

# Material Safety Data Sheet

Issue Date: Dec 20<sup>th</sup>, 2010

Ochem-02

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## Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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**Product Name:** Polyurethane Resin, PU Resin, Solvent Based Polyurethane Resin, Solvent Based PU Resin, Polyurethane Adhesive, etc.

**Company Name:**

Huzhou Ochem Chemical Co.,Ltd  
No.688 Xifeng Road, Huzhou City, Zhejiang, China 313000

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**MSDS No.:** OCHEM-02

**Effective date:** 2011.1.1

**Emergency Tel:** 0086 532 83889090 /83889191

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## Section 2 - COMPOSITION / INFORMATION ON INGREDIENTS

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NAME	CAS NO.	HAZARDOUS	%
Ethyl acetate	141-78-6	YES	25-50
Polyurethane	9009-54-5	NO	50-75

The exact product composition depends on the source and purity used.

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## Section 3 - HAZARDS IDENTIFICATION

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**Hazard Category:** 3.2 Moderate flammable liquid

**Color:** Light yellow

**Odor:** Solvent

**HMIS**

**Health:** 1 - Slight (Life)

**Flammability:** 3 - Highly flammable

**Reactivity:** 1 - Slight

**Contact:** 2 - Moderate

**Lab Protective Equip:** GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES

**Information pertaining to particular dangers for man and environment**

Irritating to eyes, noses and throat, possible, risk of irreversible effects through inhalation, in contact with skin and if swallowed.

**Inhalation:** Symptoms from excessive inhalation of dust may include coughing and difficult breathing.

**Ingestion:** Large dose may cause abdominal spasms and diarrhea.

**Skin Contact:** May cause skin irritation. Constant exposure to excessive amounts may cause eczema.

**Eye Contact:** May cause redness, pain.

Possible to pollute the ground surface water, earth, atmospheric and drinking water

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## **Section 4 - FIRST AID MEASURES**

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### **General information**

Immediately remove any clothing soiled by the product.

Remove breathing apparatus only after contaminated clothing has been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

**Inhalation:** Supply fresh air. If required, provide artificial respiration.  
Seek immediate medical advice.

**Skin contact:** Immediately wash with water and soap and rinse thoroughly.

**Eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

**Ingestion:** Drink enough warm water. Seek immediate medical advice.

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## **Section 5 - FIRE FIGHTING MEASURES**

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**Flash Point:** 4°C  
**Autoignition temperature:** 426°C  
**Explosive limits – lower:** 2.0%  
**Explosive limits – upper:** 11.5%

**Extinguishing Media:** Water spray, Carbon dioxide, dry chemical, extinguishing powder or sandy soil.

**Special firefighting procedures:** Wear self-contained breathing apparatus and full protective clothing. Keep unnecessary person away.

**Unusual fire or explosive hazards:** Vapors may accumulate in low or confined area, travel considerable distance to source of ignition, and flash back

**Hazardous combustion products:** Carbon monoxide and carbon dioxide.

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## **Section 6 - ACCIDENTAL RELEASE MEASURES**

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**Person safety precautions:** Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation  
Keep away from ignition sources

**Environmental precautions:** Do not allow material to be released to the environment without proper governmental permits.

**Clean-up methods:** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).  
Or wash with enough water to dilute, Then dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.  
Keep away from ignition sources.

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## **Section 7 - HANDLING AND STORAGE**

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### **Handling**

Operator must be well trained professionally, must strictly follow the operating rules

**Safe handling:** Ensure no smoking, kindling approaching the workplace  
Ensure good ventilation at the workplace  
Open and handle container with care  
Grounding the machine to prevent the accumulation of static electric charges

**Storage:** Protect against physical damage.  
keep them far away ignition sources, store temperature less than 30°C  
Do not store together with oxidizing and acidic materials

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## **Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION**

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**Airborne Exposure Limits:** (the main solvent of Ethyl Acetate)  
MAC permissible Exposure limits: 300mg/m<sup>3</sup>

**Engineering controls:** Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits

**Respiratory protection:** Use a half-face piece particulate respirator or a full-face piece positive-pressure, air-supplied respirator if there is potential to exceed exposure limits.

**Skin protection:** Wear rubber protective gloves and antistatic lab coat, apron or coveralls.

**Eye/face protection:** Use chemical safety goggles or glasses with side shields, wear face shield as necessary when spraying

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## **Section 9 - PHYSICAL AND CHEMICAL PROPERTIES**

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**Physical state:** Liquid  
**Color :** light yellow or light brown  
**Odor:** Solvent  
**PH:** 5-6 for the solvent-ethyl acetate  
**Vapor pressure:** 101 mbar for solvent-ethyl acetate

<b>Density to water:</b>	0.90 for the solvent-ethyl acetate
<b>Density to air:</b>	1.59 for the solvent-ethyl acetate
<b>Melting Point:</b>	-83.6°C for the solvent-ethyl acetate
<b>Boiling point:</b>	77.2°C for the solvent-ethyl acetate
<b>Flash point:</b>	4°C for the solvent-ethyl acetate
<b>Explosive limits – lower:</b>	2.0%
<b>Explosive limits – upper:</b>	11.5%
<b>Autoignition point:</b>	426°C for the main solvent-ethyl acetate
<b>Solubility:</b>	soluble to acetone, toluene, etc.

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## **Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION**

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<b>Stability:</b>	stable under ordinary conditions of use and storage
<b>Materials to be avoided:</b>	strong oxidizer
<b>Hazardous reaction:</b>	will no occur
<b>Products of decomposition:</b>	Carbon monoxide and carbon dioxide

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## **Section 11 - TOXICOLOGICAL INFORMATION**

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### **Grade of NO-TOXIC**

<b>Chronic toxicity:</b>	ORL-RAT LD50: >5620mg/kg ORL-RBT LD50: >4940mg/kg IHL-RAT LC50: >5760ppm/8h
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## **Section 12 - ECOLOGICAL INFORMATION**

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Environmental Fate: No information found.

Environmental Toxicity: No information found.

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## **Section 13 - DISPOSAL CONSIDERATIONS**

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<b>Recommendation</b>	Consult state, local or national regulations to ensure proper disposal. Disposal must be made according to official regulations. Incineration is the recommended method for disposal.
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## **Section 14 - TRANSPORTATION INFORMATION**

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<b>DOT regulations:</b>	
<b>Hazard class:</b>	3
<b>Identification number:</b>	UN 1133
<b>Packing group:</b>	II
<b>Packing method:</b>	Steel can
<b>ADR/RID class:</b>	Flammable for solvent

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**Section 15 - REGULATORY INFORMATION**

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N/A

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**Section 16 - OTHER INFORMATION**

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References:

Dangerous Chemical regulation and standard operation manual made by CQC

Canadian Centre for Occupational Health and safety, CHEMINFO Database

GB16483-2000 Chemical MSDS making regulation

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**DISCLAIMER:**

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**Department issuing MSDS:** Health, Safety and Environmental Department.

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