



## **CORONATE MPAX-75**

### **1. CHEMICAL CHARACTERIZATION**

HDI based modified polyisocyanate, containing isocyanurate.

### **2. FORM**

CORONATE MPAX-75 is approximately 75% of solid content with xylene and PMA(1:1).

### **3. USES**

Hardener for two-component, non-yellowing type of polyurethane paints with excellent weathering ability.

### **4. CHARACTERISTICS**

	CORONATE MPAX-75
Appearance	Pale yellow liquid
NCO Content (%)	16.1 -- 16.7
Solid Content (%)	74 – 76
Viscosity at 25°C (mPa · s)	50 -- 200
Color (APHA No.)	< 40
Monomer HDI (wt%)	< 0.2

### **5. FEATURES**

CORONATE MPAX-75 is a hardener for non-yellowing type of PU paints, with superior performance to biuret or adducts types of hardeners. CORONATE MPAX-75 is widely accepted in the paint industry for various applications, such as motor bike parts, automotive refinishing, wood finishes, etc. This is because of its resistance to high heat, high solubility in solvents and good compatibility with polyols.



## 6. APPLICATIONS

The combination of CORONATE MPAX-75 with acrylic polyols produces non-yellowing type of paint with excellent weathering ability and resistance against ultra-violet rays, by which its original color could be long sustained. This two-component type of paint is applied for automotive refinishes, industrial purposes, etc.

The combination of CORONATE MPAX-75 with alkyd polyols results in two-component type of paint, which is applied for industrial purpose, wood finishes, etc.

The addition of CORONATE MPAX-75 to some nitro-cellulose based or polyurethane-based paints distinctively improve their physical properties, such as chemical resistance to solvents. However, it is necessary to test the compatibility for each combination, and great care should be taken during testing.

### Physical properties of film ( acrylic polyol )

	CORONATE MPAX-75
Dry ability tack free time ( min ) dry through time ( hr )	45 20
Pencil hardness	H
Erichsen value ( mm )	9
Impact resistance ( g × cm )	1000 × 30
Flexibility ( 2mmφ )	Pass
Adhesion ( cross cut )	100 / 100

Polyol : Acrylic A-801 ( DIC ); NCO / OH = 1.0 / 1.0 ( mol )  
Solid Content : 35 % ( D/D solvent )  
Dry Time : 25°C × 7 days  
Film : Clear, film thickness 40μ( dry )



**TOSOH CORPORATION**  
Urethane Division  
Urethane Derivatives Dept.  
3-8-2, Shiba 4-Chome, Minato-Ku,  
Tokyo, Japan 105-8623  
Phone: 81-3-5427-6340 Fax: 81-3-5427-5198  
URL: <http://www.tosoh.com/>

## Product Information

### Non-yellowing Polyisocyanate ( Solvent Dilution Type )

## 7. HANDLING INSTRUCTIONS

### • STORAGE CONDITIONS

CORONATE MPAX-75 should always be kept in a closed container at room temperature for long period of storage. This is to prevent any contact with moisture in the air, since this product is a chemical compound and is highly active with hydroxyl groups. This product should be stored indoors at room temperature (15 - 25°C).

### • AT THE TIME OF USE / RE-PACKING

The reaction of water with the NCO groups in this product causes not only the formation of insoluble products such as urea groups, but also CO<sub>2</sub> gas, which increases the pressure in a closed container, thus resulting in an expansion of the container.

The operation for partial use of this product or emptying of a drum should be carried out with great care in order to prevent any contamination with moisture. The operation to transfer this product into another container should be done under a dry atmosphere, then sealed with dry nitrogen before sealing.

### • DILUTION WITH SOLVENTS

When this product has to be diluted with solvents, the water content of the solvent should be as low as possible and great care should be taken during dilution in order to prevent contamination with water. In addition, this operation should be carried out under a dry atmosphere.

In case of this product needs to be diluted with the desired solvent, the Dilution Stability Test of the final formulation under the application conditions is strongly recommended.

There is a possibility of precipitation, generation of gel-type substance or haze, if the dilution formulation was inappropriate.

Please note that all the dilution work is under customer's responsibility.

## 8. SAFETY PRECAUTIONS

- Care must be taken when handling CORONATE MPAX-75 as it contains active isocyanate and solvent.
- Please refer to MSDS concerning its hazards, proper use, and handling before working with this product.
- This product is flammable. Therefore, the use of fire is prohibited in the work area.
- Appropriate safety measures and protective equipment such as goggles and gloves, should be used when working with this product in order to prevent contact with skin.



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- CORONATE MPAX-75 is mainly applied for spray coatings. A protective mask should be worn in order to prevent inhalation of spraying mist.
- CORONATE MPAX-75 contains below 0.2% of free isocyanate. This value does not increase even if this product is stored over a long period.

### STANDARD PACKING

CORONATE MPAX-75 is available in  
200 kg (200 L iron drum )  
18 kg (18 L tin can )

### IMPORTANT:

All the data described herein are reference values as results of tests conducted by Tosoh Corporation, with considerable caution, based on technical information which is considered to be reliable. Nothing contained herein is a representation, guarantee or warranty as to the use of such information for certain purposes or conflicts with any intellectual property rights in relation to that use.

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For further information, please contact:

#### Head Office - Japan

##### TOSOH Corporation

Urethane Derivatives Dept.  
3-8-2, Shiba, Minato-ku  
Tokyo, Japan 105-8623.  
Phone: 81-3-5427-6340 Fax: 81-3-5427-5378  
E-mail: [info-urethane-sp@tosoh.co.jp](mailto:info-urethane-sp@tosoh.co.jp)

#### TOSOH (SHANGHAI) POLYURETHANE SCIENCE TECHNOLOGY CO., LTD.

Room 1803, Shanghai International Trade Centre,  
2201 Yan-An Road (West),  
Shanghai, P.R. China 200336.  
Phone: 86-21-6278-0703 Fax: 86-21-6278-8188

#### TOSOH ASIA PTE. LTD.

63 Market Street, #10-03 Singapore 048942  
Phone : 65-6225-5212 Fax: 65-6225-3356

#### TOSOH SPECIALTY CHEMICALS USA, Inc.

4080 McGinnes Ferry Road, Suite 1301, Alpharetta, GA 30005 USA  
Phone : 1-866-688-9501 Fax: 1-770-442-2785

#### TOSOH EUROPE B.V.

Crown Building-South, Hullenbergweg 359, 1101 CP Amsterdam Z.O., The Netherlands  
Phone : 31-0-20-565-0010 Fax: 31-0-20-691-5458