

MATERIAL SAFETY DATA SHEET

D5-[60]PCBM (99.5%)

Section 1 Product and Manufacturer Information

Product Identifier: [6,6]-Pentadeuterophenyl-C61-butyric acid methyl ester

Product Code: d-060995

Identified Use(s): Laboratory chemicals, Manufacture of substances

Manufacturer: Solenne BV
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Section 2 Hazards Identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Eye irritation (category 2)
Skin irritation (category 2)

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Irritation to eyes and respiratory system

Label elements

Labeling according to Regulation (EC) No 1272/2008 [CLP]

Pictogram:



Signal word: Warning

Hazard Statements

H302/312/332 Harmful if swallowed, in contact with skin or if inhaled
H305 May be harmful if swallowed and enters airways
H315/320 Causes skin and eye irritation

Precautionary statements

| | |
|------|--|
| P260 | Do not breathe dust/fume/gas/mist/vapors/spray |
| P262 | Do not get in eyes, on skin, or on clothing |
| P281 | Use personal protective equipment as required |
| P410 | Protect from sunlight |

According to European Directive 67/458/EEC as amended:

| | |
|-------------|---|
| R-Phrase(s) | |
| R36/37 | Irritating to eyes and respiratory system |
| S-phrase(s) | |
| S26 | In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. |
| S36 | Wear suitable protective clothing |

Emergency Overview**OSHA/GHS Hazards**

No known OSHA hazards

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS).

HMIS Classification

Health hazard: 0

Flammability: 0

Physical hazards: 0

NFPA Rating

Health hazard: 0

Fire: 0

Reactivity Hazard: 0

Section 3 Composition and Information on Ingredients

| | |
|-------------------------------|---|
| <u>Substance name:</u> | [6,6]-Pentadeuterophenyl-C61-butyric acid methyl ester |
| <u>Synonyms:</u> | d5-[60]PCBM, d-PCBM, deuterated PCBM |
| <u>Components:</u> | d5-[60]PCBM (≥ 99.5%) [C ₇₂ H ₉ D ₅ O ₂] |
| <u>Impurities:</u> | < 0.5% carbonaceous material |
| <u>CAS Number:</u> | 749898-80-4 |

Section 4 First Aid Measures

| | |
|------------------------|--|
| <u>If swallowed:</u> | Immediately call a poison center/doctor (P301/310) Rinse mouth (P330) |
| <u>If on skin:</u> | Gently wash with plenty of soap and water (P302/350) If skin irritation occurs: Get medical advice/attention (P332/313) |
| <u>If inhaled:</u> | Remove person to fresh air and keep comfortable for breathing (P304/340) |
| <u>If in eyes:</u> | Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing (P305/351/338) |
| <u>If on clothing:</u> | Rinse immediately clothing and skin with plenty of water before removing clothings (P306/360) |

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.

Environmental Precautions: Do not let product enter drains.

Spill Procedures: Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash 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 in dry, well-ventilated place. For long-term storage, keep under inert gas and away from light.

Section 8 Exposure Controls and Personal Protection

Personal Protective Equipment (PPE):

Eyes: Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product.

Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU directive 89/686/EEC and the standard EN 374 derived from it.

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

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

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: 915.9

Melting point: not determined

Solubility in water: insoluble

Solubility in organic solvents: chloroform, toluene, o-dichlorobenzene, xylenes

Odor: odorless

SG/Density: N/A

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

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, national and/or federal regulations.

Section 14 Transport Information

IATA: This material is considered to be non-hazardous for transport.

IMDG: This material is considered to be non-hazardous for transport.

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

Section 15 Regulatory Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

EU Classification:

Symbol of Danger: None.
Indication of Danger: None.
Risk statements: None.
Safety statements: None.

US Regulatory Information:

This substance is distributed by Solenne BV, The Netherlands solely for processing and use by recipients under the Toxic Substances Control Act (TSCA) R&D Exemption in accordance with the regulations at 40 CFR 720.36. Commercial use is prohibited. This substance is specifically regulated under a TSCA Section 5(e) Consent Order. Substances regulated under TSCA Section 5(e) are subject to TSCA Section 12(b) export notification in accordance with the regulations at 40 CFR 707.60-.75.

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

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. Solenne BV 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 Solenne BV be held liable for any damage, claims, losses, or damages resulting from handling or contact with the above product.