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成为全球领先的特殊化学品服务商



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上海浩登材料股份有限公司  
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JIANGSU CALE NEW MATERIAL CO.,LTD



## 企业文化 ENTERPRISE CULTURE

### 企业愿景

成为全球领先的特殊化学品服务商

### 企业使命

为社会、客户、员工创造价值

### 核心价值观

诚信、创新、责任、效率

### 品牌陈述

康 — 健康 以科技和责任为您的健康竭智尽力  
乐 — 快乐 用产品和服务为您的快乐全力以赴  
佳 — 佳绩 以最佳的产品，最佳的服务，做最佳的企业

## 公司简介 Company Profile

江苏康乐佳材料有限公司（原江苏康乐新材料科技有限公司）于江苏沿海经济开发区滨海化工园区，占地面积50000平方米，建筑面积12000平方米。公司设立于2006年5月，注册资本1600万元。江苏康乐佳材料有限公司是由创建于1984年的盐城市药物化工厂全额投资1亿元设立的生产基地。现有员工130人，其中种类专业技术人员45人。专业制造咪唑系列衍生物以及交联剂材料两大类品种，其中咪唑、2-甲基咪唑、咪唑醛为江苏省高新技术产品，咪唑、2-甲基咪唑通过了日本、美国等有关公司的第三方认证和ISO9001-2008质量管理体系认证。

江苏康乐佳材料有限公司拥有多位博士专家组成的科研团队，并与众多大专院校建立了长期的合作关系，也成立了技术研究中心和交联剂研究所，为公司的产品开发和升级增添后劲。

我公司的“康乐佳”品牌在业内已建立了良好的信誉，并拥有成熟的销售网络，与全球多家500强企业建立了业务合作关系。

我公司是以科技创新为核心的新型材料化工企业。本着“思进、思远、求新、求强”的精神理念，不断进取，开拓创新。在实现自身价值利益的同时，致力于为客户提供高性价比的产品和优质的服务，为员工创造长远的发展机会，为股东创造长期的收益回报，为社会承担应有责任，并做出持久的发展和贡献。

Jiangsu Cale New Material Co.,Ltd. located in Binhai Coastal Industry Park.It covers an area of 50000m<sup>2</sup> with 1200m<sup>2</sup> building area. Jiangsu Cale New Material Co. Ltd. was established in May 2006, the registered capital of RMB 16 million. Jiangsu Cale New Material Co., Ltd. formerly Yancheng Medical Chemical Factory, was founded in 1984, total investment of RMB 100 million to set up production base, currently has 130 employees including 45 professional technicians.Our main products are Imidazole Series and Crosslinker Series. Among them, Imidazole, 2-Methylimidazole and BCFI are High and New Technology products recommended by Jiangsu Province. Imidazole and 2-Methylimidazole have passed the Third-party Certification in Japan and USA. Our company possesses ISO9001-2008 Certificate as well.

Jiangsu Cale New Material Co.,Ltd. has established the long term cooperation relationship with various universities and also possesses a Research Center and an Institute of Crosslinker.This has laid the foundation for our company's development of new product and technology upgrade.

The brand "CALE" has obtained good reputation in the industry. It has worldwide sales network.We have established firm business relationships with many companies of Fortune 500.

Jiangsu Cale New Material Co.,Ltd, is a new material chemical company emphasized on scientific and technical innovation. We move forward steadily in the manner of "pursuing progress, outlooking future, seeking for change and strength". While achieving our goal, we aim at providing customers with best quality products and perfect services, creating boundless development room for our employees, bringing stockholder a long-term investing return, undertaking the corresponding social responsibility and making a due contribution to the society.



氮丙啶交联剂

POLYAZIRIDINE CROSSLINKER

HD-100	CAS NO.: 64265-57-2
HD-105	CAS NO.: 52234-82-9
HD-110	CAS NO.: 57116-45-7

异氰酸酯交联剂

POLYISOCYANATE CROSSLINKER

双组份用 DOUBLE-COMPONENT	HD-8655
	HD-8305
	HD-8310
	HD-8487
	HD-300
单组份用 ONE-COMPONENT	KL-1202



咪唑系列

IMIDAZOLE DERIVATIVES

咪唑	IMIDAZOLE	CAS NO.: 288-32-4
1-甲基咪唑	1-METHYLIMIDAZOLE	CAS NO.: 616-47-7
1-乙基咪唑	1-ETHYLIMIDAZOLE	CAS NO.: 7098-07-9
1-乙烯基咪唑	1-VINYLMIDAZOLE	CAS NO.: 1072-63-5
N,N'-羰基二咪唑	N,N'-CARBONYLDIIMIDAZOLE	CAS NO.: 530-62-1
1,2-二甲基咪唑	1,2-DIMETHYLIMIDAZOLE	CAS NO.: 1739-84-0
1-苄基-2-甲基咪唑	1-BENZYL-2-METHYLIMIDAZOLE	CAS NO.: 13750-62-4
1-苄基-2-苯基咪唑	1-BENZYL-2-PHENYLIMIDAZOLE	CAS NO.: 37734-89-7
1-氰乙基-2-甲基咪唑	1-CYANOETHYL-2-METHYLIMIDAZOLE	CAS NO.: 23996-55-6
1-氰乙基-2-乙基-4-甲基咪唑	2-ETHYL-4-METHYL-1H-IMIDAZOLE-1-PROPIONONITRILE	CAS NO.: 23996-25-0
1-氰乙基-2-苯基咪唑	2-PHENYLIMIDAZOLE-1H-IMIDAZOLE-1-PROPIONONITRILE	CAS NO.: 23996-12-5
2-甲基咪唑	2-METHYLIMIDAZOLE	CAS NO.: 693-98-1
2-甲基-5-硝基咪唑	2-METHYL-5-NITROIMIDAZOLE	CAS NO.: 88054-22-2
2-乙基咪唑	2-ETHYLIMIDAZOLE	CAS NO.: 1072-62-4
2-乙基-4-甲基咪唑	2-ETHYL-4-METHYLIMIDAZOLE	CAS NO.: 931-36-2
2-丙基咪唑	2-PROPYLIMIDAZOLE	CAS NO.: 50995-95-4
2-异丙基咪唑	2-ISOPROPYLIMIDAZOLE	CAS NO.: 36947-68-9
2-正丁基-4(5)-氯-5(4)-甲酰基咪唑 (别名: 咪唑醛)	2-BUTYL-4(5)-CHLORO-5(4)-IMIDAZOLE-4-CARBOXALDEHYDE	CAS NO.: 83857-96-9
2-苯基咪唑	2-PHENYLIMIDAZOLE	CAS NO.: 670-96-2
2-巯基苯并咪唑	2-MERCAPTOBENZIMIDAZOLE	CAS NO.: 583-39-1
2-溴-4-硝基咪唑	2-BROMO-4-NITROIMIDAZOLE	CAS NO.: 65902-59-2
4-甲基咪唑	4-METHYLIMIDAZOLE	CAS NO.: 822-36-6
4-甲基-2-苯基咪唑	4-METHYL-2-PHENYLIMIDAZOLE	CAS NO.: 827-43-0
4-碘咪唑	4-iodoimidazole	CAS NO.: 71759-89-2
4-硝基咪唑	4-NITROIMIDAZOLE	CAS NO.: 3034-38-6

## HD-100 三官能度交联剂

### 物理性质

性能	数值或状态	结构式
CAS号	64265-57-2	
外观	无色至淡黄色透明液体	
固含量	>99%	
粘度	200~400cp@25℃	
分子式及分子量	C <sub>24</sub> H <sub>41</sub> O <sub>6</sub> N <sub>3</sub> ; 467.67	
甲基氮丙啶基团含量	6.16摩尔/公斤	
密度	1.050~1.070g/ml @20℃	
凝固点	-15℃	
沸点范围	远大于200℃ (聚合)	
溶解性	水、醇、酮、酯等常溶剂中完全溶解	

### 建议用途

广泛应用于水性油墨、涂料、压敏胶、粘合剂等领域，对交联成膜产品的耐水洗、擦洗、化学品、及在各种基材上的附着力都有显著的改善；该交联剂属于环保型交联剂，交联后无甲醛等有害物质放出，且交联后成品无毒、无味。

### 使用方法

添加量通常为乳液固含量的1~3%，乳液pH值在8~9.5时加入最佳，切忌在酸性介质中使用。本品主要与乳液中的羧基发生交联反应，一般室温使用，60~80℃下烘烤效果更佳。客户应根据自身工艺需要进行测试确定。

本品属于双组份型交联剂，一旦加入到体系后建议在8~12小时内使用完毕，客户最好根据实际使用温度和配伍树脂体系自行测试其适用期。同时本品有轻微刺激性氨味，要小心处置并避免直接与皮肤和眼睛接触，尽量在通风环境中使用。喷涂时要特别注意口、鼻吸入，应戴专用口罩，手套，防护服操作。

### 包装储存

包装规格为4x5Kg塑桶、25Kg衬塑铁桶以及用户指定包装。本品在干燥、阴凉、密闭条件下储存，一定要避免和酸和氧化剂接触，避免冷冻。自生产之日起产品在原包装条件下的储存期为12个月。

## HD-100 Propylene Imine Tri-functional Polyaziridine

### Physical properties

Properties	Data	Chemical structure
CAS No.	64265-57-2	
Appearance	Colorless to light yellow transparent liquid	
Solid content (%)	>99%	
Viscosity (cp@25 C)	200~400	
Molecular Formula & Weight	C <sub>24</sub> H <sub>41</sub> O <sub>6</sub> N <sub>3</sub> ; 467.67	
Aziridine content	6.16 mol/kg	
Density (g/ml @20 C)	1.05~1.07	
Freezing/Boiling Point (°C)	-15/ Above 200	
Solubility	Soluble in water and many common organic solvents	

### Suggested Application

HD 100 is added to water based acrylic emulsion and polyurethane dispersions. It can be widely used in ink, coating, PSA, adhesive to improve the water, chemical, alcohol, detergent resistance and cohesive strength. It is also environmental-friendly, as the finished products is non-toxic and non-smell without any chemical hazards such as methanal after cross linking.

### Typical Application

The suggested addition is about 1%-3%, and optimum PH is 8-9.5. It must avoid acid chemicals. The product is react with carboxyl group in the emulsion or dispersion at room temperature or optimum temperature 60-80℃. It is used in two-component systems. The suggested pot life is 8-12hours once added to formulation. It has small ammonia smell, and should be used in the ventilated room and avoid the contact with skin and eyes. Anyway, the optimum condition will be determined according customers' requirements.

### Packaging

The standard package is 5kg/drum or 25kg/drum, or it can be packed according to customers' requirements. The product is stored in cool, dry warehouse avoid contact with acid and oxidized chemicals. The shelf life is 1 year.

## HD-105 三官能度交联剂

### 物理性质

性能	数值或状态	结构式
CAS号	52234-82-9	
外观	无色至淡黄色透明液体	
固含量	>99%	
粘度	150~250cp@25°C	
分子式及分子量	C <sub>21</sub> H <sub>35</sub> O <sub>6</sub> N <sub>3</sub> ; 425.53	
氮丙啶基团含量	6.77摩尔/公斤	
密度	1.1 g/ml @20°C	
凝固点	-15°C	
沸点范围	远大于200°C (聚合)	
溶解性	水、醇、酮、酯等常溶剂中完全溶解	

### 建议用途

广泛应用于水性和部分溶剂型油墨、涂料、压敏胶、粘合剂等领域，对交联成膜产品的耐水洗、擦洗、化学品、及在各种底材上的附着力都有显著的改善；该交联剂属于环保型交联剂，交联后无甲醛等有害物质放出，且交联后成品无毒、无味。

### 使用方法

添加量通常为乳液固含量的1~3%，乳液pH值在8~9.5时加入最佳，切忌在酸性介质中使用。本品主要与乳液中的羧基发生交联反应，一般室温使用，60~80°C下烘烤效果更佳。客户应根据自身工艺需要进行测试确定。

本品属于双组份型交联剂，一旦加入到体系后建议在8~10小时内使用完毕，客户最好根据实际使用温度和配伍树脂体系自行测试其适用期。同时本品有轻微刺激性氨味，要小心处置并避免直接与皮肤和眼睛接触，尽量在通风环境中使用。喷涂时要特别注意口、鼻吸入，应戴专用口罩，手套，防护服操作。

### 包装储存

包装规格为4x5Kg塑桶、25Kg衬塑铁桶以及用户指定包装。本品在干燥、阴凉、密闭条件下储存，一定要避免和酸和氧化剂接触，避免冷冻。自生产之日起产品在原包装条件下的储存期为12个月。

## HD-105 Ethylene Imine Tri-functional Polyaziridine

### Physical properties

Properties	Data	Chemical structure
CAS No.	52234-82-9	
Appearance	Colorless to light yellow transparent liquid	
Solid content (%)	>99%	
Viscosity (cp@25°C)	150~250	
Molecular Formula&Weight	C <sub>21</sub> H <sub>35</sub> O <sub>6</sub> N <sub>3</sub> ; 425.53	
Aziridine content	6.77 mol/kg	
Density (g/ml @20°C)	1.1	
Freezing Point (°C)	-15	
Boiling Point (°C)	Above 200	
Solubility	Soluble in water and many common organic solvents	

### Suggested Application

HD 105 is added to water based acrylic emulsion and polyurethane dispersions. It can be widely used in ink, coating, PSA, adhesive to improve the water, chemical, alcohol, detergent resistance and cohesive strength. It is also environmental-friendly, as the finished products is non-toxic and non-smell without any chemical hazards such as methanal after cross linking.

### Typical Application

The suggested addition is about 1%-3%, and optimum PH is 8-9.5. It must avoid acid chemicals. The product is react with carboxyl group in the emulsion or dispersion at room temperature or optimum temperature 60-80°C. There are two components for our product. The suggested pot life is 8-10 hours once added to emulsion or dispersion. It has small ammonia smell, and should be used in the ventilated room and avoid the contact with skin and eyes.

Anyway, the optimum condition will be determined according customers' requirements.

### Packaging & Storage

The standard package is 5kg/drum or 25kg/drum, or it can be packed according to customers' requirements. The product is stored in cool, dry warehouse avoid contact with acid and oxidized chemicals. The shelf life is 1 year.

## HD-110 三官能度交联剂

### 物理性质

性能	数值或状态	结构式
CAS号	57116-45-7	
外观	无色至淡黄色透明液体	
固含量	>99%	
粘度	<2000 cp@25°C	
分子式及分子量	C <sub>20</sub> H <sub>33</sub> O <sub>7</sub> N <sub>3</sub> ; 427.50	
氮丙啶基团含量	6.74摩尔/公斤	
羟基含量	2.34摩尔/公斤	
密度	1.18—1.20 g/ml @25°C	
凝固点/闪点	-10°C/>100°C	
溶解性	水、醇、酮、酯等常溶剂中完全溶解	

### 建议用途

广泛应用于水性和部分溶剂型油墨、涂料、压敏胶、粘合剂等领域，对交联成膜产品的耐水洗、擦洗、化学品、及在各种底材上的附着力都有显著的改善；该交联剂属于环保型交联剂，交联后无甲醛等有害物质放出，且交联后成品无毒、无味。

### 使用方法

通常为丙烯酸乳液或聚氨酯分散液固含量的1-3%，乳液pH值在9.0~9.5时加入最佳，切忌在酸性介质中使用。本品主要与乳液中的羧基发生交联反应，一般室温使用，60~80°C下烘烤效果更佳。客户应根据自身工艺需要进行测试确定。

本品属于双组份型交联剂，一旦加入到体系后建议在4~6小时内使用完毕，客户最好根据实际使用温度和配伍树脂体系自行测试其适用期。同时本品有轻微刺激性氨味，要小心处置并避免直接与皮肤和眼睛接触，尽量在通风环境中使用。喷涂时要特别注意口、鼻吸入，应戴专用口罩，手套，防护服操作。

### 包装储存

包装规格为4x5Kg塑桶、25Kg衬塑铁桶以及用户指定包装。本品在干燥、低温、密闭、避光（包括紫外与可见光）的场所储存，一定要避免同酸和氧化剂接触，避免冷冻或者高温。自生产之日起产品在原包装条件下的储存期为12个月。

## HD-110 Ethylene Imine Tri-functional Polyaziridine

### Physical properties

Properties	Data	Chemical structure
CAS No.	57116-45-7	
Appearance	Colorless to light yellow transparent liquid	
Solid content (%)	>99	
Viscosity (cp@25°C)	<2000	
Molecular Formula&Weight	C <sub>20</sub> H <sub>33</sub> O <sub>7</sub> N <sub>3</sub> ; 427.50	
Aziridine content (mol/Kg)	6.74	
Hydroxy content (mol/Kg)	2.34	
Density (g/ml @20°C)	1.18-1.20	
Freezing/Flash Point (°C):	-10/>100	
Solubility	Soluble water and common organic solvents	

### Suggested Application

HD 110 is added to water based acrylic emulsion and polyurethane dispersions. It can be widely used in ink, coating, PSA, adhesive to improve the water, chemical, alcohol, detergent resistance and cohesive strength. It is also environmental-friendly, as the finished products is non-toxic and non-smell without any chemical hazards such as methanal after cross linking.

### Typical Application

The suggested addition is about 1%-3%, and optimum PH is 8-9.5. It must avoid acid chemicals. The product is react with carboxyl group in the emulsion or dispersion at room temperature or optimum temperature 60-80°C. There are two components for our product. The suggested pot life is 4-6 hours once added to emulsion or dispersion. It has small ammonia smell, and should be used in the ventilated room and avoid the contact with skin and eyes. Anyway, the optimum condition will be determined according customers' requirements.

### Packaging & Storage

The standard package is 5kg/drum or 25kg/drum, or it can be packed according to customers' requirements. The product is stored in cool, dry warehouse avoid contact with acid and oxidized chemicals. The shelf life is 1 year.

## HD-8655

### 基本物性

物性	理论值
粘度 (25°C)	2500-4500 mPa·s
ω(-NCO)/%	21-22%
Hazen色值	≤100
HDI单体含量	< 0.15
固含量 (%)	100%

### 特性

基于六亚甲基二异氰酸酯的亲水性脂肪族聚异氰酸酯，用于水性双组分聚氨酯体系的固化剂。

### 特性/应用

HD-8655是一种适用于水性体系的交联剂；此类水性体系需具有结合稳定性和耐化学品性好的特点。尽管该固化剂的亲水性相对较弱，但在水相下，甚至在商用中常见的低剪切力的情况下，易于乳化。使用该产品制备而成的涂料可形成高光低雾影膜。一般与亲水性固化剂，尤其是离子型亲水性多元醇分散体混合时，可以预先使用水稀释或添加少量有机共溶剂以控制粘度升高。由于具有适中的亲水性和高官能度之间的平衡，使用HD-8655制备而成的水性双组份聚氨酯涂料具有快干、硬化快速的特点，形成的膜则具有最终硬度高和极佳的耐化学品性特点。

### 溶解性

HD-8655一般与下列有机溶剂有好的相容性：如酯类、醚酯类。但任何情形下必须测试所配溶液的溶解性/混溶性。只能使用聚氨酯级溶剂(水含量<0.05%)。

### 储存

- 储存于密封容器中
- 推荐储存温度：0-30°C
- 避免强烈潮气、热和外来物质
- 储存期：6个月

亲水性异氰酸酯对湿气非常敏感，与水生成二氧化碳和不溶的脲。必须时刻保持容器密封良好。必须避免任何形式的水分（湿气溶剂和含潮气物）进入，因为与水反应产生的二氧化碳会导致容器压力上升、颜色加深和粘度增大。

上海浩登材料股份有限公司(江苏康乐佳材料有限公司)  
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邮箱：sales@chinaimidazole.com 网址：www.calechem.com

## HD-8655

### Basic Physical Property

Physical property	Theoretical value
Viscosity (25°C)	2500-4500 mPa·s
ω(-NCO)/%	21-22%
Color value (Hazen)	≤100
HDI monomer content	< 0.15
Solid content(%)	100%

### Characterization:

Hydrophilic aliphatic polyisocyanate based on hexamethylene diisocyanate, as the hardener component for aqueous two-component polyurethane systems.

### Properties/Applications:

HD-8655 is the crosslinking agent suit for waterborne system; this type of aqueous system needs to have characteristic as good combination stability and chemical resistance. Even this curing agent has quite weak hydrophilia, it's easy to emulsify in aqueous phase, even in the case of low shear force which is common in commercial use. The coating made by this product can form the film with highlight and low haze. Usually when we mix it with hydrophilic curing agent, especially the ionic type polyhydric alcohols dispersions, we can dilute with water or add few organic co-solvents in advance to control the viscosity to go up. Due to the balance of modest hydrophilia and high functionality, the aqueous two-component polyurethane coating made by HD-8655 has the specialty as quick-drying, quick hardening, the formed film has the specialty as high hardness and extraordinary chemical resistance.

### Solubility:

Generally speaking, HD-8655 has good compatibility with the following organic solvents: esters, ether esters. In all cases the prepared solutions must be tested for their solubility and compatibility. Only PU grade solvents should be used (max. 0.05% water).

### Storage:

- Storage in sealed container.
- Recommended storage temperature: 0-30 °C
- Protect from moisture, heat and foreign material
- Storage time: six months

Hydrophilic isocyanates are very moisture-sensitive and react with water to form carbon dioxide and insoluble ureas. The containers must always be kept tightly closed. The access of water in all forms (moist air, solvents, and moist containers) must be prevented, because the generation of carbon dioxide can lead to increase of pressure in the container, color and viscosity.

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Email: sales@chinaimidazole.com Website: www.calechem.com

## HD-8305

### 基本物性

物性	理论值
粘度 (25℃)	4500-6500 mPa·s
ω(-NCO)/%	15.7-16.7%
Hazen色值	≤150
HDI单体含量	< 0.15
固含量 (%)	100%

### 特性

基于六亚甲基二异氰酸酯的亲水性脂肪族聚异氰酸酯，用于水性双组分聚氨酯体系的固化剂。

### 特性/应用

HD-8305为水性涂料的交联剂。它特别适合通过摇动或手工搅拌后便即可混即用的民用领域使用。即使在预稀释条件下，涂膜仍透明光亮。研基料与固化剂的混合比例通常为10:1。

### 溶解性

HD-8305一般与下列有机溶剂有好的相容性：如酯类、醚酯类、二甲苯和溶剂石脑油100。但任何情形下必须测试所配溶液的溶解性/混溶性。只能使用聚氨酯级溶剂(水含量<0.05%)。

### 储存

- 储存于密封容器中
- 推荐储存温度：0-30℃
- 避免强烈潮气、热和外来物质
- 储存期：6个月

亲水性异氰酸酯对湿气非常敏感，与水生成二氧化碳和不溶的脲。必须时刻保持容器密封良好。必须避免任何形式的水分（湿气溶剂和含潮气物）进入，因为与水反应产生的二氧化碳会导致容器压力上升、颜色加深和粘度增大。

## HD-8305

### Basic Physical Property

Physical property	Theoretical value
Viscosity (25℃)	4500-6500 mPa·s
ω(-NCO)/%	15.7-16.7%
Color value (Hazen)	≤150
HDI monomer content	< 0.15
Solid content(%)	100%

### Characterization:

HD-8305 is hydrophilic aliphatic polyisocyanate based on hexamethylene diisocyanate, as the hardener component for aqueous two-component polyurethane systems.

### Properties/Applications:

HD-8305 is the crosslinker for aqueous coating. It's perfect for civilian field as using it immediately after shaking or manual stirring. Even under the pre-dilution condition, the film is still transparent and shining. Usually the mixing ratio of lapping material and hardener is 10:1.

### Solubility:

Generally speaking, HD-8305 has good compatibility with the following organic solvents, such as esters, ether esters, xylene and Solvent naphtha100. In any cases the prepared solutions must be tested for their solubility and compatibility. Only PU grade solvents should be used with the water content is 0.05% max.

### Storage:

- Storage in sealed container.
- Recommended storage temperature is from 0 to 30 °C
- Protect from moisture, heat and foreign material
- Storage time is six months

Hydrophilic isocyanates are very moisture-sensitive and react with water to form carbon dioxide and insoluble ureas. The containers must always be kept tightly closed. The access of water in all forms including moist air, solvents, and moist containers must be prevented, because the generation of carbon dioxide can lead to increase of pressure in the container, color and viscosity.



## HD-8310

### 基本物性

物性	理论值
粘度 (25℃)	2000-4000 mPa·s
ω(-NCO)/%	16.8-17.8%
Hazen色值	≤100
HDI单体含量	< 0.15
固含量 (%)	100%

### 特性

基于六亚甲基二异氰酸酯的亲水性脂肪族聚异氰酸酯，用于水性双组分聚氨酯体系的固化剂。

### 特性/应用

HD-8310为水性涂料的交联剂。由于HD-8310具有亲水性，故易在水性介质中乳化。还可将HD-8310加入传统无羟基的分散体中，以改善其特性。

### 溶解性

HD-8310一般与下列有机溶剂有好的相容性：如酯类、醚酯类、二甲苯和溶剂石脑油100。但任何情形下必须测试所配溶液的溶解性/混溶性。只能使用聚氨酯级溶剂(水含量<0.05%)。

### 储存

- 储存于密封容器中
- 推荐储存温度：0-30℃
- 避免强烈潮气、热和外来物质
- 储存期：6个月

亲水性异氰酸酯对湿气非常敏感，与水生成二氧化碳和不溶的脲。必须时刻保持容器密封良好。必须避免任何形式的水分（湿气溶剂和含潮气物）进入，因为与水反应产生的二氧化碳会导致容器压力上升、颜色加深和粘度增大。

## HD-8310

### Basic Physical Property

Physical property	Theoretical value
Viscosity (25℃)	2000-4000 mPa·s
ω(-NCO)/%	16.8-17.8%
Color value (Hazen)	≤100
HDI monomer content	< 0.15
Solid content(%)	100%

### Characterization:

HD-8310 is the hydrophilic aliphatic polyisocyanate based on hexamethylene diisocyanate, as the hardener component for aqueous two-component polyurethane systems.

### Properties/Applications:

HD-8310 is the crosslinker for aqueous coating. Because of its hydrophilic character, HD-8310 can be easily emulsified in the aqueous phase. HD-8310 can be also added to OH-free dispersions to improve their properties.

### Solubility:

Generally speaking, HD-8310 has good compatibility with the following organic solvents such as esters, ether esters, xylene and Solvent naphtha100. In all cases the prepared solutions must be tested for their solubility and compatibility. Only PU grade solvents should be used with the water content is 0.05% max.

### Storage:

- Storage in sealed container.
- Recommended storage temperature is from 0 to 30 °C
- Protect from moisture, heat and foreign material
- Storage time is six months

Hydrophilic isocyanates are very moisture-sensitive and react with water to form carbon dioxide and insoluble ureas. The containers must always be kept tightly closed. The access of water in all forms including moist air, solvents, and moist containers must be prevented, because the generation of carbon dioxide can lead to increase of pressure in the container, color and viscosity.

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## HD-8487

### 基本物性

物性	理论值
粘度 (25°C)	4500-6500 mPa·s
ω(-NCO)/%	20-21%
Hazen色值	≤100
HDI单体含量	< 0.15
固含量 (%)	100%

### 特性

基于六亚甲基二异氰酸酯的亲水性脂肪族聚异氰酸酯，用于水性双组分聚氨酯体系的固化剂。

### 特性/应用

HD-8487是用于混溶稳定性和耐化学品性要求高的水性体系的交联剂。产品在水中的分散性受到有机共溶剂的影响。使用高憎水型或高亲水型共溶剂如乙酸丁酯，二甲苯，丁基乙二醇乙酸酯，二甲基甲酰胺或N-甲基吡咯烷酮时会形成粗分散体，可能导致漆膜浑浊。

### 溶解性

HD-8487一般与下列有机溶剂有好的相容性：如酯类、醚酯类。但任何情形下必须测试所配溶液的溶解性/混溶性。只能使用聚氨酯级溶剂(水含量<0.05%)。

### 储存

- 储存于密封容器中
- 推荐储存温度：0-30°C
- 避免强烈潮气、热和外来物质
- 储存期：6个月

亲水性异氰酸酯对湿气非常敏感，与水生成二氧化碳和不溶的脲。必须时刻保持容器密封良好。必须避免任何形式的水分（湿气溶剂和含潮气物）进入，因为与水反应产生的二氧化碳会导致容器压力上升、颜色加深和粘度增大。

## HD-8487

### Basic Physical Property

Physical property	Theoretical value
Viscosity (25°C)	4500-6500 mPa·s
ω(-NCO)/%	20-21%
Color value (Hazen)	≤100
HDI monomer content	< 0.15
Solid content(%)	100%

### Characterization:

Hydrophilic aliphatic polyisocyanate based on hexamethylene diisocyanate, as the hardener component for waterborne two-component polyurethane systems.

### Properties/Applications:

HD-8487 is the crosslinking agent for waterborne system from which reliable incorporation and high chemical resistance are required. The dispersibility of the product in the water is affected by the organic cosolvent. The use of highly hydrophobic and high-hydrophilic cosolvent, such as butyl acetate, dimethyl benzene, butyl glycol acetate, dimethylformamide or 1-Methyl-2-pyrrolidinone will form the coarse dispersion which may lead to the film to be muddy.

### Solubility:

Generally speaking, HD-8487 has good compatibility with the following organic solvents: esters, ether esters. However, in each case the prepared solutions must be tested for their solubility and compatibility. Only PU grade solvents should be used with the water content is 0.05% max.

### Storage:

- Storage in sealed container.
- Recommended storage temperature: 0-30 °C
- Protect from moisture, heat and foreign material
- Storage time: six months

Hydrophilic isocyanates are very moisture-sensitive and react with water to form carbon dioxide and insoluble ureas. The containers must always be kept tightly closed. The access of water in all forms (moist air, solvents, and moist containers) must be prevented, because the generation of carbon dioxide can lead to increase of pressure in the container, color and viscosity.

## HD-300 长效型氮丙啶交联剂

### 物理性质

性能	数值或状态
外观	无色至淡黄色透明液体
粘度	30 ~ 100cp@25°C
密度	1.09g/ml @20°C
溶解性	水、醇、酮、酯等常溶剂中完全溶解

### 产品概述

HD-300是一种氮丙啶改性异氰酸酯交联剂，外观为无色至淡黄色透明液体，既可溶于常规溶剂中也可溶于水。添加到粘合剂、各种树脂、高分子化合物等分散液或水溶液中使用，经干燥、热处理后可以充分地发挥其卓越性能。HD-300水溶液室温条件下（25°C左右）的存储期大于10天，可达30天甚至更久。该交联剂属于中低温、环保型交联剂，交联后无甲醛等有害物质放出，且交联后成品无毒、无味。

### 建议用途

- 添加到涂料印花浆中，可以有效提高印花的耐摩擦牢度与手感，而且无甲醛放出；
- 添加到水性丙烯酸树脂与水性聚氨酯乳液中使用，热处理后可以显著提高粘合强度；
- 添加到任何带有氨基、羧基、羟基的树脂乳液中，经干燥、热处理后可以有效提高树脂的强度与耐摩擦度；
- 添加到棉及涤棉处理浆中一起使用，可以提高它们的耐久拒水拒油强度；
- 添加到丁苯类胶乳水溶性粘合剂中使用，热处理后能显著提高粘合强度；
- 添加到其它任何带有烘烤工艺的浆液中一起使用，可以明显改善涂层的耐擦洗、耐磨擦、耐化学腐蚀与耐候性。

### 使用方法

加入方式：HD-300可以在剧烈搅拌下将其直接加到体系中，对于水型丙烯酸乳液与水性聚氨酯分散液，也可以选择HD-300：水=1：1的比例加入；

添加量：通常为丙烯酸乳液或聚氨酯分散液固含量的1~3%，特殊情况下可以加到最多量为5%，具体的添加量客户可根据实际情况自行确定。

体系pH：乳液及分散液体系的pH在8.0~10之间使用HD-300最佳，切忌在酸性介质中使用。

适用期：HD-300属于长效型氮丙啶交联剂，加入到体系中室温条件下（25°C）存储期一般较长，可达数月甚至数月，由于客户树脂体系存在差异，具体的适用期客户需自行测试。

处理温度：HD-300属于中低温固化交联剂，处理温度在60~80°C之间即可获得较好效果。

### 包装储存

包装规格为4x5Kg塑桶、25Kg衬塑铁桶以及用户指定包装。本品在干燥、阴凉、密闭条件下储存，一定要避免和酸和氧化剂接触。

建议存储温度在10~25°C之间，存储温度过低，产品可能会发生凝固现象，加热可使其融化，融化后可正常使用，不会影响产品性能。

## HD-300 Long-acting Aziridine Crosslinker

### Physical properties

Properties	Data
Appearance	colourless to yellowish transparent liquid
Viscosity	30 ~ 100cp@25 C
Density	1.09g/ml @20 C
Solubleness	completely dissolved in water, alcohol, ketone, ester and other general solvent

### Product overview

HD-300 is a type of isocyanate crosslinker modified with aziridine, it is colourless to yellowish transparent liquid, and can be dissolved in general solvent as well as water. By adding it into the adhesive, all kinds of resins, dispersion or aqueous solution with high-molecular compound, the performance will be much better after drying and heating. The shelf life of HD-300 aqueous solution (Volume ratio HD-300 : water =1:1) is around 10days or 30days for the longest at room temperature (around 25 C ). HD-300 is a crosslinker with medium or low temperature, environment friendly, no formaldehyde and other toxic substance releasing after crosslinking.

### Suggested Application

- Add it into the printing binder, and it can greatly improve the abrasion and hand felling without formaldehyde releasing
- Add it into the waterbased acrylic resin and polyurethane emulsion, it can greatly improve the adhesive strength after heating;
- Add it into resin emulsions which contain amino, carboxyl and hydroxyl groups, it can greatly improve the strength and abrasion of resin;
- Add it into cotton and CVC processing pulp, it can improve their strength on anti-water, oil and so on;
- Add it into butylbenzene latex, it can greatly improve the strength.
- Add it into emulsions with baking technologists, it can greatly improve anti-abrasion, anti-chemicals and so on.

### Application method

Adding method: HD-300 can be added into the system directly during strong stirring,. For the acrylic emulsion and water type polyurethane dispersion, HD-300 can be dilute with water which the volume ratio is 1:1 in advance.

Adding volume: It's usually 1~3% of solid content of the acrylic emulsion or polyurethane dispersion, the maximum could be 5%. The exact quantity should be determined by customers.

System pH: The optimal PH value is 8.0~10. It can't be used in acid systems.

Pot life : HD-300 is long-acting aziridine crosslinker, and the pot life is usually several days or even months after adding it into the system at room temperature (25 C ), but it is demined by different customers.

Processing temperature: HD-300 is middle or low temperature curing crosslineker, and the optimal processing temperature between 60~80 C .

### Packaging & Storage

The packaging size is 4\*5kg plastic drum, 25 kg plastic-lined iron drum and other packaging assigned by the client. Store this product in dry, cool and dark, airtight condition, must avoid the contact of acid and oxidizing agent.

Recommended storage temperature is around 10 to 25 C . The product may freeze at lower temperature, it can be heated before using without any influence of the performance of the product.

## KL-1202 水性非离子封闭型交联剂

### 物理性质

性能	数值或状态
外观	淡黄色透明液体
主单体构成	脂肪族
固含量 (%)	60±2
粘度 (mPa.s) 25°C	310±20
pH值	7
NCO含量 (%)	9.0±0.2
游离单体含量 (%)	≤0.2
分散性	水、乙酸乙酯、石油醚等
溶剂	醚酯类
解封温度 (°C)	110-120
耐擦拭性 (次), (丁酮, 参考值)	160

### 建议用途

适用于水性树脂体系：如水性丙烯酸酯和水性聚氨酯，提高涂层的附着力，强度及硬度等。  
可与树脂配制成单组分体系，涂膜性能取决于处理工艺、交联剂的添加量及体系的羟值。

### 使用方法

KL-1202在酸性、碱性及中性等水性体系中均可使用，通常添加量为体系总量的3-5%，处理温度需高于110°C，温度越高处理时间越短，固化速度越快。

### 包装储存

包装规格为4x5Kg塑桶、25Kg衬塑铁桶以及用户指定包装。  
放置于凉爽、通风、干燥的地方，室温下可储存12个月以上，如果储存温度过高，时间过长，则易出现变色，凝胶、损坏及变质。

## KL-1202 Hydrophilic, Non-ionic and Blocked Crosslinker

### Physical properties

Properties	Value or Status
Appearance	Light yellow transparent liquid
Type of monomer	Aliphatic
Solid content (%)	60±2
Viscosity (mPa.s) 25°C	310±20
pH value	7
Solubility	Easily dispersed in water
NCO content (%)	9.0±0.2
Free monomer content (%)	≤0.2
Dispersion property	Water, ethyl acetate, petroleum ether, etc.
Solvent in it	ether & ester
Deblocking temperature (°C)	110-120
Scratch resistance (times), (MEK, reference value)	160

### Suggested Application

KL-1202 is a kind of hydrophilic, non-ionic, blocked polyfunctional isocyanate, which is usually added to waterborne resins, such as water-based acrylate and polyurethane resins, and it can provide better adhesion, tensile strength, and hardness of coatings. It is used in one-component coatings or adhesives.

### Typical Application

KL-1202 can be used in acidic, alkaline or neutral water-based systems. Usually, the addition of crosslinker is 3-5% of the total formulation. Customer may adjust the addition to meet their requirements. The process temperature should be higher than 110 °C, and the higher temperature, the faster cure speed.

### Packaging & Storage

The standard package is 5kg/drum or 25kg/drum, or it can be packed according to customers' requirements. The product is stored in cool, dry warehouse avoid contact with acid and oxidized chemicals. The shelf life is 1 year.

## 咪唑

### 物理性质

性能	数值或状态	结构式
CAS号	288-32-4	
外观	白色至类白色结晶或片状固体	
含量	>99.0%	
熔点	87.0 ~ 91.0°C	
分子式及分子量	C <sub>3</sub> H <sub>4</sub> N <sub>2</sub> ; 68.08	
水分	<0.5%	
溶解性	易溶于水、乙醇、乙醚、氯仿、吡啶；微溶于苯，极微溶于石油醚。	

### 建议用途

1. 环氧树脂中高温固化剂，固化促进剂
2. 医药中间体，用于咪康唑、酮康唑等
3. 农药中间体，用于生产咪鲜胺

### 使用方法

该产品主要用于医药品、农药、摄影用药，金属表面处理剂，有机合成原料。直接用作固化剂的较少，可用于配置其他环氧树脂固化剂。

本品有轻微刺激性氨味，要小心处置并避免直接与皮肤和眼睛接触，尽量在通风环境中使用。特别注意口、鼻吸入，应戴专用口罩，手套，防护服操作。

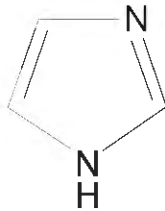
### 包装储存

包装规格为25Kg纸板桶、用户指定包装。本品在干燥、阴凉，密闭条件下储存，一定要避免和酸和氧化剂接触。自生产之日起产品在原包装条件下的储存期为12月；非易燃、易爆品，但有一定的腐蚀性，属于普危化品。

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## Imidazole

### Physical properties

Properties	Data	Chemical structure
CAS NO.	288-32-4	
Appearance	White to off white crystal or flake	
Content	>99.0%	
Melting Point	87.0 ~ 91.0°C	
Molecule formula and weight	C <sub>3</sub> H <sub>4</sub> N <sub>2</sub> ; 68.08	
Water Content	<0.5%	
Solubility	Soluble in water, ethanol, ether, chloroform, pyridine; Slightly soluble in benzene; Very slightly soluble in petroleum ether	

### Application

1. Curing agent or accelerator of epoxy resins
2. Pharmaceutical intermediates, for the synthesis of miconazole, ketoconazole and so on
3. Pesticides intermediates, for the synthesis of prochloraz, imazalil and so on

### Instruction

It is used as curing agent or accelerator in epoxy systems. It is also used in pharmaceutical industry and pesticide. This product has a bit irritant sell. Do not get in eyes, on skin or on clothing. Avoid breathing vapor, mist or spray. Use with adequate ventilation. Gloves and mask are needed.

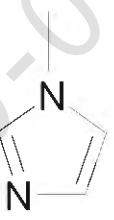
### Storage

Imidazole is supplied in 25Kg drum or the user's appointed packages. It should be stored at room temperature in the original sealed container away from excessive heat and humidity. Please avoid acid and oxidant. Under these storage conditions, the shelf life is 1 year.

Shanghai Holdenchem Co., LTD. /Jiangsu Cale New Material Co., Ltd.  
 ADD: Zhongshan 3rd road, Coastal Chemical Industry Park, Yancheng, China.  
 Tel: +86(515)88335818/88334667/88203550 Postal code: 224555  
 Email: sales@chinaimidazole.com Website: www.calechem.com

## 1-甲基咪唑

### 物理性质

性能	数值或状态	结构式
CAS号	616-47-7	
外观	无色至淡黄色透明液体	
含量	≥99.0%	
沸点	≥198°C	
分子式及分子量	C <sub>4</sub> H <sub>6</sub> N <sub>2</sub> ; 82.10	
水分	≤0.5%	

### 建议用途

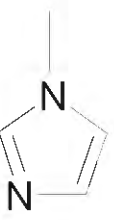
- 1、有机合成中间体
- 2、半硬泡和硬泡中聚氨酯催化剂
- 3、搭配双氰胺或酸酐固化剂的促进剂

### 包装储存

包装规格为200Kg塑桶、用户指定包装。本品在干燥、阴凉、密闭条件下储存，一定要避免和酸和氧化剂接触。自生产之日起产品在原包装条件下的储存期为12月；非易燃、易爆品，但有一定的腐蚀性，属于普危品。

## 1-Methylimidazole

### Physical properties

Properties	Data	Chemical structure
CAS NO.	616-47-7	
Appearance	Colorless to yellowish transparent liquid	
Content	≥99.0%	
Boiling Point	≥198 C	
Molecule formula and weight	C <sub>4</sub> H <sub>6</sub> N <sub>2</sub> ; 82.10	
Water Content	≤0.5%	

### Application

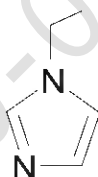
1. Intermediates for organic synthesis
2. Polyurethane catalyst for semi-rigid foam and rigid foam
3. Accelerator for dicyandiamide or anhydride curing agents

### Storage

1-Methylimidazole is supplied in 200Kg plastic drum or the user's appointed packages. It should be stored at room temperature in the original sealed container away from excessive heat and humidity. Please avoid acid and oxidant. Under these storage conditions, the shelf life is 1 year.

## 1-乙基咪唑

### 物理性质

性能	数值或状态	结构式
CAS号	7098-07-9	
外观	无色至淡黄色透明液体	
含量	≥98.0%	
分子式及分子量	C <sub>5</sub> H <sub>8</sub> N <sub>2</sub> ; 96.13	
水分	≤0.5%	

### 建议用途

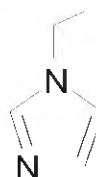
- 1、有机合成中间体
- 2、环氧固化剂

### 包装储存

包装规格为200Kg塑桶、用户指定包装。本品在干燥、阴凉、密闭条件下储存，一定要避免和酸和氧化剂接触。自生产之日起产品在原包装条件下的储存期为12月；非易燃、易爆品，但有一定的腐蚀性，属于普危品。

## 1-Ethylimidazole

### Physical properties

Properties	Data	Chemical structure
CAS NO.	7098-07-9	
Appearance	Colorless to yellowish transparent liquid	
Content	≥98.0%	
Molecule formula and weight	C <sub>5</sub> H <sub>8</sub> N <sub>2</sub> ; 96.13	
Water Content	≤0.5%	

### Application


1. Intermediates for organic synthesis
2. Curing agent for epoxy resin

### Storage

1-Ethylimidazole is supplied in 200Kg plastic drum or the user's appointed packages. It should be stored at room temperature in the original sealed container away from excessive heat and humidity. Please avoid acid and oxidant. Under these storage conditions, the shelf life is 1 year.

## 1-乙烯基咪唑

### 物理性质

性能	数值或状态	结构式
CAS号	1072-63-5	
外观	无色至淡黄色透明液体	
含量	≥99.0%	
沸点	184 ~ 192°C	
分子式及分子量	C <sub>5</sub> H <sub>6</sub> N <sub>2</sub> ; 94.12	
水分	≤0.5%	

### 建议用途


- 1、有机合成中间体;
- 2、化学助剂;
- 3、UV涂料(油墨,胶黏剂,普通涂料)的活性反应稀释剂,经常在紫外光固化涂料中与乙烯基吡咯烷酮结合使用;
- 4、汽车丙烯酸酯类修补漆的添加剂;
- 5、水性特种聚合物(石油和化妆品)的单体;
- 6、油和润滑油的添加剂;

### 包装储存

包装规格为200Kg塑桶、用户指定包装。本品在干燥、阴凉、密闭条件下储存,一定要避免和酸和氧化剂接触。自生产之日起产品在原包装条件下的储存期为12月;非易燃、易爆品,但有一定的腐蚀性,属于普危品。

## 1-Vinylimidazole

### Physical properties

Properties	Data	Chemical structure
CAS NO	1072-63-5	
Appearance	Colorless to yellowish transparent liquid	
Content	≥99.0%	
Boiling Point	184 ~ 192 °C	
Molecule formula and weight	C <sub>5</sub> H <sub>6</sub> N <sub>2</sub> ; 94.12	
Water Content	≤0.5%	

### Application

1. Intermediates for organic synthesis
2. Chemical additives
3. Reactive diluent for UV coatings (ink, adhesives, general coating), always combined with Vinylpyrrolidone in UV coatings
4. Additive in automobile acrylic repair paint
5. Monomer of aqueous polymer (oil and cosmetic)
6. Additive in oil and lubricating oil

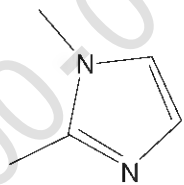
### Storage

1-Vinylimidazole is supplied in 200Kg plastic drum or the user's appointed packages. It should be stored at room temperature in the original sealed container away from excessive heat and humidity. Please avoid acid and oxidant. Under these storage conditions, the shelf life is 1 year.



## 1, 2-二甲基咪唑

### 物理性质

性能	数值或状态	结构式
CAS号	1739-84-0	
外观	白色熔融态晶体	
含量	≥98.5%	
熔点	38~41℃	
分子式及分子量	C <sub>5</sub> H <sub>8</sub> N <sub>2</sub> ; 96.13	
水分	≤1.0%	
溶解性	易溶于水、乙醇、乙醚、氯仿、吡啶	

### 建议用途

聚氨酯凝胶催化剂；

1,2-二甲基咪唑，凝胶催化剂，适用于聚氨酯硬泡和微孔弹性体，用于延迟发泡及改善固化。

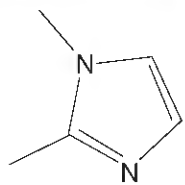
本品有轻微刺激性氨味，要小心处置并避免直接与皮肤和眼睛接触，尽量在通风环境中使用。特别注意口、鼻吸入，应戴专用口罩，手套，防护服操作。

### 包装储存

包装规格为150Kg塑桶、用户指定包装。本品在干燥、阴凉，密闭条件下储存，一定要避免和酸、氧化剂接触。自生产之日起产品在原包装条件下的储存期为12月；非易燃、易爆品，但有一定的腐蚀性，属于普危品。

## 1, 2-Dimethylimidazole

### Physical properties

Properties	Data	Chemical structure
CAS NO.	1739-84-0	
Appearance	White molten crystal	
Content	≥98.5%	
Melting Point	38~41℃	
Molecule formula and weight	C <sub>5</sub> H <sub>8</sub> N <sub>2</sub> ; 96.13	
Water Content	≤1.0%	
Solubility	Soluble in water, ethanol, ether, chloroform, pyridine	

### Application

Catalyst in polyurethane

1, 2-Dimethylimidazole is a catalyst which is applied in polyurethane rigid foam and elastomer to extend the pot life, fasten the reaction and increase the final cross-link density.

This product has a bit irritant smell. Do not get in eyes, on skin or on clothing. Avoid breathing vapor, mist or spray. Use with adequate ventilation. Gloves and mask are needed.

### Storage

1, 2-Dimethylimidazole is supplied in 150Kg plastic drum or the user's appointed packages. It should be stored at room temperature in the original sealed container away from excessive heat and humidity. Please avoid acid and oxidant. Under these storage conditions, the shelf life is 1 year.

## 2-甲基咪唑

### 物理性质

性能	数值或状态	结构式
CAS号	693-98-1	
外观	白色至类白色结晶性粉末	
含量	≥99.0%	
熔点	140~146℃	
分子式及分子量	C <sub>4</sub> H <sub>6</sub> N <sub>2</sub> ; 82.10	
水分	≤0.5%	
溶解性	溶于水、乙醇、丙酮、苯	

### 建议用途

- 1、常用于粉末涂料、覆铜板及EMC的固化促进剂
- 2、医药中间体

### 使用方法

作为促进剂使用，一般添加量为1~3% (wt)，固化工艺：120℃/30min；150℃凝胶时间40分钟(4%添加，环氧树脂：DER-664)。

本品属于双组份型固化剂，一旦加入到体系后建议在4小时内使用完毕，客户最好根据实际使用温度和配伍树脂体系自行测试其适用期。

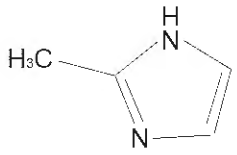
本品有轻微刺激性氨味，要小心处置并避免直接与皮肤和眼睛接触，尽量在通风环境中使用。特别注意口、鼻吸入，应戴专用口罩，手套，防护服操作。

### 包装储存

包装规格为25Kg桶、用户指定包装。本品在干燥、阴凉，密闭条件下储存，一定要避免和酸和氧化剂接触。自生产之日起产品在原包装条件下的储存期为12月；非易燃、易爆品，但有一定的腐蚀性，属于普危品。

## 2-Methylimidazole

### Physical properties

Properties	Data	Chemical structure
CAS NO.	693-98-1	
Appearance	white to off white crystal powder	
Content	≥99.0%	
Melting Point	140~146℃	
Molecule formula and weight	C <sub>4</sub> H <sub>6</sub> N <sub>2</sub> ; 82.10	
Water Content	≤0.5%	
Solubility	Soluble in water, ethanol, acetone, benzene	

### Application

1. Accelerator in powder coatings, CCL and EMC
2. Pharmaceutical intermediates for synthesis

### Instruction

As accelerator in epoxy, additive quantity of 2-Methylimidazole was about 1-3%.

Curing condition: 120 C/30min

Gel-time at 150℃: 40min

Resin: DER-664

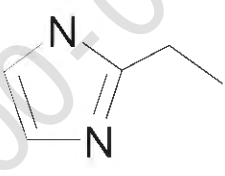
This product has a bit irritant smell. Do not get in eyes, on skin or on clothing. Avoid breathing vapor, mist or spray. Use with adequate ventilation. Gloves and mask are needed.

### Storage

2-Methylimidazole is supplied in 25Kg drum or the user's appointed packages. It should be stored at room temperature in the original sealed container away from excessive heat and humidity. Please avoid acid and oxidant. Under these storage conditions, the shelf life is 1 year.

## 2-乙基咪唑

### 物理性质

性能	数值或状态	结构式
CAS号	1072-62-4	
外观	类白色至微黄色结晶	
含量	≥99.0%	
熔点	77~80℃	
分子式及分子量	C <sub>5</sub> H <sub>8</sub> N <sub>2</sub> ; 82.10	
水分	≤0.5%	

### 建议用途

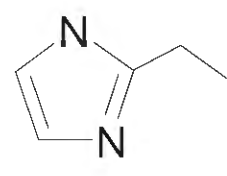
- 1、环氧树脂固化剂
- 2、有机合成中间体

### 包装储存

包装规格为25Kg纸板桶、用户指定包装。本品在干燥、阴凉、密闭条件下储存，一定要避免和酸和氧化剂接触。自生产之日起产品在原包装条件下的储存期为12月；非易燃、易爆品，但有一定的腐蚀性，属于普危化品。

## 2-Ethylimidazole

### Physical properties

Properties	Data	Chemical structure
CAS NO.	1072-62-4	
Appearance	Off-white to yellowish crystal	
Content	≥99.0%	
Melting Point	77.0~80.0 C	
Molecule formula and weight	C <sub>5</sub> H <sub>8</sub> N <sub>2</sub> ; 82.10	
Water Content	≤0.5%	

### Application

1. Curing Agents for the epoxy resin
2. Intermediates for organic synthesis

### Storage

2-Ethylimidazole is supplied in 25Kg drum or the user's appointed packages. It should be stored at room temperature in the original sealed container away from excessive heat and humidity. Please avoid acid and oxidant. Under these storage conditions, the shelf life is 1 year.

## 2-乙基-4-甲基咪唑

### 物理性质

性能	数值或状态	结构式
CAS号	931-36-2	
外观	粘稠液体或固体	
含量	≥96.0%	
分子式及分子量	C <sub>6</sub> H <sub>10</sub> N <sub>2</sub> ; 110.16	
水分	≤0.5%	
溶解性	溶于水、乙醇、丙酮、苯	

### 建议用途

- 1、作为固化剂广泛用于涂料、胶黏剂、灌封料及印刷线路板等
- 2、有机合成中间体

### 使用方法

以2E4MI(3.5wt%)为固化剂的防潮绝缘加工用涂料为例，涂料特性（固化温度：150℃）：

- 1、涂膜硬度：>4H；
- 2、热变形温度：122℃；
- 3、吸水性（沸水 1h）：0.1%；
- 4、体积电阻率：1.8×10<sup>15</sup> Ω·cm；
- 5、介电强度：23 KV/mm

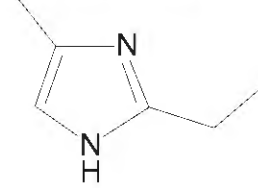
本品有轻微刺激性氨味，要小心处置并避免直接与皮肤和眼睛接触，尽量在通风环境中使用。特别注意口、鼻吸入，应戴专用口罩，手套，防护服操作。

### 包装储存

包装规格为150Kg塑桶、用户指定包装。本品在干燥、阴凉、密闭条件下储存，一定要避免和酸和氧化剂接触。自生产之日起产品在原包装条件下的储存期为12月；非易燃、易爆品。

## 2- Ethyl-4-Methylimidazole

### Physical properties

Properties	Data	Chemical structure
CAS NO.	931-36-2	
Appearance	Yellowish ropy liquid or solid	
Content	≥96.0%	
Molecule formula and weight	C <sub>6</sub> H <sub>10</sub> N <sub>2</sub> ; 110.16	
Water Content	≤0.5%	
Solubility	Soluble in water, ethanol, acetone, benzene	

### Application

1. Curing agent in coatings, adhesives, casting and encapsulating and PCB
2. Intermediates for organic synthesis

### Instruction

For example 2E4MI (3.5phr) in insulating coatings with Curing temperature 150℃,

1. Hardness of coating: >4H
2. HDT: 122 C
3. Water absorption (in boiling water for 1h) :0.1%
4. Volume resistivity: 1.8×10<sup>15</sup> Ω·cm
5. Permittivity: 23KV/mm

This product has a bit irritant smell. Do not get in eyes, on skin or on clothing. Avoid breathing vapor, mist or spray. Use with adequate ventilation. Gloves and mask are needed.

### Storage

2-Ethyl-4-Methylimidazole is supplied in 150Kg plastic drum or the user's appointed packages. It should be stored at room temperature in the original sealed container away from excessive heat and humidity. Please avoid acid and oxidant. Under these storage conditions, the shelf life is 1 year.

## 2-丙基咪唑

### 物理性质

性能	数值或状态	结构式
CAS号	50995-95-4	
外观	类白色至黄色结晶	
含量	≥98.0%	
熔点	56.0~62.0°C	
分子式及分子量	C <sub>6</sub> H <sub>10</sub> N <sub>2</sub> ; 110.16	
水分	≤0.5%	

### 建议用途

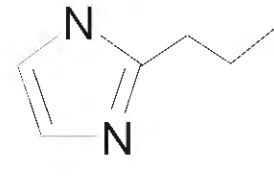
- 1、环氧树脂固化剂
- 2、有机合成中间体

### 包装储存

包装规格为25Kg纸板桶、用户指定包装。本品在干燥、阴凉、密闭条件下储存，一定要避免和酸和氧化剂接触。自生产之日起产品在原包装条件下的储存期为1年；非易燃、易爆品。

## 2- Propylimidazole

### Physical properties

Properties	Data	Chemical structure
CAS NO.	50995-95-4	
Appearance	off-white to yellow crystal	
Content	≥98.0%	
Melting Point	56.0~62.0 C	
Molecule formula and weight	C <sub>6</sub> H <sub>10</sub> N <sub>2</sub> ; 110.16	
Water Content	≤0.5%	

### Application

1. Curing Agents for the epoxy resin
2. Intermediates for organic synthesis

### Storage

2-Propylimidazole is supplied in 25Kg drum or the user's appointed packages. It should be stored at room temperature in the original sealed container away from excessive heat and humidity. Please avoid acid and oxidant. Under these storage conditions, the shelf life is 1 year.

## 2-异丙基咪唑

### 物理性质

性能	数值或状态	结构式
CAS号	36947-68-9	
外观	白色至类白色结晶性粉末	
含量	≥99.0%	
熔点	127.0~132.0°C	
分子式及分子量	C <sub>6</sub> H <sub>10</sub> N <sub>2</sub> ; 110.16	

### 建议用途

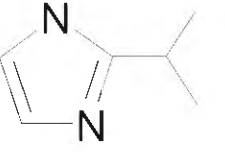
- 1、环氧树脂固化剂
- 2、有机合成中间体

### 包装储存

包装规格为25Kg纸板桶、用户指定包装。本品在干燥、阴凉、密闭条件下储存，一定要避免和酸和氧化剂接触。自生产之日起产品在原包装条件下的储存期为1年；非易燃、易爆品。

## 2- Isopropylimidazole

### Physical properties

Properties	Data	Chemical structure
CAS NO.	36947-68-9	
Appearance	white to off-white crystal powder	
Content	≥98.0%	
Melting Point	56.0~62.0 °C	
Molecule formula and weight	C <sub>6</sub> H <sub>10</sub> N <sub>2</sub> ; 110.16	

### Application

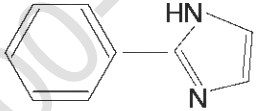
1. Curing Agents for the epoxy resin
2. Intermediates for organic synthesis

### Storage

2-Isopropylimidazole is supplied in 25Kg drum or the user's appointed packages. It should be stored at room temperature in the original sealed container away from excessive heat and humidity. Please avoid acid and oxidant. Under these storage conditions, the shelf life is 1 year.

## 2-苯基咪唑

### 物理性质

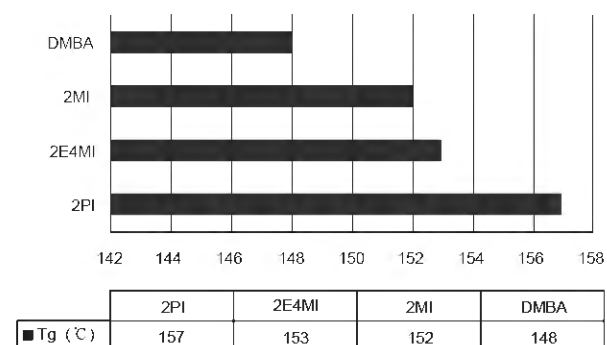
性能	数值或状态	结构式
CAS号:	670-96-2	
外观	白色至微黄色结晶性粉末	
含量	≥99.0%	
熔点	146 ~ 149°C	
分子式及分子量	C <sub>9</sub> H <sub>8</sub> N <sub>2</sub> ; 144.17	
水分	≤0.5%	

### 建议用途

常用于粉末涂料、覆铜板及EMC的固化促进剂;

### 使用方法

1、咪唑类固化促进剂在CCL中的应用



咪唑系列作为环氧树脂的固化促进剂，具有较高的玻璃化转变温度。其中2-苯基咪唑Tg相比最高，且其不易升华，溶解性好，吸湿性小，其半固化片储存期长，可见，2-苯基咪唑具有良好的使用性能。本品有轻微刺激性氨味，要小心处置并避免直接与皮肤和眼睛接触，尽量在通风环境中使用。特别注意口、鼻吸入，应戴专用口罩，手套，防护服操作。

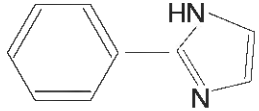
### 包装储存

包装规格为25Kg纸桶、用户指定包装。本品在干燥、阴凉，密闭条件下储存，一定要避免和酸和氧化剂接触。自生产之日起产品在原包装条件下的储存期为12月；非易燃、易爆品。

上海浩登材料股份有限公司(江苏康乐佳材料有限公司)  
工厂地址: 盐城市沿海化工园区中山三路 全国免费咨询电话: 400-011-7633  
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## 2-Phenylimidazole

### Physical properties

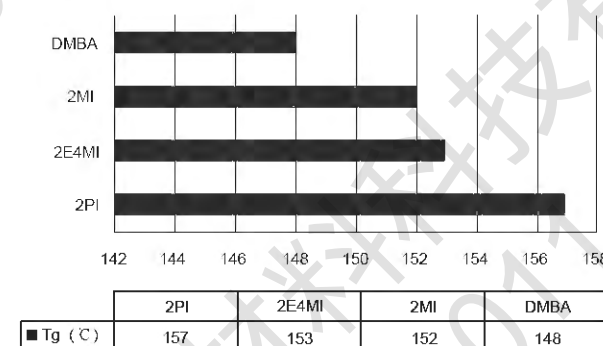
Properties	Data	Chemical structure
Cas number	670-96-2	
Appearance	White to yellowish crystal powder	
Content	≥99.0%	
Melting Point	146 ~ 149 °C	
Molecule formula and weight	C <sub>9</sub> H <sub>8</sub> N <sub>2</sub> ; 144.17	
Water Content	≤0.5%	

### Application

Accelerator in powder coatings, CCL and EMC.

### Instructions

Imidazole derivatives as accelerator in CCL application

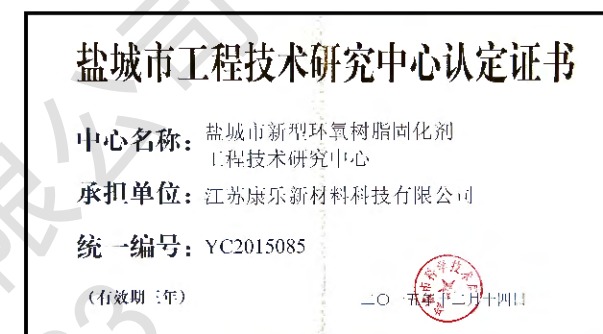


Imidazole derivatives accelerator in epoxy systems have high Tg. The system with 2PI has the highest Tg in above 4 imidazole derivatives. 2PI is not easy to be sublimated, and it has good solubility and less moisture absorption. Prepreg laminating has longer shelf life with 2PI. This product has a bit irritant smell. Do not get in eyes, on skin or on clothing. Avoid breathing vapor, mist or spray. Use with adequate ventilation. Gloves and mask are needed.

### Storage

2-Phenylimidazole is supplied in 25Kg drum or the user's appointed packages. It should be stored at room temperature in the original sealed container away from excessive heat and humidity. Please avoid acid

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# 资质 ENTERPRISE QUALIFICATION

