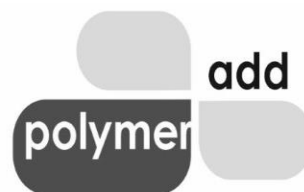


Polymer Add (Thailand) Co.,Ltd.

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TECHNICAL DATA SHEET (TDS)

1,4-CYCLOHEXANEDIMETHANOL DIBENZOATE (MICRONIZED)

1. Product Identification

- **Chemical Name:** 1,4-Cyclohexanedimethanol Dibenzoate
- **Synonyms:** 1,4-CHDM Dibenzoate
- **CAS No.:** 101-97-3
- **Molecular Formula:** $C_{22}H_{24}O_4$
- **Product Form:** Micronized solid powder

2. Product Description

1,4-Cyclohexanedimethanol Dibenzoate is a high-melting, solid aromatic ester plasticizer supplied in micronized powder form for formulation-grade applications.

It is used as a permanent, low-migration solid plasticizer / internal modifier in engineering polymers, specialty PVC compounds, and thermoset resin systems where thermal stability and long-term performance are required.

3. Typical Physical Properties

Property	Typical Value
Appearance	White to off-white powder
Odour	Mild
Melting / Softening Range	145 – 155 °C
Bulk Density	0.40 – 0.60 g/cm ³
Solubility in Water	Practically insoluble
Thermal Behaviour	Softens and becomes active in high-temperature processing

Values are typical and not intended as specifications.

4. Particle Size Characteristics (Micronized Grade)

Parameter	Typical Range
D50	5 – 10 µm
D90	< 20 µm
D100	< 40 µm

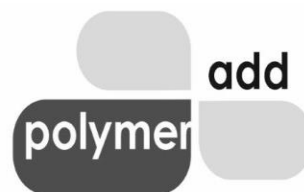
Micronization ensures **uniform dispersion, controlled activation, and consistent functional performance** in polymer and resin formulations.

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5. Primary Applications

Used as a **solid, high-temperature plasticizer / functional modifier** in:

- Engineering thermoplastics (PA, PET, PBT, PC, ABS blends)
- Specialty and technical PVC compounds (wire & cable, industrial profiles)
- Thermoset resins (epoxy, polyester, vinyl ester)

Functional benefits:

- Permanent plasticization
- Low migration and volatility
- Improved toughness and compatibility
- Thermal stability at elevated processing temperatures

6. Secondary / Niche Applications

- Industrial coatings and adhesives
- High-temperature compound systems
- Specialty polymer blends requiring permanent flexibility

Applications are formulation-specific and evaluated case-by-case.

7. Processing & Handling

- Supplied as a free-flowing micronized powder
- Suitable for dry blending and pre-formulation
- Compatible with standard compounding and blending equipment

8. Storage & Shelf Life

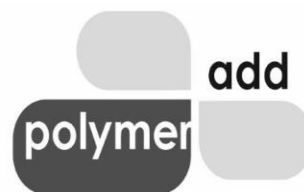
- Store in a cool, dry, well-ventilated area
- Keep container tightly closed
- **Shelf life:** 24 months under recommended storage conditions

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9. Packaging

- 20–25 kg bags
- Other packaging available on request

10. Regulatory & Compliance (Indicative)

- Intended for **industrial use only**
- Not classified as SVHC under REACH (indicative)
- Detailed regulatory status available upon request

11. Disclaimer

The information provided is based on typical data and experience and is intended for guidance in formulation development. Users should conduct their own evaluations to determine suitability for their specific applications.