MATERIAL SAFETY DATA SHEET
[6,6]–Phenyl C71 butyric acid methyl ester (PCBM)

Product Details
Product Code: PCBM-01
Name: [6,6]–Phenyl C71 butyric acid methyl ester (PCBM)
Supplied by: Ossila Limited, Kroto Innovation Centre
            Broad Lane, Sheffield
            S3 7HQ, UK
Contact: 0114 2132770
          info@ossila.com

Main Hazards
Defined as non–hazardous under European directive 67/548/EEC but substance not yet fully tested.
As precautionary measure consider to be irritant to eyes, skin and respiratory system.

Ingredients
<table>
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<tr>
<th>Ingredient</th>
<th>CAS #</th>
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<tbody>
<tr>
<td>1-[3-(methoxycarbonyl)propyl]-1-phenyl-[6,6]C71</td>
<td>CAS 609771-63-3</td>
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<tr>
<td>3’H-cyclopropa[1,9][5,6]fullerene–C70–Ih–3’–butanoic acid 3’–phenyl methyl</td>
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Handling and Storage
Handling
Directions for Safe Handling: Do not breathe dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

Storage
Good industrial practice in housekeeping, and personal hygiene should be followed. Minimize dust. Keep container closed. Keep away from sources of ignition.

First Aid Measures
After Inhalation
If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

After Skin Contact
In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

After Eye Contact
In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.
After Ingestion
If swallowed, wash out mouth with water

Fire Fighting
As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing media:
Use agent most appropriate to extinguish fire. In case of fire, use water spray, dry chemical, carbon dioxide, or appropriate foam.

Special Risks
Emits toxic fumes when burnt.

Accidental Release Measures
Personal precaution procedures to be followed in case of leak or spill
Wear respirator, goggles, rubber boots and heavy rubber gloves.

Procedure(s) of personal precaution(s)
Sweep up and place in container for proper disposal. Avoid raising dust. Ventilate room and wash spill area after.

Physical and Chemical Properties
Appearance: black to light brown solid and/or crystals
Odor: none reported
Chemical formula: C₈₂H₁₄O₂
Molecular weight: 1030
Boiling point: not determined
Melting point: not determined
Solubility in water: negligible
Solubility: soluble in toluene, xylenes, ortho-dichlorobenzene, chloroform

Stability and Reactivity
Stable under normal temperatures and pressures
Incompatible materials: Strong oxidants
Hazardous decomposition products: Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide
Hazardous polymerization: Will not occur

Exposure Controls / Personal Protection
Engineering Controls
Safety shower and eye bath. Mechanical exhaust required.

Personal Protective Equipment
Eyes: wear chemical goggles
Skin: wear appropriate gloves to prevent skin exposure
Clothing: wear appropriate protective clothing to minimize contact with skin
Respirators: a respiratory protection program that meets OSHA’s 29 CFR §1910.134 and ANSI Z88.2 requirements or European standard EN 149 must be followed whenever workplace conditions warrant a respirator’s use.
General Hygiene Measures
Wash thoroughly after handling. Wash contaminated clothing before reuse.

Signs and symptoms of exposure
Unknown

Disposal
Contact a licensed professional waste disposal service to dispose of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Transport
Non-hazardous for road, air and sea transport.
   - IATA: not regulated as a hazardous material
   - IMO: not regulated as a hazardous material
   - RID/ADR: not regulated as a hazardous material

Warranty
This material is for research and development use only. The information provided here is based upon the available information from material suppliers but not warranted as complete and is provided only as a guide. Ossila Limited shall not be held responsible for any damage resulting from use or handling of this product.