# Newtop Chemical Materials (Shanghai) Co.,Ltd. Technical Indicators



# PC CAT PMDETA Catalyst Pentamethyldiethylenetriamine

#### Overview:

Pentamethyldiethylenetriamine is a chemical substance with the molecular formula C9H23N3. It is a highly efficient catalyst for polyurethane soft foam, used in the formulation of soft foam products, and also as an auxiliary catalyst for hard foam to improve the fluidity of PU foam in high-capacity refrigerators.

Pentamethyldiethylenetriamine Physical properties:

English name: N,N,N',N",N"-Pentamethyldiethylenetriamine

Molecular formula: C9H23N3 Molecular weight: 173.3

Physical and chemical properties

Pentamethyldiethylenetriamine is a colorless to light yellow clear liquid, easily soluble in water.

Purity: 98.0%

Viscosity (25°C): 2mPa.s

Relative density (20°C): 0.8302-0.8306 Flash point (closed loop):  $72^{\circ}$ C or so

Flash point (PMCC): 83.3℃

Boiling range:  $196-201^{\circ}$  or  $70-80^{\circ}$  (1100Pa)

Vapor pressure (21°C): 0.29\*133pa

Freezing point lt;-20°C Preparation method

Pentamethyldiethylenetriamine is generally obtained by N-methylation of diethylenetriamine as raw material, and the methylation methods are formic acid/formaldehyde method, formaldehyde hydrogenation method, etc.

Properties and Uses:

Pentamethyldiethylenetriamine is a highly active and strong foaming polyurethane catalyst, which can also be used to balance the overall foaming and gelation reaction. It is widely used in all kinds of polyurethane rigid foam, including polyisocyanuric acid sheet rigid foam, and also improves foam flow, so it can improve product production process and product quality.

PC CAT®PMDETA

PC CAT®PMDETA is a polyurethane catalyst.

Chemical name: 1,1,4,7,7-Pentamethyldiethylenetriamine

Function: Catalyst CAS No.: 3030-47-5

Compatible polymers and resins: Polyurethane (PU)

Synonyms: 2,2'-(methylazepanediyl)bis(N,N-dimethylethylamine),

2,5,8-trimethyl-2,5,8-triazanonane, bis(2-dimethylaminoethyl)(methyl)amine,

N,N,N',N",N'-pentamethyldiethylenetriamine

Address: Rm1104 ,No. 258, West SongXing Road, BaoShan District, Shanghai, China.

Mobile Phone: +0086-183 0190 3151 E-mail: info@newtopchem.com www.newtopchem.com

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## **Package**

Packed in clean, dry, sealed and leak-free special plastic drums with a net weight of 20kg/25kg/180kg per drum.

### Storage and transportation

When transporting Catalyst, it should be strictly protected from rain and staining, carefully and gently stored to prevent leakage from collision with hard objects. When storing Catalyst, it should be stored at room temperature in a ventilated and dry warehouse, avoiding humid environment, and the storage temperature should be kept below  $25^{\circ}$ C, avoiding sunlight as much as possible, and away from water and heat sources. To prevent moisture absorption and oxidation, it is recommended to fill the container with nitrogen.

#### **Shelf life**

Under proper storage conditions, the shelf life is 6 months from the date of manufacture, after which the product can be used after retesting.

### **Safety Information**

Catalyst is somewhat toxic and should be rinsed with soapy water promptly after contact with skin. Staff can wear eye protection or safety glasses for the purpose of eye protection. Eye wash and drenching equipment should be provided near the workplace. When working in places where contact with the product is possible, attention should be paid to personal hygiene and the skin in contact with the product should be washed with washing products before

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eating, smoking and leaving the workplace.

### Leak handling

Stop spills as much as possible while ensuring safety. If a minor spill is found, treat it with sand or other absorbent material and place it in a clean, dry container for subsequent disposal. If a large spill occurs, the spilled material should be collected for subsequent disposal. Avoid entering groundwater or surface water as the material is not readily biodegradable. All collected spilled material should be disposed of in accordance with local environmental regulations.

#### **Disclaimers**

The information and technical advice provided above has been obtained from our reliable sources, however, we make no express or implied warranties with respect to the data provided and make no promises herein. If our products are to be used, we recommend that they undergo a series of tests. The application, use, processing or production of products based on the technical information provided by us is beyond our control and therefore these responsibilities are the responsibility of the user. The condition and method of handling, storage, use or disposal of this product is beyond our control and may be beyond our knowledge, and in no event will we be liable for loss, damage or costs associated with the improper handling, storage, use or disposal of this chemical. For more information, please review the technical safety sheets for our products or contact our marketing services department.

#### **Uses:**

Promotes the reaction of hydroxyl functional groups with NCO

### **Safety Information:**

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#### Shelf life.

Keep unopened, two years

#### **Storage and transportation:**

Should be kept sealed and stored in a dry, cool and ventilated warehouse

#### **Packaging:**

200KG/drum Storage: It is recommended to store in dry and cool area with proper ventilation. Please fasten the lid as soon as possible after the original packaging to prevent the mixing of

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other substances such as water and other substances from affecting the product performance. Do not inhale dust and avoid skin and mucous membrane contact. Smoking, eating and drinking are prohibited in the workplace. After work, shower and change clothes. Store contaminated clothes separately and wash them before use. Maintain good hygiene habits.

Technical support and business contacts E-mail: info@newtopchem.com