Indigo Chemical

Version 1.0
Revision Date 4/12/2025

Safety Data Sheet

SECTION 1: IDENTIFICATION

Product Identifier: Fullerene Extract Mixture
Other Means of Identification: C_{60} Extract, Toluene-Soluble Fullerene Mixture
Recommended Use: Research chemical; not for drug, food, or household use
Restrictions on Use: For laboratory/research use only
Manufacturer: Indigo Chemical LLC
Address: Indigo Chemical LLC, 167 Madison Avenue, Ste 205 #555, New York City, NY 10016, United States
Phone: N/A
Emergency Phone Number: In emergency, call 911
Info Contact: info@indigochem.com

SECTION 2: HAZARD(S) IDENTIFICATION

Classification: Eye Irritant (Category 2B), STOT-SE (Category 3, respiratory tract)
Signal Word: Warning
Hazard Statements: H320: Causes eye irritation; H335: May cause respiratory irritation
Pictogram:

Precautionary Statements: P261, P264, P271, P304+P340, P305+P351+P338
Other Hazards: Dust may be combustible
Unknown Acute Toxicity: ~5–10% of mixture consists of unknown toxicity ingredients

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name: Fullerene (C60/C70 mix)
Synonym: Buckminsterfullerene
CAS#: 99685-96-8
Concentration: 80–90%

Chemical Name: Toluene Residue (trace)
Synonym: Methylbenzene
CAS#: 108-88-3
Concentration: <1%

Non-hazardous carbonaceous matrix: 10–20%

SECTION 4: FIRST-AID MEASURES

Skin: Wash with soap and water.
Eyes: Rinse cautiously with water; remove contact lenses.
Inhalation: Move to fresh air.
Ingestion: Rinse mouth. Do not induce vomiting.
Symptoms: Mild respiratory or eye irritation.
Special Treatment: Not normally required.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media: CO2, dry chemical, foam.
Hazards: Carbon oxides may form.
Protective Equipment: SCBA and full gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Precautions: Avoid dust formation; wear PPE.
Environmental: Prevent discharge into drains.
Cleanup: Sweep up, avoid dust, ventilate area.

SECTION 7: HANDLING AND STORAGE

Handling: Use with ventilation; avoid contact and dust.
Storage: Store cool, dry, sealed; avoid oxidizers.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Toluene (trace): OSHA PEL 200 ppm; ACGIH TLV 20 ppm

Engineering Controls: Local exhaust ventilation.
PPE: N95 mask, nitrile gloves, safety goggles.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Form: Fine black powder
Odor: Odorless (may smell faintly aromatic)
pH: Not applicable
Melting Point: ~280 °C
Boiling Point: Decomposes
Flash Point: Not applicable
Flammability: Dust hazard possible
Vapor Pressure: Negligible
Density: ~1.65 g/cm³
Solubility: Insoluble in water; soluble in toluene
Partition Coefficient: log Kow ~6.67
Decomposition Temp: >500 °C

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Stable
Stability: Stable
Conditions to Avoid: Heat, sparks
Incompatible Materials: Oxidizers
Hazardous Decomp.: CO, CO2, soot

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure Routes: Inhalation, skin, eye
Symptoms: Irritation
Toxicity: Oral LD50 >15,000 mg/kg (rat)
Carcinogenicity: Not listed by NTP, IARC
Target Organs: Respiratory tract (dust)

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: Low
Mobility: Low in soil
Biodegradation: Not readily biodegradable
Bioaccumulation: High potential

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose per local regulations.
Avoid environmental release.
Triple rinse containers if needed.

SECTION 14: TRANSPORT INFORMATION

UN Number: Not regulated
Shipping Name: Not hazardous
Hazard Class: Not applicable
Marine Pollutant: No
Precautions: Avoid airborne dust

SECTION 15: REGULATORY INFORMATION

SARA 355: Not listed
SARA 313: Not listed
CAA 112 HAPs: Not listed
TSCA: Listed (C60)

SECTION 16: OTHER INFORMATION

SDS Preparation Date: April 12, 2025