

SAFETY DATA SHEET (GHS compliant - 16 Sections)

Product: Fullerene C60 (99.95% Electronic Grade - 330nm Verified)

1. Identification

Product Name: Fullerene C60 (Buckminsterfullerene)

CAS No.: 99685-96-8

Product Grade: Electronic Grade (330nm HPLC Verified)

Supplier: Xiamen Carbonsphere Trading Co., Ltd. (XCT)

Emergency Phone: +86-597-7573666

Recommended Use: For R&D and industrial use in organic photovoltaics (OPV), tandem cells, and semiconductors.

2. Hazard Identification

GHS Classification: Eye Irritation (Category 2A), H319; STOT SE 3 (Respiratory), H335.

Signal Word: Warning

Hazard Statements: H319: Causes serious eye irritation; H335: May cause respiratory irritation.

Precautionary Statements: P261: Avoid breathing dust; P280: Wear protective gloves/eye protection; P305+P351+P338: IF IN EYES: Rinse cautiously with water.

3. Composition/Information on Ingredients

Main Component: Fullerene C60 (Carbon)

Concentration: ≥99.95% (Verified via 330nm HPLC Protocol)

Impurity Profile: Metal Residues < 5 ppm (Intrinsically Metal-Free)

4. First-Aid Measures

Inhalation: Move to fresh air. If breathing is difficult, give oxygen.

Skin Contact: Wash with soap and plenty of water.

Eye Contact: Rinse thoroughly with plenty of water for at least 15 minutes.

Ingestion: Rinse mouth with water. Do not induce vomiting.

5. Fire-Fighting Measures

Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special Hazards: Carbon oxides may form under fire conditions.

6. Accidental Release Measures

Personal Precautions: Use personal protective equipment. Avoid dust formation. Ensure adequate ventilation.

Environmental Precautions: Do not let product enter drains.

Clean-up: Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. Handling and Storage

Handling: Provide appropriate exhaust ventilation. Avoid contact with eyes and skin.

Storage: Keep container tightly closed in a dry and well-ventilated place. Store under inert gas (Nitrogen/Argon). Light sensitive.

8. Exposure Controls / Personal Protection

Controls: Use laboratory fume hood or local exhaust.

PPE: NIOSH N95 (US) or EN143 P2 (EU) Respirator; Nitrile gloves; Safety glasses with side-shields (ANSI Z87.1).

9. Physical and Chemical Properties

Appearance: Black/Dark Grey fine powder.

Molecular Weight: 720.64 g/mol.

Purity: ≥99.95% (330nm HPLC Verified).

Solubility: Insoluble in water; Soluble in Toluene, Ortho-dichlorobenzene (ODCB).

10. Stability and Reactivity

Reactivity: Stable under recommended storage conditions.

Thermal Stability: Decomposition temperature > 520°C.

Incompatible Materials: Strong oxidizing agents.

11. Toxicological Information

Acute Toxicity: LD50 Oral - Rat - > 2,000 mg/kg.

Irritation: Skin/Eye irritation may occur upon prolonged contact. Not classified as a primary carcinogen.

12. Ecological Information

Toxicity: No data available. Not expected to be hazardous to the environment due to low solubility.

13. Disposal Considerations

Product: Offer surplus and non-recyclable solutions to a licensed disposal company. Dispose of as non-hazardous chemical waste.

14. Transport Information

DOT (US) / IMDG / IATA: Not dangerous goods. Non-hazardous for transport. (No special labels required).

15. Regulatory Information

TSCA Status: This product is supplied for Research and Development (R&D) purposes only in accordance with **TSCA Section 5(h)(3) Exemption**.

California Proposition 65: This product does not contain any chemicals known to the State of California to cause cancer or reproductive harm.

16. Other Information

Disclaimer: The information above is believed to be accurate but XCT makes no warranty with respect to such information and assumes no liability resulting from its use.

Revision Date: April 6, 2026