



# MATERIAL SAFETY DATA SHEET

## CYBERSOLV® 141-R

### 1. COMPANY NAME AND ADDRESS:

[www.kyzen.com](http://www.kyzen.com)

Kyzen Corporation  
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Nashville, TN 37211  
PHONE: 615-831-0888

**(24 HOUR) EMERGENCY PHONE:**  
**CHEMTREC**  
**800-424-9300**

Effective: August 9, 2006  
Supersedes: April 21, 2006

### 2. INGREDIENTS:

29CFR 1910.1200:

<u>Hazardous Components</u>	<u>CAS Number</u>	<u>Approximate %</u>
Trans-1,2-Dichloroethylene	156-60-5	75-100
Pentane, 1,1,1,2,2,3,4,5,5,5-decafluoro	138495-42-8	0-25

See Section 8 for exposure limits (if applicable).

### 3. HAZARDS IDENTIFICATION:

#### EMERGENCY OVERVIEW

Clear, colorless liquid. Characteristic odor. May irritate eyes, skin and mucous membranes.

Eyes: May be mildly irritating to eyes.  
Skin: Prolonged or repeated contact may cause skin irritation and dermatitis.  
Inhalation: Vapors may be irritating to mucous membranes. Over exposure may result in dizziness, headache and drowsiness.  
Ingestion: May be harmful if ingested. May cause nausea and vomiting.

### 4. FIRST AID:

Eyes: Immediately flush eyes with plenty of water for 15 minutes. If irritation develops, get medical attention.  
Skin: Remove contaminated clothing and shoes. Wash affected area with plenty of soap and water. Get medical attention. Wash contaminated items before reuse.  
Inhalation: Remove victim from area of exposure. If unconscious, give oxygen. Give artificial respiration if not breathing. Get medical help.  
Ingestion: If conscious, give person 1 to 2 glasses of water. Get medical help.

Medical Conditions Aggravated: Conditions aggravated may include disorders of the skin, respiratory and nervous systems.

### 5. FIRE AND EXPLOSION HAZARD DATA:

Flash Point: None to boiling. (Tag CC)  
Flammability Limits in Air: Not determined.  
Extinguisher Media: Conventional methods including dry chemical, carbon dioxide, foam and water fog.  
Unusual Explosion Hazards: Drums may rupture under fire conditions.  
Special Fire Fighting Procedures: Water should be used to keep fire-exposed containers cool. Prevent runoff from fire control from entering streams, sewers or drinking water supply. This liquid is volatile and gives off invisible vapors. The liquid or vapor may settle in low areas posing a hazard of asphyxia if they are trapped in enclosed or low places.  
Combustion Products: Oxides of carbon and hydrogen fluoride.

**6. ACCIDENTAL RELEASE MEASURES:**

Small Spill: Make sure all heat and flame sources have been removed. Use proper personal protective equipment. Dike area to contain spill. Pick up spill on absorbent, non-combustible material. Place into a chemical waste container. Don't flush into sewers or natural waterways. Wipe area with water to remove last traces.

Large Spill: Contain material as described above. If necessary, call the local fire or police department for immediate emergency assistance. Use water spray to reduce vapors or divert vapor cloud drift.

**7. HANDLING AND STORAGE:**

Handling: Do not drink, smoke or eat in handling area. Wear proper protective equipment. Follow handling procedures.

Storage: Keep container tightly closed. Store in cool (60-80°F) ventilated area. Keep separate from strong acids, bases, oxidizers and away from heat, sparks and open flame.

**8. EXPOSURE CONTROLS/ PERSONAL PROTECTION:**

Exposure Guidelines: 29CFR1910.1200:

<u>OSHA Hazardous Component</u>	<u>Exposure Limits</u>	
	<u>OSHA PEL, ppm</u>	<u>ACGIH TLV, ppm TWA</u>
Trans-1,2-Dichloroethylene	None established	200
Pentane, 1,1,1,2,2,3,4,5,5,5-decafluoro	None established	None established

Respiratory Protection: Not usually needed. In confined or enclosed spaces use NIOSH approved organic vapor air purifying respirator.

Ventilation: Use in well-ventillated area with local exhaust.

Protective Gloves: Impervious chemical, etc.

Eye Protection: Glasses, goggles or face shield, etc.

Other Protective Equipment: Eye fountain, safety shower.

Work Hygiene Practices: Do not eat, drink, or smoke when handling this material.

**9. PHYSICAL AND CHEMICAL PROPERTIES:**

Boiling Point	47°C	Specific Gravity	1.264
Vapor Pressure (Calculated)	316.7 mmHg at 20°C approx.	pH:	Not applicable
Volatile Organic Compound (VOC):		Appearance	Clear colorless liquid
EPA Method 24:	1175.1 g/L	Odor	Ethereal odor
Vapor Pressure, VOC Components:	316.7 mmHg at 20°C	Solubility in Water	Not miscible

**10. STABILITY AND REACTIVITY:**

Stability: Stable

Hazardous Polymerization: Will not occur

Incompatibility: Strong oxidizers, strong bases and mineral acids. Prolonged contact with finely divided aluminum, magnesium and zinc is not advised. Avoid contact with open flame, electric arcs or any other hot surfaces that could cause thermal decomposition.

Hazardous Decomposition: Oxides of carbon, hydrogen fluoride.

**11. TOXICOLOGICAL INFORMATION:**

Acute Toxicology: None known for product as a whole.

Chronic Toxicology: None known for product as a whole.

Carcinogenicity: None known for product as a whole.

**12. ECOLOGICAL INFORMATION:**

Environmental Fate and Effects:

Ecotoxicity: Not established.

Mobility: Not established.

Persistence and Degradability: Not established.

Bioaccumulative Potential: Not established.

