

# Material Safety Data Sheet

Date prepared : 2006/04/01

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## 1. Product and company identification

Product Name : **Takeate D-110N**

Company Name: Mitsui Chemicals, Inc.

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Mitsui Chemicals America, Inc.

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## 2. Composition/information on ingredients

NCO-terminated urethane prepolymer approx. 75-80% in ethyl acetate

Ethyl acetate

20-25 %

CAS No. : 141-78-6

Hazard symbol: F, Xi

R-phrases : 11-36-66-67

Xylene diisocyanate

<0.5%

(XDI)

CAS No. : 25854-16-4

Hazard symbol:

R-phrases:

C>20%

T

23-36/37/38-42/43

2%<=C<20%

T

23-42/43

0.5<=C<2%

Xn

20-42/43

2,6-Di-t-butyl-p-cresol 0.2%

CAS No. : 128-37-0

Hazard symbol: None R-phrases: None

## 3. Hazards identification

Highly flammable due to ethyl acetate. Irritating to eyes.

Contains traces of Xylene diisocyanate.

## 4. First aid measures

Eye contact : Immediately flush eyes with plenty of water for at least 15 minutes and get medical attention.

Skin contact : Wash skin with soap and water.

Inhalation : Remove to fresh air and keep at rest. If condition is severe, get medical attention.

Ingestion : Do not induce vomiting. Transfer to medical facility for gastric lavage.

## 5. Fire fighting measures

Extinguishing media : Dry chemical powder, CO<sub>2</sub>, foam. In case of large fires, water spray should be used.  
Protective equipment : Self-contained breathing apparatus and protected clothing.  
Formation gases in fire : Ethyl acetate vapour, and CO, CO<sub>2</sub>, NO<sub>x</sub>, and trace of HCN as thermal decomposition products.

#### 6. Accidental release measures

Put on protective equipment (see section 8), remove sources of fire and ensure adequate ventilation. Prevent from entering drains, scoop up and place in a open top drum. And eliminate all sources by absorption on paper, cloth towels or sand. Finally wash down the spill area by water. Do not seal waste container to prevent from blowing up by evolution of CO<sub>2</sub>.

#### 7. Handling and storage

Storage at ambient temperature in the dark. Keep away from fire at handling and storing places. Local ventilation must be provided at work stations in the room. If ventilation is not good, person must wear respiratory protector. Handle with protective gloves and safety glasses. Avoid contact with moisture by sealing the container by dry air or nitrogen gas, when the container was opened once.

#### 8. Exposure controls/personal protection

Ethyl acetate : ACGIH(1997) TLV-TWA 400 ppm  
                  : OSHA (1997) PEL-TWA 400 ppm  
Xylene diisocyanate : ACGIH(1997) TLV N/E  
(XDI) : OSHA (1997) PEL N/E

Respiratory protection : NIOSH approved one.  
Ventilation : Local ventilation is required.  
Protective gloves : Required (impermeable gloves)  
Eye protection : Required (safety glasses)  
Work/hygienic practices: Safety showers and eye-wash fountains.

#### 9. Physical and chemical properties

Appearance : Pale yellow viscous liquid  
Odour : Fragrant odour  
Specific gravity : 1.13-1.17  
Viscosity : No data  
Boiling point : 77 °C (initial)  
Flash point : -2.5 °C  
Ignition temperature : 427 °C for ethyl acetate  
Explosion limits : 2.2~11.5 % by vol. for ethyl acetate  
Solubility in water : Insoluble

#### 10. Stability and reactivity

Stability : Unstable. Must avoid contact with the moisture in the air.  
Materials to avoid: Amines, alcohols, water.  
Hazardous decomposition products: No decomposition when stored and handled correctly NCO-containing urethane prepolymer reacts with water to generate CO<sub>2</sub>. If this reaction occurs in the closed container, it may burst owing to increase of pressure.  
Hazardous polymerization: May occur. Must avoid contact with amines, alcohols and water.

#### 11. Toxicological information

Eye contact : In the form of liquid, severe irritant and may cause corneal damage.  
Vapours of ethyl acetate and XDI irritate eye-tissue.  
CO-terminated urethane prepolymer dose not vaporise.  
Skin contact: Prolonged or repeated skin contact may cause dermatitis.  
Inhalation : LC50(rat): 16,000 ppm/6H for ethyl acetate.  
LC50(rat): 181.8mg/m<sup>3</sup>/4H for XDI  
Vapours irritate respiratory tract and may cause asthma. Allergy like asthmatic symptom may occur in susceptible subjects.  
NCO-terminated urethane prepolymer dose not vaporise.  
Ingestion : Low order of acute toxicity, but has corrosive action on the esophagus and stomach lining.

#### 12. Ecological information

No information, but estimated to be not appreciably toxic.

#### 13. Disposal considerations

Disposal should be in accordance with Council Directive 91/689/EEC and also with any local, state or national regulations.  
Incineration under approved incinerator is the preferred method.

Do not use any contaminated packagings for other purposes; Dispose them in accordance with any local, state or national regulations.

#### 14. Transport information

This product is dangerous good of IMDG(sea transport) status and ICAO (air transport) status.

UN number	1263
Class	3
PG	II

#### 15. Regulatory information

Labelling in accordance with the EU Directives :

Hazard symbol : F Highly flammable  
 Xi Irritant  
 Risk phrases : R11 Highly flammable.  
 R36 Irritating to eyes  
 R66 Repeated exposure may cause skin dryness or cracking.  
 R67 Vapours may cause drowsiness and dizziness.  
 Safety phrases: S16 Keep away from sources of ignition  
 - No smoking.  
 S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
 S33 Take precautionary measures against static discharges.

U. S. regulations

TSCA Status : All components on TSCA Inventory.  
 OSHA Hazard Communication Rule: Hazardous for Xylene diisocyanate(XDI) and ethyl acetate.

SARA TITLE III:

Section 302 Extremely Hazardous Substance;	N	
Section 304 Hazardous Substance	: Y	
Section 313 Toxic chemicals	: N	
Section 311/312 Hazard Categories	:	
		Ethyl acetate
Acute	: Y	
Chronic	: Y	
Fire	: Y	
Reactive	: N	
Sudden Release;	N	

States regulations

California Proposition 65:N

Any existing national regulations for handling of xylene diisocyanate and ethyl acetate must be observed.

16. Other information

The data here is based on our current knowledge and experience. The data can be revised by new information. The purpose of this Safety Data Sheet is to describe the products from the point of view of safety requirements. Therefore it should not be construed as guaranteeing specific properties.

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