



Revision Date 20-Apr-2005

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product code** 81996  
**Product name** Formula 77 Vynalok  
**Recommended Use** Adhesive  
**Supplier** Lawson Products, Inc.  
 1666 East Touhy Avenue  
 Des Plaines, IL 60018  
 (847)-827-9666

**Emergency telephone number** (888) 426-4851

## 2. HAZARDS IDENTIFICATION

### Emergency Overview

Flammable. Vapors may be irritating to eyes, nose, throat, and lungs.

**Color** Clear

**Odor** Ether-like

**Form** Liquid

**Aggravated Medical Conditions** No information available

**Principal Routes of Exposure** Eyes. Skin. Inhalation. Ingestion.

### Potential health effects

**Eyes** Irritation. Prolonged or repeated exposure may cause . Eye damage.

**Skin** Dermatitis. Skin Irritation.

**Inhalation** Headaches. Dizziness. Central nervous system effects.

**Ingestion** May be harmful if swallowed.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Tetrahydrofuran	109-99-9	40-70
Acetone	67-64-1	3-7
Cyclohexanone	108-94-1	3-7
Synthetic Resins	Mixture	10-30

## 4. FIRST AID MEASURES

<b>Eye contact</b>	Rinse thoroughly with plenty of water, also under the eyelids. Seek medical attention if irritation persists.
<b>Skin contact</b>	Wash area thoroughly with soap and water. Use emollient skin creams and contact physician if symptoms persist.
<b>Ingestion</b>	Give large quantities of water and induce vomiting. Seek medical attention.
<b>Inhalation</b>	Remove to fresh air. If breathing is difficult, give oxygen. Contact physician if breathing difficulty develops.

## 5. FIRE FIGHTING MEASURES

<b>Flash point °C</b>	-16
<b>Flash point °F</b>	2
<b>Method</b>	Tag closed cup
<b>Autoignition temperature °C</b>	321
<b>Autoignition temperature °F</b>	610
<b>Flammability Limits (% in Air)</b>	
<b>Upper</b>	11.8
<b>Lower</b>	2

### Suitable extinguishing media

Foam. Dry chemical. Carbon dioxide (CO<sub>2</sub>).

### Extinguishing media which must NOT be used for safety reasons

No information available.

### Special Fire-Fighting Procedures

Firefighters should wear NIOSH/MSHA approved (or equivalent) self-contained pressure-demand breathing apparatus and full protective clothing.

### Sensitivity to shock

No information available.

### Sensitivity to static discharge

No information available.

## 6. ACCIDENTAL RELEASE MEASURES

### Methods for cleaning up

Eliminate all sources of ignition. Soak up excess with absorbent material. Collect and contain for disposal. After cleaning, flush away traces with water.

## 7. HANDLING AND STORAGE

### Handling

Check to make sure that all equipment is properly grounded and installed to satisfy electrical classification requirements.

### Storage

Keep tightly closed in a dry and cool place. Keep away from open flames, hot surfaces and sources of ignition.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure limits

Chemical Name	OSHA PEL (TWA)	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Tetrahydrofuran	200 ppm 590 mg/m <sup>3</sup>	-	50 ppm	100 ppm
Synthetic Resins	-	-	-	-
Cyclohexanone	200 mg/m <sup>3</sup> 50 ppm	-	20 ppm	50 ppm
Acetone	1000 ppm 2400 mg/m <sup>3</sup>	-	500 ppm	750 ppm

### Ventilation and Environmental Controls

Face velocity of 60 fpm (minimum) if used in confined spaces.

### Hygiene measures

General industrial hygiene practice.

### Personal protective equipment

#### Respiratory protection

Use NIOSH approved respirator if TLV limit is exceeded.

#### Hand protection

Chemical resistant gloves.

#### Eye protection

Use safety eyewear designed to protect against splash of liquids.

#### Skin and body protection

No information available

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Form</b>	Liquid	<b>Color</b>	Clear
<b>Odor</b>	Ether-like	<b>Odor Threshold</b>	No information available
<b>pH</b>	No data available	<b>Specific Gravity</b>	0.96
<b>Vapor pressure</b>	160	<b>Vapor density</b>	No data available
<b>Evaporation Rate</b>	No data available	<b>VOC Content</b>	70 %
<b>Water solubility</b>	No data available	<b>Partition Coefficient (n-octanol/water)</b>	No data available
<b>Boiling point/range °F</b>	150	<b>Boiling point/range °C</b>	65
<b>Melting point/range °F</b>	No data available	<b>Melting point/range °C</b>	No data available
<b>Flash point °F</b>	2	<b>Flash point °C</b>	-16

## 10. STABILITY AND REACTIVITY

### Stability

Stable.

**Conditions to avoid**

Heat, flames and sparks.

**Materials to avoid**

Strong oxidizing agents.

**Hazardous decomposition products**

No information available

**Polymerization**

Will not occur.

**Synergistic Products**

No information available.

**11. TOXICOLOGICAL INFORMATION****Component Information**

Chemical Name	LD50 (oral, rat)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat)
<i>Tetrahydrofuran</i> 109-99-9	1650 mg/kg	-	-
<i>Synthetic Resins Mixture</i>	-	-	-
<i>Cyclohexanone</i> 108-94-1	1620 µL/kg	1 mL/kg	8000 ppm
<i>Acetone</i> 67-64-1	5800 mg/kg	-	44 g/m <sup>3</sup>

**Potential health effects****Sensitization**

No information available.

**Mutagenic effects**

No information available.

**Reproductive toxicity**

No information available

**Target Organ Effects**

No information available

**Carcinogenic effects**

See table below

**Chronic toxicity**

No information available.

**Teratogenic effects**

No information available

Chemical Name	ACGIH OEL - Carcinogens	IARC	NTP - Known Carcinogens	NTP - Suspected Human Carcinogens	OSHA RTK Carcinogens
Tetrahydrofuran	A3 - Confirmed animal carcinogen with unknown relevance to humans	Not Listed	Not Listed	Not Listed	Not Listed
Synthetic Resins	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Cyclohexanone	A3 - Confirmed animal carcinogen with unknown relevance to humans	Not Listed	Not Listed	Not Listed	Not Listed
Acetone	A4 - Not Classifiable as a Human Carcinogen	Not Listed	Not Listed	Not Listed	Not Listed

## 12. ECOLOGICAL INFORMATION

### Aquatic toxicity

Cyclohexanone

#### **Microtox Data**

*Photobacterium phosphoreum* EC50=21.3 mg/L (10 min)

*Photobacterium phosphoreum* EC50=25 mg/L (5 min)

#### **Water Flea Data**

water flea EC50=820 mg/L (48 h)

Acetone

#### **Water Flea Data**

water flea LC50=0.0039 mg/L (48 h)

water flea EC50=12700 mg/L (48 h)

## 13. DISPOSAL CONSIDERATIONS

### **Waste from residues / unused products**

Dispose in accordance with federal, state, and local regulations.

## 14. TRANSPORT INFORMATION

### DOT

Consumer commodity (Tetrahydrofuran),ORM-D,,RQ

**TDG**

ADHESIVES(Tetrahydrofuran,Acetone), Class 3,UN1133,PG II

**IMDG/IMO**

Adhesives(Tetrahydrofuran,Acetone),UN1133,PG II

**IATA**Adhesives(Tetrahydrofuran,Acetone),UN1133,PG II  
Hazard Class 3**MEX**

UN1133 Adhesivos(Tetrahydrofuran,Acetone),3,

**15. REGULATORY INFORMATION****State Regulations**

Chemical Name	New Jersey - RTK	Pennsylvania - RTK	California Prop. 65
Tetrahydrofuran	Listed	Listed	Not Listed
Synthetic Resins	Not Listed	Not Listed	Not Listed
Cyclohexanone	Listed	Listed	Not Listed
Acetone	Listed	Listed	Not Listed

**International Inventories**

Chemical Name	EINECS	DSL	NDSL	TSCA
Tetrahydrofuran	X	X	-	X
Synthetic Resins	-	-	-	-
Cyclohexanone	X	X	-	X
Acetone	X	X	-	X

**CPRC**

This product has been classified in accordance with the hazard criteria of the Controlled Product Regulations and the MSDS contains all of the information required by the Controlled Product Regulations

**16. OTHER INFORMATION**

<b>NFPA</b>		<b>HMIS</b>	
<b>Health</b>	2	<b>Health</b>	2
<b>Flammability</b>	3	<b>Flammability</b>	3
<b>Reactivity</b>	0	<b>Physical Hazard</b>	0

**Reason for revision** No information available.

**Prepared By** T. Heidorn, MSDS Project Lead

The information accumulated herein is believed to be accurate, but is not warranted to be, whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.