

MATERIAL SAFETY DATA SHEET

C₆₀PCBM

Section 1 Product and Manufacturer Information

Product Name: C₆₀PCBM Solid Fullerene Chemical Derivative

<u>Manufacturer:</u>	Nano-C, Inc.	phone: 1-781-407-9417 ext. 224
	33 Southwest Park	fax: 1-781-407-9419
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Date: December 10, 2008

Section 2 Composition and Information on Ingredients

Substance name: 3'H-Cyclopropa[1.9][5.6]fullerene-C₆₀-1h-3'-butanoic acid, 3'-phenyl-, methyl ester

Product code: nano-c(PCBM-BF)

Components: C₆₀PCBM (≥ 98.5%) [C₇₂H₁₄O₂]

Impurities: < 1.5% carbonaceous material

CAS Number: 160848-22-6

Section 3 Hazards Identification

Overview: Irritating to eyes and respiratory system.

Skin Contact: No known hazards, but slight irritation may occur.

Ingestion: No known hazards, but may irritate gastrointestinal tract.

Acute and Chronic Health Effects: High concentrations of dusts may be irritating to eyes, skin, mucus membranes and respiratory tract. Toxicological properties have not been fully investigated.

HMIS Rating:

Health: 0

Flammability: 0

Reactivity: 0

NFPA Rating:

Health: 0

Flammability: 0

Flammability: 0

Section 4 First Aid Measures

Ingestion: If swallowed, wash out mouth with water provided person is conscious. Get medical attention.

Inhalation: Remove to fresh air. If breathing is difficult, get medical advice.

Skin Contact: Flush skin with water. Wash skin with soap and copious amounts of water.

Eye Exposure: Immediately flush eyes with sufficient amounts of water for at least 15 min.

Section 5 Fire Fighting Measures

Flash Point: Not applicable.

Explosion Limits: unknown.

Extinguishing Media: water, carbon dioxide, dry chemical powder, appropriate foam.

Protective Equipment: In the case of a fire, wear self contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific Hazards: Emits toxic fumes under fire conditions.

Section 6 Accidental Release Measures

General Information: Wear proper PPE as described in Section 8.

Spill Procedures: Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and was spill site after material pickup is complete.

Section 7 Handling and Storage

Handling: Do not breathe dust. Avoid contact with eyes, skin, and clothing.

Storage: Keep in closed container for storage.

Section 8 Exposure Controls and Personal Protection

Personal Protective Equipment:

Eyes: approved safety glasses or goggles.

Skin: compatible chemical-resistant gloves and protective clothing.

Respiratory: Follow OSHA respirator regulations found in 29CFR 1910.134 or related country specific (or EU) standards.

General Hygiene Measures: Wash thoroughly after handling.

Engineering Controls: Use adequate ventilation to keep airborne concentrations low. Allow for safety shower and eye bath.

Section 9 Physical and Chemical Properties

Appearance: black to light brown powder

Physical state: solid

Molecular weight: 910.9

Melting point: not determined

Solubility in water: insoluble

Solubility in organic solvents: toluene, o-dichlorobenzene, o-xylene

Odor: odorless

SG/Density: N/A

N/A: Not Available: pH, vapor pressure, vapor density, evaporation rate, viscosity, boiling point, freezing/melting point, autoignition temperature, explosion limits, flash point, decomposition temperature, solubility.

Section 10 Stability and Reactivity

Stability: stable

Materials to avoid: strong oxidizing agents

Hazardous polymerization: no

Hazardous decomposition products: combustion may produce carbon monoxide and carbon dioxide.

Section 11 Toxicological Information

Effects: No known toxicological effects. To the best of our knowledge, toxicological properties have not been investigated in detail.

Section 12 Ecological Information

No data available.

Section 13 Disposal Considerations

Disposal: Dispose of this material in accordance with local, state, and federal regulations.

Section 14 Transport Information

US Department of Transportation (DOT): This material is considered to be non-hazardous for transport.

IATA: Non-hazardous.

IMDG: Non-hazardous.

Section 15 Regulatory Information

US Regulatory Information:

This substance is not listed on the Toxic Substances Control Act (TSCA) Chemical Substance Inventory. This substance may only be used for experimental purposes under the TSCA R&D Exemption in accordance with the regulations at 40 CFR 720.36. Commercial use is prohibited.

This product contains no toxic chemicals at or above the *de-minimis* threshold subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372.

EU Classification:

Symbol of Danger: None.

Indication of Danger: None.

Risk statements: None.

Safety statements: None.

Section 16 Other Information

Disclaimer: The above information is believed to be accurate and has been prepared based on the best information available to us. Nano-C makes no warranty of this product, express or implied, with respect to such information, and it assumes no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purpose. In no event shall Nano-C, Inc. be held liable for any damage, claims, losses, or damages resulting from handling or contact with the above product.