

**6003 – 15% Highly Filled Carbon Nanotube Polypropylene Masterbatch**

---

**SECTION 1: Identification****1.1 Product identifier**

Product name PR00552; 15% Active Polypropylene Carbon Nanotube Masterbatch  
Product number PR00552  
Brand Interfacial Consultants, LLC

**1.2 Other means of identification**

6003; 15% Highly Filled Carbon nanotube Polypropylene Masterbatch; PR00552

**1.3 Recommended use of the chemical and restrictions on use**

Thermoplastic resin to be extruded or molded.

**1.4 Supplier's details**

Name Interfacial Consultants, LLC  
Address N4660 1165th St.  
Prescott, WI 54021  
United States  
  
Telephone 715-781-0305  
Fax n/a  
email info@ifllc.com

**1.5 Emergency phone number(s)**

715-781-0305

---

**SECTION 2: Hazard identification****2.1 Classification of the substance or mixture**

- Eye damage/irritation (chapter 3.3), Cat. 2A

**2.2 GHS label elements, including precautionary statements****Pictogram****Signal word****Warning****Hazard statement(s)**

(CAN)  
H319  
H335

May form combustible dust concentrations in air  
Causes serious eye irritation  
May cause respiratory irritation

**Precautionary statement(s)**

P260

Do not breathe dust/fume/gas/mist/vapors/spray.

**6003 – 15% Highly Filled Carbon Nanotube Polypropylene Masterbatch**

|      |  |
|------|--|
| P261 | Avoid breathing dust/fume/gas/mist/vapors/spray.                           |
| P264 | Wash ... thoroughly after handling.  |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P501 | Dispose of contents/container to incinerator                               |

**2.3 Other hazards which do not result in classification**

Components of this material may aggravate those with pre-existing eye, skin, or respiratory conditions. Polymeric materials generally do not pose a health hazard unless heated to decomposition. Under normal conditions of processing and use, exposure to the chemical constituents in this product is unlikely. All ingredients are tightly bound in a polymeric matrix that has a negligible vapor pressure so there is a low potential for inhalation or ingestion of ingredients. Due to processing, dermal contact may be possible. Avoid dust inhalation.

**SECTION 3: Composition/information on ingredients****3.2 Mixtures****Hazardous components****1. Multi Walled Carbon Nanotube**

|               |                    |
|---------------|--------------------|
| Concentration | 13 - 17 % (Weight) |
| CAS no.       | 7782-42-5          |

- P261  
- P501

|      |                                  |
|------|----------------------------------|
| H319 | Causes serious eye irritation    |
| H335 | May cause respiratory irritation |

**SECTION 4: First-aid measures****4.1 Description of necessary first-aid measures**

|                         |   |
|-------------------------|---|
| General advice          | Consult a physician. Show this safety data sheet to the doctor in attendance.                                   |
| If inhaled              | If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| In case of skin contact | Remove dusty or contaminated clothing. Wash off with soap and plenty of water.                                  |
| In case of eye contact  | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.                          |
| If swallowed            | Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.             |

**4.2 Most important symptoms/effects, acute and delayed**

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

Avoid creating and exposure to dust.

**6003 – 15% Highly Filled Carbon Nanotube Polypropylene Masterbatch**

Eye/skin contact with hot or molten material may cause severe injury, including possible blindness/thermal burns. Ingestion may produce mild gastrointestinal irritation and disturbances. Thermal processing fumes may cause irritation, pulmonary edema and a possible asthma-like response.

**4.3 Indication of immediate medical attention and special treatment needed, if necessary**

No data available

---

**SECTION 5: Fire-fighting measures****5.1 Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Avoid high pressure, direct water stream that may spread molten or burning resins.

**5.2 Specific hazards arising from the chemical**

Upon heating, this material may emit various oligomers, waxes and oxygenated hydrocarbons as well as carbon dioxide, carbon monoxide, and small amounts of other organics vapors. Inhalation of these decomposition products may be hazardous.

**5.3 Special protective actions for fire-fighters**

Wear self-contained breathing apparatus for firefighting if necessary.

**Further information**

Use water spray to cool unopened containers.

---

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid breathing creating or exposure to dust, especially inhalation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

**6.2 Environmental precautions**

Do not let product enter drains. Prevent further spillage if safe to do so. Discharge into the environment should be avoided.

**6.3 Methods and materials for containment and cleaning up**

Contain spill. Prevent entry into sewers and drains, underground or confined spaces, water intakes and waterways. Spilled product may create a slipping hazard. Use appropriate tool to put the spilled solid in an appropriate disposal or recovery container. Reuse or recycle where possible.

**Reference to other sections**

For disposal see section 13.

---

**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

Handle in contained and properly designated systems. Use adequate dust mitigation and ventilation. Avoid inhalation. Keep away from uncontrolled heat and incompatible materials.

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible or hazardous respirable dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

**6003 – 15% Highly Filled Carbon Nanotube Polypropylene Masterbatch**

Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. For precautions see section 2.2.

**7.2 Conditions for safe storage, including any incompatibilities**

Keep container tightly closed in a dry and well-ventilated place (ideally a designated storage area), away from uncontrolled heat sources and incompatible materials.

**Specific end use(s)**

Apart from the uses mentioned in section 1.3 no other specific uses are stipulated

**SECTION 8: Exposure controls/personal protection****8.1 Control parameters****1. Multi Walled Carbon Nanotube**

TWA (Inhalation): 10 mg/m<sup>3</sup> (inhalable particles), 3 mg/m<sup>3</sup> (respirable fraction) (ACGIH)

PEL (Inhalation): 15 mg/m<sup>3</sup> (total dust), 5 mg/m<sup>3</sup> (respirable fraction) (OSHA)

**8.2 Appropriate engineering controls**

Handle in accordance with good industrial hygiene and safety practices. Wash hands before breaks and at the end of workday.

**8.3 Individual protection measures, such as personal protective equipment (PPE)****Eye/face protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin 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.

**Body protection**

Wear protective clothing (such as long-sleeved shirts and long pants) whenever molten material is present. Safety footwear with good traction is recommended to help prevent slipping

**Respiratory protection**

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).

**Environmental exposure controls**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**SECTION 9: Physical and chemical properties****Information on basic physical and chemical properties**

|                 |                      |
|-----------------|----------------------|
| Appearance/form | Solid, pellet, black |
| Odor            | None                 |
| Odor threshold  | No data available.   |
| pH              | No data available.   |

**6003 – 15% Highly Filled Carbon Nanotube Polypropylene Masterbatch**

|   |                                     |
|---|-------------------------------------|
| Melting point/freezing point            | 150-180 °C (analogous material)     |
| Initial boiling point and boiling range | No data available.                  |
| Flash point                             | No data available.                  |
| Evaporation rate                        | No data available.                  |
| Flammability (solid, gas)               | Not flammable                       |
| Upper/lower flammability limits         | No data available.                  |
| Upper/lower explosive limits            | No data available.                  |
| Vapor pressure                          | No data available.                  |
| Vapor density                           | No data available.                  |
| Relative density                        | No data available.                  |
| Solubility(ies)                         | Insoluble in water                  |
| Partition coefficient: n-octanol/water  | No data available.                  |
| Auto-ignition temperature               | No data available.                  |
| Decomposition temperature               | Varies; 350 °C (analogous material) |
| Viscosity                               | No data available.                  |
| Explosive properties                    | No data available.                  |
| Oxidizing properties                    | No data available.                  |

**Other safety information**

No data available.

**SECTION 10: Stability and reactivity****10.1 Reactivity**

None under normal use conditions.

**10.2 Chemical stability**

Stable under recommended storage conditions. This product is stable under normal use conditions for shock, vibration, pressure, and temperature.

**10.3 Possibility of hazardous reactions**

No data available.

**10.4 Conditions to avoid**

Heat, flames and sparks. Avoid strong oxidizing agents. Avoid processing material &gt;380 °C. Avoid dust formation.

**10.5 Incompatible materials**

May react with strong oxidizing agents. Organic solvents, ether, gasoline, lubricating oils, chlorinated hydrocarbons and aromatic hydrocarbons may react with and degrade this product. Powders or dusts may form an explosive mixture with air. Risk of dust-air explosion is increased if flammable vapors are also present.

**10.6 Hazardous decomposition products**

Other decomposition products - No data available. In the event of fire: see section 5

**SECTION 11: Toxicological information****Information on toxicological effects****Acute toxicity**

No data available.

**Skin corrosion/irritation**

No data available.

**Serious eye damage/irritation**

No data available.

**Respiratory or skin sensitization**

Respirable dust of this material may present an inhalation hazard.

**Germ cell mutagenicity**

No data available.

**Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible, or confirmed human carcinogen by IARC.

**Reproductive toxicity**

No data available.

**Summary of evaluation of the CMR properties**

No data available.

**STOT-single exposure**

No data available.

**STOT-repeated exposure**

No data available.

**Aspiration hazard**

No data available.

**Additional information**

To the best of our knowledge, the chemical, physical, and toxicological properties of this material have not been thoroughly investigated.

---

**SECTION 12: Ecological information****Toxicity**

No data available.

**Persistence and degradability**

Product is not expected to readily degrade in aquatic or terrestrial environments.

**Bioaccumulative potential**

Pellets may accumulate in the digestive systems of birds and aquatic life, causing injury and possible death due to starvation.

**Mobility in soil**

If released to the aquatic environment, this material is anticipated to not readily degrade. Product should be recovered water and land following spills. This product is not anticipated to be mobile in the terrestrial environment.

**Results of PBT and vPvB assessment**

Product is not expected to readily degrade in aquatic or terrestrial environments, is not anticipated to bioaccumulate, and is not toxic.

**Other adverse effects**

No data available.

## SECTION 13: Disposal considerations

### Disposal of the product

Offer surplus and non-recyclable pellets/material to a licensed disposal company for incineration.

### Disposal of contaminated packaging

Dispose of as unused product.

---

## SECTION 14: Transport information

### DOT (US)

Not dangerous goods

### IMDG

Not dangerous goods

### IATA

Not dangerous goods

---

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations specific for the product in question

#### Stockholm Convention

No listed components

#### Toxic Substances Control Act (TSCA) Inventory

Carbon nanotubes: although no environmental tests were conducted, similar substances have been found harmful to the environment if released to water. Product is accordingly subject to regulation under TSCA, and may not be released to waters.

### 15.2 Chemical Safety Assessment

This material is non-reactive, chemically stable, and inert under recommended storage and use conditions. This material may be melted upon heating and thermal hazards may be associated with the molten material. Whole product human and ecological impacts of this material have not been tested, any classifications made have been based entirely on individual components.

#### HMIS Rating

|                     |   |
|---------------------|---|
| Health              | 1 |
| Flammability        | 1 |
| Physical hazard     | 0 |
| Personal protection | B |

#### NFPA Rating

|                   |   |
|-------------------|---|
| Health hazard     | 1 |
| Fire hazard       | 1 |
| Reactivity hazard | 0 |
| Special hazard    |   |

---

## SECTION 16: Other information

### 16.1 Further information/disclaimer

**6003 – 15% Highly Filled Carbon Nanotube Polypropylene Masterbatch**

Although the information contained in this document is presented in good faith, based on available information which is believed to be reliable at the time this document was prepared, Interfacial Consultants makes no warranties or representations with respect to information or the product/materials described herein, and expressly disclaims all implied warranties and conditions (including all warranties and conditions of merchantability or fitness for a particular purpose). No infringement of any patent owned by Interfacial Consultants or others is to be inferred. This information is subject to change without notice. Please contact Interfacial Consultants for the most current version of this SDS. Interfacial Consultants does not assume responsibility for SDS obtained from third party sources.

Unless specifically agreed otherwise, Interfacial Consultants does not take responsibility for use, transportation, storage, handling, or disposal of the products described herein.