and chemical properties
- **State:** Powder.
- **Color:** Light gray.
- **Odor:** Odorless.
- **Bulk density:** 3.2 g/cm^3.
- **Average grain size:** 3.5 - 5.5 nm.

### Section 10  Stability and reactivity
- **Flammability:** Product is not flammable.
- **Flash point:** 480 °C.
- **Other physical and chemical properties:** Not determined.

### Section 11  Toxicological information
- **Acute toxicity:** At inhalation, ingestion, skin and eye contact. No data indicating acute toxicity.
- **Likely routes of exposure:** Does not irritate the skin; may cause irritation at inhalation, ingestion and eye contact.
- **Symptoms related to the physical, chemical and toxicological characteristics:** No data available.

### Section 12  Ecological information
- **Ecotoxicity:** Non-toxic.
- **Mobility, persistence and degradability and bioaccumulative potential:** Unknown.
- **Other hazardous effects:** No effects known.

### Section 13  Disposal considerations
- **Waste:** No special requirements.
- **Contaminated packaging:** No special requirements.

### Section 14  Transport information
- **International regulations:** Non-hazardous material for transportation.
- **Hazard class:** None.

### Section 15  Regulatory information
- **Safety, health and environmental regulations:** No specific regulations for this product.

### Section 16  Other information including information on preparation and revision of the SDS
- **This Material Safety Data Sheet is drawn up on the basis of present knowledge and legislation and cannot be full.**
- **The use of product for purposes other than those indicated above may cause hazards not described in this document.**
- **In no event shall Ray Techniques Ltd be liable for any claims, losses or damages of any third party.**

The form was prepared by Ray Techniques Ltd. May 2016.

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