

Pentamethyldiethylenetriamine CAS 3030-47-5 PC5

Overview:

Pentamethyldiethylenetriamine is a highly active catalyst for polyurethane reaction. It mainly catalyzes the foaming reaction and is also used to balance the overall foaming and gel reaction. It is widely used in various polyurethane rigid foams, including polyisocyanurate sheet rigid foams. Pentamethyldiethylenetriamine is a chemical substance with the molecular formula C₉H₂₃N₃. It is a high-efficiency catalyst for polyurethane soft foam. It is used in the formulation of soft foam products and can be used as an auxiliary catalyst for hard foam to improve the fluidity of PU foam in large-capacity refrigerators.

Alias: pentamethyldiethylenetriamine, PC-5 hard foam catalyst, PC5 catalyst, PC5

Chinese name N,N,N,N,N-pentamethyldiethylenetriamine

English name N,N,N',N'',N'''-Pentamethyldiethylenetriamine

Alias 1,1,4,7,7-Pentamethyldiethylenetriamine

CAS Registry Number 3030-47-5

Alias N,N,N',N'',N'''-pentamethyldiethylenetriamine, hard foam catalyst PC-5, PC5 catalyst, catalyst AM-1, PMDETA, hard foam catalyst AM-1

Molecular weight C₉H₂₃N₃

Chemical formula C₉H₂₃N₃

Molecular weight 173.3

Melting point -20°C

Boiling point 198°C

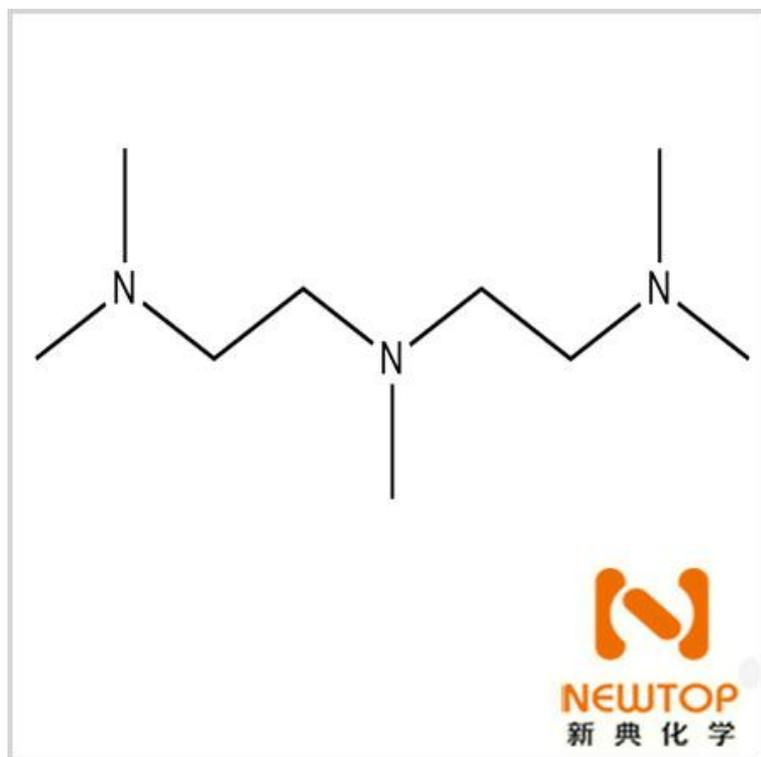
Water soluble, soluble in water, ether and alcohol solvents

Appearance Colorless or light yellow transparent liquid

Flash point 53°C

MDL number: MFCD00014876

Refractive index: 1.442(lit.)



Basic Information:

Chemical name: N, N, N', N', N'' -pentamethyldiethylenetriamine

Alias: pentamethyldiethyltriamine

Abbreviation: PMDETA

English name: N, N, N', N', N'' -pentamethyldiethylenetriamine.

Molecular formula: C₉H₂₃N₃

Relative molecular mass 173.3

CAS number 3030-47-5

Physical and chemical properties:

Pentamethyldiethylene triamine is a colorless to pale yellow clear liquid, easily soluble in water, the product purity is generally 98.0%, its typical physical properties are: viscosity (25 °C) 2mPa.s, relative density (20 °C) 0.8302- 0.8306, flash point (closed cup) about 72°C, flash point (PMCC) 83.3°C, boiling range 196-201°C or 70-80°C (1100Pa), vapor pressure (21 °C) 0.29*133Pa, freezing point <-20°C. Explosion limit: lower limit 1.1%, upper limit 5.6%. Refractive index 1.4435±0.0005, pH=11.0

Features and uses:

Pentamethyldiethylenetriamine is a highly active catalyst for polyurethane reaction. It mainly catalyzes the foaming reaction and is also used to balance the overall foaming and gel reaction. It is widely used in various polyurethane rigid foams, including polyisocyanurate sheet rigid foams. Because of its strong foaming effect, it can improve the fluidity of the foam, so it improves the production process of the product and increases the production capacity. It is often shared with DMCHA. Pentamethyldiethylenetriamine is used alone as a catalyst for polyurethane foam formulations, and can also be used with other catalysts. When used alone as a hard foam catalyst, the dosage range is 1.0-2.0 parts per 100 parts of polyol.

In addition to being used in hard foam formulations, pentamethyldiethylenetriamine can also be used in the production of polyether polyurethane soft foam and molded foam. For example, 70% of pentamethylene diamine is mainly used in the formulation of soft foam products. The catalyst has large activity, fast foaming speed, and the products have high toughness and high load-bearing capacity. 0.1-0.5 parts of the catalyst per 100 parts of polyether in soft foam can get better results. It can also be used as an auxiliary catalyst for hard foam.

Pentamethyldiethylene triamine quaternary ammonium salt is a soft foam delay catalyst, used to extend the foaming milk white time, suitable for complex shaped foam products and box foaming process, improve the cell structure and improve the molding quality. The range of its own dosage is quite wide, and the change of dosage has no obvious effect on the milking time; but increasing the dosage can shorten the foam rise time and shorten the curing time.

Hazard statement

Danger code: T

Danger level: 22-24-34

Security level: 26-36/37/39-45

UN number: UN2734

Storage and transportation:

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

package:

200KG/drum Storage: It is recommended to store in a dry and cool area with proper ventilation. After the original packaging, please fasten the packaging cover as soon as possible to prevent the water and other substances from mixing into the product and affecting its performance. Store in a cool, dry place, keep the container sealed and avoid contact with oxides. Do not breathe dust, avoid skin and mucous membrane contact. Smoking, eating and drinking are prohibited in the workplace. After work, shower and change clothes. Store contaminated clothing separately and wash it before reuse. Maintain good hygiene habits.

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FAQ

Q1: May I get one sample before placing order?

Re: Yes, Sample are available. For normal products, samples are for free and you just need to bear the freight; For those high value products, you just need to freight and certain product cost. When we both cooperate for some times or when you are our VIP customer, free sample will be offered when you need.

Q2: Which payment is available for your company?

Re: T/T, L/C ,You can choose the one which is convenient for you.

Q3: How and when can I get my goods after payment?

Re: For small quantity products, they will be delivered to you by international courier(DHL, FedEx, TNT etc.)

or by air. Usually it will cost 3-5days that you can get the goods after delivery.For large quantity products, shipping by sea is worthwhile.It will cost days to weeks to come to your destination port, which depends on where the port is.

Q4: Is there any possible to use my appointed label or package?

Re: Yes. If needed, we'd like to use label or package according to your requirement.

Q5: How can you guarantee the goods you offer is qualified?

Re: We always believe honesty and responsibility are basis of one company, so whatever products we provide for you all are qualified.