



**MATERIAL SAFETY DATA SHEET (MSDS)**  
**January 2012**

**1. Identification**

Solid fullerene chemical derivative

**2. Composition**

[6,6]-Phenyl C<sub>71</sub> butyric acid methyl ester (mixture of isomers)  
3'H-Cyclopropa[8,25][5,6]fullerene-C70-D5h(6)-3'-butanoic acid, 3'-phenyl-, methyl ester (major isomer)

CAS 609771-63-3

**3. Physical data**

Appearance: black to light brown solid and/or crystals

Odor: none reported

Chemical formula: C<sub>82</sub>H<sub>14</sub>O<sub>2</sub>

Molecular weight: 1031.0

Boiling point: not determined

Melting point: not determined

Solubility in water: negligible

Solubility in organic solvents: soluble in toluene, xylenes, ortho-dichlorobenzene, chloroform

**4. Fire fighting measures**

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.

Explosion hazards:

Negligible

**5. Health hazards**

Acute effects:

May cause eye irritation

May cause skin irritation



May be harmful by inhalation

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

## **6. First aid measures**

In all cases, get medical aid immediately

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids.

Skin: Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: if victim is conscious and alert, give 2-4 cupfuls of milk or water.

Inhalation: remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

## **7. Stability and reactivity**

Stability:

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

## **8. Spill or leak procedures**

Clean spill ups immediately. Sweep up or absorb material, then place in a suitable clean, dry, closed container for proper disposal. Provide ventilation.

## **9. Hazard identification**

Risk phrases: R36/37/38

Hazard symbol: Xi

Safety recommendations: S22 S24/25 S26 S36



### **10. Handling and storage**

Good industrial practice in housekeeping, and personal hygiene should be followed.

Minimize dust.

Good storage stability. Avoid extremes of temperature and humidity.

### **11. Exposure control/personal protection**

No special requirements

Engineering controls:

Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels.

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.

### **12. Ecological information**

Not available

### **13. Disposal considerations**

Dispose of in a manner consistent with federal, state, and local regulations.

### **14. Transport information**

IATA: not regulated as a hazardous material

IMO: not regulated as a hazardous material

RID/ADR: not regulated as a hazardous material

This material is for research and development use only.



### **15. Additional information**

This information is believed to be correct, however, Solenne b.v. makes no representations as to its comprehensiveness or accuracy. Individuals receiving this information must use independent judgment to determine its appropriateness for a particular purpose. Solenne b.v. shall not be held liable for any damage resulting from handling or from contact with the above product.

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