



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

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

5. FIRE FIGHTING MEASURES

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

Suitable extinguishing media

Foam. Dry chemical. Carbon dioxide (CO₂).

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 ³	-	50 ppm	100 ppm
Synthetic Resins	-	-	-	-
Cyclohexanone	200 mg/m ³ 50 ppm	-	20 ppm	50 ppm
Acetone	1000 ppm 2400 mg/m ³	-	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

Form	Liquid	Color	Clear
Odor	Ether-like	Odor Threshold	No information available
pH	No data available	Specific Gravity	0.96
Vapor pressure	160	Vapor density	No data available
Evaporation Rate	No data available	VOC Content	70 %
Water solubility	No data available	Partition Coefficient (n-octanol/water)	No data available
Boiling point/range °F	150	Boiling point/range °C	65
Melting point/range °F	No data available	Melting point/range °C	No data available
Flash point °F	2	Flash point °C	-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 ³

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

IATAAdhesives(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

NFPA		HMIS	
Health	2	Health	2
Flammability	3	Flammability	3
Reactivity	0	Physical Hazard	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.