

MATERIAL SAFETY DATA SHEET

METOL CBT 100 RESIN (UNCATALISED)



Revision Date: March 2024

Section 1

Product and Company Identification

Head Office: Metol Ltd, Advanced Technology and Innovation Centre, 5 Oakwood Drive, Loughborough, LE11 3QF, UK

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Product Identifier: METOL CBT 100 resin

Product Description: Poly (butylene terephthalate) cyclised. 1,4-Benzenedicarboxylic acid, dimethylester, polymer with 1, 4-butanediol, CAS #263244-54-8.

Product Use: May be used to produce molded articles or as a component of other industrial products.

Section 2

Composition/Information on Ingredients

Components listed below are classified as hazardous as defined by the OSHA Hazard Communication Standard. The concentrations (expressed as weight percent) are typical or average values for this product.

See also Section 15, Regulatory Information.

Component Name	%	CAS Number	OSHA PEL	ACGIH TWA
None	-	-	-	-

Section 3

Hazards Identification

Emergency Overview: Solid material that will burn in a fire creating dense, toxic smoke.

HMIS Rating: Health 0, Flammability 1, Reactivity 0

Potential Health Effects

Ingestion: No known adverse effects.

Inhalation: No known adverse effects.

Skin Contact: No known adverse effects.

Eye Contact: No known adverse effects.

Note: METOL CBT resin may cause skin or eye irritation in some individuals due to abrasive action of the resin in powder or granular form.

Chronic / Carcinogenicity

NTP: Not tested.

OSHA: Not classified as a carcinogen.

IARC: Not listed as a carcinogen.

Section 4

First Aid Measures

Eyes: Flush eyes with a large amount of clean, room temperature water for up to 15 minutes. After initial flushing remove contact lenses. If irritation persists seek medical attention promptly.

Skin: Remove contaminated clothing. Wash affected areas with soap and water. Seek medical attention if irritation persists.

Ingestion: Not known to cause adverse health effects. Do not induce vomiting.

Inhalation: Not known to cause adverse health effects. Leave contaminated area and get fresh air.

Section 5

Fire Fighting Measures

Fire Fighting: Fight fire from a safe distance with proper personal protective equipment including self-contained breathing apparatus.

Extinguishing Media: Water spray, foam. Carbon dioxide and dry chemical are not recommended because their lack of cooling capacity may permit re-ignition.

Conditions of Flammability: Requires a continuous flame source to ignite.

Flash Point: None

Autoignition Temperature: 380°C (680°F)

Explosion Data: Material is not sensitive to mechanical impact, but finely ground material is sensitive to static discharge under dust cloud conditions. In limited testing with METOL CBT resin dust (-200 mesh), a minimum concentration of 35 gm/m³, and minimum ignition energy of 0.4 joules were required to form an explosive dust cloud.

Explosion Limits: NA

Hazardous Combustion Products: Intense heat, black smoke, carbon dioxide, carbon monoxide.

Section 6

Accidental Release Measures

General: Sweep up spillage and reuse or dispose, as appropriate. Insure that molten resin has thoroughly cooled before disposal.

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Section 7

Handling and Storage

Handling: Use good industrial hygiene practices and provide adequate ventilation. Secondary operations on molded parts (such as grinding sanding or sawing) could produce an explosion hazard if dust is not adequately controlled. Use adequate ventilation and aggressive housekeeping practices to prevent dust accumulation.

Storage: Store resin on pallets in a cool dry covered area to maintain the integrity of the packing material. Do not stack more than two units high (pallets, drums, or boxes). Do not store in areas near open flame(s) or other potential ignition sources.

Section 8

Exposure Controls/Personal Protection

Engineering Controls: Fumes generated during thermal processing of METOL CBT resin may cause irritation in some individuals. Minimise exposures through controlled exhaust and fresh air makeup.

Personal Protection

General: Grinding, sanding or sawing plastic parts can produce airborne particles.

Eye/Face: Wear safety glasses with side shields or chemical goggles, as appropriate.

Skin: Avoid prolonged or unnecessary direct contact with resin granules/powder.

Respiratory: Wear a well-fitting dust respirator if area ventilation is insufficient.

Section 9

Physical and Chemical Properties

Physical State: Solid.

Odor and Appearance: Off white plastic pellets/granules/powder. Slight, mild odour.

Melting Point: Melts between 120 – 200°C

Vapor Pressure (mm Hg): Nil.

Specific Gravity (water=1): 1.3

Water Solubility: <0.3 ppm

% Volatiles: <1.0

Evaporation Rate: Nil.

Octanol/Water Partition Coefficient: 3.52

Section 10

Stability and Reactivity

Stability: Stable.

Reactivity: Not reactive under recommended conditions of handling and storage.

Conditions to Avoid: Strong oxidising agents.

Hazardous Decomposition Products: None. Hazardous polymerisation will not occur.

Section 11

Toxicological Information

Acute Oral: LD-50: greater than 5g/kg (rat), based on tests of similar material (poly- butylene terephthalate).

Section 12

Ecological Information

Ecological Information: This material is not known to be harmful to the environment. Decomposition is not expected to produce toxic waste products. This material facilitates the recycling and reuse of polyester resins. Plastic particles produced using this material can be recycled and used in the manufacture of other plastic parts.

Section 13

Disposal Information

Disposal: This resin is not RCRA regulated hazardous waste. Recycling should always be considered as the first and most desirable option. If not recyclable, then dispose of in accordance with applicable local, state and federal regulations.

See also Section 15 – Regulatory Information.

Section 14

Transportation Information

Status: This resin is not classified as a hazardous material for transportation purposes.

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Section 15

Regulatory Information

Toxic Substances Control Act (TSCA) METOL CBT resin is listed on the public US TSCA Chemical Substance Inventory.

Supplier Notification Requirements: As a new and innovative chemical, METOL CBT is currently regulated by the EPA/TSCA under the 'Significant New Use Rule' (SNUR). Obligations imposed by this SNUR apply equally to all users. The SNUR specifically requires that this material be stored, handled, processed and disposed without a predictable or purposeful release to surface waters. Please contact us directly if you have questions regarding this requirement.

EU Regulatory Notification: As stated by Council Directive 92/32/EEC dated April 30, 1992, METOL CBT resin is exempt from notification as a new substance in the European Union because it meets the definition of a polymer and is comprised solely of EINECS-listed monomers.

Section 16

Other Information

Disclaimer: This Material Safety Data Sheet (MSDS) information is provided based on the requirements of Hazard Communication Regulations. Metol Ltd does not warrant the suitability for use of this MSDS for any other material or product not specifically identified herein. Metol Ltd does not warrant the accuracy or authenticity of this MSDS unless it was obtained directly from Metol Ltd, or posted or viewed on the Metol Ltd website. Modification of this MSDS, unless specifically authorised by Metol Ltd, is strictly prohibited. This MSDS is based on information which is believed to be reliable, but may be subject to change as new information becomes available. Since it is not possible to anticipate all conditions of use, additional safety precautions may be required. As the use of this material is not under Metol Ltd's control, each user is responsible for making its own determination as to the safe and proper handling of this material in its own particular use of this material.

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ACGIH: American Conference of Governmental Industrial Hygienists.

CAS: Chemical Abstracts service

HMIS: Hazardous Material Information System

OSHA: Occupational Safety and Health Administration

PEL: Permissible Exposure Limit

PPE: Personal Protective Equipment

TWA: Time Weighted Average

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