Item Name: DRY CLEANING SOLVENT
Company's Name: VAN WATERS AND ROGERS INC DIV OF UNIVAR CORP
Company's Street: 9733 COACH ROAD
Company's P. O. Box:
Company's City: RICHMOND
Company's State: VA
Company's Country: US
Company's Zip Code: 23237
Company's Emerg Ph #: 804-743-0540
Company's Info Ph #: 804-743-0540
Distributor/Vendor # 1:
Distributor/Vendor # 1 Cage:
Distributor/Vendor # 2:
Distributor/Vendor # 2 Cage:
Distributor/Vendor # 3:
Distributor/Vendor # 3 Cage:
Distributor/Vendor # 4:
Distributor/Vendor # 4 Cage:
Safety Data Action Code: C
Safety Focal Point: D
Record No. For Safety Entry: 001
Tot Safety Entries This Stk#: 014
Status: SE
Date MSDS Prepared: 06SEP90
Safety Data Review Date: 18MAR98 *
Supply Item Manager: CX *
MSDS Preparer's Name:
Preparer's Company:
Preparer's St Or P. O. Box:
Preparer's City:
Preparer's State:
Preparer's Zip Code:
**Ingredients/Identity Information**

<table>
<thead>
<tr>
<th>Proprietary</th>
<th>Ingredient</th>
<th>Percent</th>
<th>Ingredient Action Code</th>
<th>Ingredient Focal Point</th>
<th>NIOSH (RTECS) Number</th>
<th>CAS Number</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>Other Recommended Limit</th>
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</thead>
<tbody>
<tr>
<td>NO</td>
<td>PERCHLOROETHYLENE (TETRACHLOROETHYLENE) (SARA III)</td>
<td>99.5</td>
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<td>D</td>
<td>KX3850000</td>
<td>127-18-4</td>
<td>100 PPM</td>
<td>25PPM/100,A3 STEL;94</td>
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<td>NO</td>
<td>CARBON TETRACHLORIDE (SARA III)</td>
<td>&lt; 2 PPM</td>
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<td>D</td>
<td>FG4900000</td>
<td>56-23-5</td>
<td>10 PPM</td>
<td>S,5PPM/10 STEL,A3 93</td>
<td>NONE SPECIFIED</td>
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<tr>
<td>NO</td>
<td>EPICHLOROHYDRIN (SARA III)</td>
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</tbody>
</table>
Percent: 0.1
Ingredient Action Code: D
NIOSH (RTECS) Number: TX4900000
CAS Number: 106-89-8
OSHA PEL: S, 5 PPM
ACGIH TLV: S, 2 PPM; 9293
Other Recommended Limit: NONE SPECIFIED

Proprietary: NO
Ingredient: OXIRANE, ((1,1-DIMETHYLETHOXY)METHYL)-
Ingredient Sequence Number: 04
Percent: 0.5
Ingredient Action Code: D
NIOSH (RTECS) Number: RR0475000
CAS Number: 7665-72-7
OSHA PEL: NOT ESTABLISHED
ACGIH TLV: NOT ESTABLISHED

Physical/Chemical Characteristics

Appearance And Odor: CLEAR, COLORLESS LIQUID, CHARACTERISTIC "DRY CLEANING"
Boiling Point: 250F, 121C
Melting Point: -10F, -23C
Vapor Pressure (MM Hg/70 F): 13
Vapor Density (Air=1): 5.8 AIR=1
Specific Gravity: 1.620
Decomposition Temperature: UNKNOWN
Evaporation Rate And Ref: <1 (N-BUTYL ACETATE=1)
Solubility In Water: <0.01
Percent Volatiles By Volume: 100
Viscosity:
pH: N/R
Radioactivity:
Form (Radioactive Matl): N/P
Magnetism (Milligauss): N/P
Corrosion Rate (IPY): UNKNOWN
Autoignition Temperature: N/R
Fire and Explosion Hazard Data

Flash Point: N/R
Flash Point Method: N/P
Lower Explosive Limit: N/R
Upper Explosive Limit: N/R
Extinguishing Media: USE WATER FOG, CARBON DIOXIDE, FOAM, OR DRY CHEMICAL AS APPROPRIATE FOR SURROUNDINGS.
Special Fire Fighting Proc: FIRE FIGHTERS SHOULD USE NIOSH APPROVED SCBA & FULL PROTECTIVE EQUIPMENT WHEN FIGHTING CHEMICAL FIRE. USE WATER SPRAY TO COOL NEARBY CONTAINERS EXPOSED TO FIRE.
Unusual Fire And Expl Hazards: FIRE OR EXCESSIVE HEAT MAY CAUSE PRODUCT ION OF HAZARDOUS DECOMPOSITION PRODUCTS INCLUDING PHOSGENE AND HYDROGEN CHLORIDE.

Reactivity Data

Stability: YES
Cond To Avoid (Stability): HIGH TEMPERATURES, SPARKS, AND OPEN FLAMES. HIGH PRESSURE ALUMINUM SYSTEMS.
Materials To Avoid: STRONG OXIDIZING AGENTS. ACTIVE METALS (SODIUM, POTASSIUM, LITHIUM, ZINC, ALUMINUM, BARIUM ETC.)
Hazardous Decomp Products: WHEN INVOLVED IN FIRE, TETRACHLOROETHANE EM ITS HIGHLY TOXIC AND IRRITATING HYDROGEN CHLORIDE AND PHOSGENE FUMES.
Hazardous Poly Occur: NO
Conditions To Avoid (Poly): NOT APPLICABLE

Health Hazard Data

LD50-LC50 Mixture: ORAL LD50 (RAT) = 5000 MG/KG
Route Of Entry - Inhalation: YES
Route Of Entry - Skin: YES
Route Of Entry - Ingestion: YES
Health Haz Acute And Chronic: ACUTE: MAY CAUSE EYE & SKIN IRRITATION.
MAY CAUSE RESPIRATORY TRACT IRRITATION. CENTRAL NERVOUS SYSTEM DEPRESSANT. LOSS OF CONSCIOUSNESS AND EVEN DEATH CAN OCCUR AT HIGH LEVELS OF EXPOSURE. CHRONIC: LIVER AND KIDNEY DAMAGE. ASPIRATION HAZARD DO NOT INDUCE VOMITING.

PROBABLE CANCER HAZARD.
Carcinogenicity - NTP: YES
Carcinogenicity - IARC: YES
Carcinogenicity - OSHA: NO

Explanation Carcinogenicity: LISTED AS A CARCINOGEN BY NTP AND IARC.

Signs/Symptoms Of Overexp: INCOORDINATION AND IMPAIRED JUDGMENT MAY OCCUR AT VAPOR EXPOSURES FROM 200 PPM. DIZZINESS, DROWSINESS, AND GENERAL ANESTHETIC EFFECTS MAY OCCUR IN RANGES OF 1000 PPM AND HIGHER.

Med Cond Aggravated By Exp: EYE/SKIN/RESPIRATORY CONDITIONS MAY BE AGGRAVATED BY EXPOSURE. MAY CAUSE CANCER.

Emergency/First Aid Proc: INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE CPR. IF BREATHING IS DIFFICULT, GIVE OXYGEN. CALL A PHYSICIAN. EYE: FLUSH IMMEDIATELY WITH LARGE AMOUNTS OF WATER FOR 15 MINUTES. GET MEDICAL ATTENTION. SKIN: REMOVE CONTAMINATED CLOTHING. WASH WITH SOAP AND WATER PROMPTLY. INGESTION: DO NOT INDUCE VOMITING. GIVE MILK OR USP MINERAL OIL. GET IMMEDIATE MEDICAL ATTENTION.

Precautions for Safe Handling and Use

Steps If Matl Released/Spill: SMALL SPILL: WIPE UP WITH RAGS OR TOWELS. LARGE SPILLS: WEAR NIOSH APPROVED RESPIRATOR. VENTILATE AREA. DIKE TO RETAIN FLUID. PUMP UP FREE LIQUID. RESIDUE WILL EVAPORATE QUICKLY. DO NOT FLUSH TO SEWER OR WATERWAY.

Neutralizing Agent: NONE

Waste Disposal Method: CLEAN-UP DEBRIS WILL LIKELY BE A LAND-BANNED HAZARDOUS WASTE. (CODE=F002) DISPOSAL WILL BE IN ACCORD WITH APPLICABLE REGULATIONS.

Precautions-Handling/Storing: STORE IN A COOL, DRY, WELL-VENTILATED LOCATION, AWAY FROM ANY AREA WHERE THE FIRE HAZARD MAY BE ACUTE. KEEP CONTAINERS CLOSED WHEN NOT IN USE.

Other Precautions: DO NOT USE WITH PRESSURIZED ALUMINUM SYSTEMS. READ AND FOLLOW DIRECTIONS ON LABEL. DO NOT REUSE CONTAINERS. AVOID WELDING, BRAZING, DRILLING, SOLDERING AND OTHER HIGH TEMPERATURE AND SPARK
CONDITIONS AROUND THIS PRODUCT.

Control Measures

Respiratory Protection: IN HIGH VAPOR AREA, USE NIOSH/MSHA APPROVED RESPIRATOR WITH ORGANIC VAPOR CARTRIDGE. USE SELF-CONTAINED BREATHING APPARATUS IF ALLOWABLE VAPOR LEVELS ARE EXCEEDED.
Ventilation: LOCAL EXHAUST RECOMMENDED TO CONTROL VAPORS BELOW 50% OF TLV.

Protective Gloves: NEOPRENE, PVA GLOVES RECOMMENDED.
Eye Protection: USE CHEMICAL SAFETY GOGGLES.
Other Protective Equipment: APRON AND WORK CLOTHING TO MINIMIZE EXPOSURE.
EYE WASH STATION & SAFETY SHOWER RECOMMENDED.
Work Hygienic Practices: WASH THOROUGHLY AFTER USE AND BEFORE EATING, SMOKING OR USING TOILET FACILITIES. DO NOT BREATH VAPORS OR MIST.
Suppl. Safety & Health Data: TARGET ORGANS ARE SKIN, CNS, CVS, AND EYES.
STORE IN COOL, DRY PLACE.

Transportation Data

Transportation Action Code: C
Transportation Focal Point: D
Trans Data Review Date: 98077
DOT PSN Code: NYB
DOT Symbol:
DOT Proper Shipping Name: TETRACHLOROETHYLENE
DOT Class: 6.1
DOT ID Number: UN1897
DOT Pack Group: III
DOT Label: KEEP AWAY FROM FOOD
DOT/DoD Exemption Number:
IMO PSN Code: OJV
IMO Proper Shipping Name: TETRACHLOROETHYLENE
IMO Regulations Page Number: 6264
IMO UN Number: 1897
IMO UN Class: 6.1
IMO Subsidiary Risk Label: -
IATA PSN Code: XOW
IATA UN ID Number: 1897
IATA Proper Shipping Name: TETRACHLOROETHYLENE
IATA UN Class: 6.1
IATA Subsidiary Risk Class:
IATA Label: TOXIC
AFI PSN Code: XOW
AFI Symbols:
AFI Prop. Shipping Name: TETRACHLOROETHYLENE
AFI Class: 6.1
AFI ID Number: UN1897
AFI Pack Group: III
AFI Label:
AFI Special Prov: N36
AFI Basic Pac Ref: 10-10
MMAC Code:
N.O.S. Shipping Name:
Additional Trans Data:

 reporters for NIIN: 002709982
Tot Disp Entries Per NSN:
Landfill Ban Item:
Disposal Supplemental Data:
1st EPA Haz Wst Code New:
1st EPA Haz Wst Name New:
1st EPA Haz Wst Char New:
1st EPA Acute Hazard New:
2nd EPA Haz Wst Code New:
2nd EPA Haz Wst Name New:
2nd EPA Haz Wst Char New:
2nd EPA Acute Hazard New:
3rd EPA Haz Wst Code New:
3rd EPA Haz Wst Name New:
3rd EPA Haz Wst Char New:
3rd EPA Acute Hazard New:

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2nd EPA Haz Wst Name New:
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3rd EPA Haz Wst Char New:
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2nd EPA Haz Wst Char New:
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1st EPA Haz Wst Name New:
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1st EPA Acute Hazard New:
2nd EPA Haz Wst Code New:
2nd EPA Haz Wst Name New:
2nd EPA Haz Wst Char New:
2nd EPA Acute Hazard New:
3rd EPA Haz Wst Code New:
3rd EPA Haz Wst Name New:
3rd EPA Haz Wst Char New:
3rd EPA Acute Hazard New:
Label Required: YES
Technical Review Date: 29MAY91
Label Date: 
MFR Label Number: N/R
Label Status: F
Common Name: PERCHLOROETHYLENE
Chronic Hazard: YES
Signal Word: WARNING!
Acute Health Hazard-None:
Acute Health Hazard-Slight:
Acute Health Hazard-Moderate: X
Acute Health Hazard-Severe:
Contact Hazard-None:
Contact Hazard-Slight: X
Contact Hazard-Moderate:
Contact Hazard-Severe:
Fire Hazard-None:
Fire Hazard-Slight: X
Fire Hazard-Moderate:
Fire Hazard-Severe:
Reactivity Hazard-None: X
Reactivity Hazard-Slight:
Reactivity Hazard-Moderate:
Reactivity Hazard-Severe:
Special Hazard Precautions: ACUTE: MAY CAUSE EYE & SKIN IRRITATION. MAY CAUSE RESPIRATORY TRACT IRRITATION. CENTRAL NERVOUS SYSTEM DEPRESSANT. LOSS OF CONSCIOUSNESS AND EVEN DEATH CAN OCCUR AT HIGH LEVELS OF EXPOSURE. CHRONIC: LIVER AND KIDNEY DAMAGE. ASPIRATION HAZARD DO NOT INDUCE VOMITING. PROBABLE CANCER HAZARD. SMALL SPILL: WIPE UP WITH RAGS OR TOWELS. LARGE SPILLS: WEAR NIOSH APPROVED RESPIRATOR. VENTILATE AREA. DIKE TO RETAIN FLUID. PUMP UP FREE LIQUID. RESIDUE WILL EVAPORATE QUICKLY. DO NOT FLUSH TO SEWER OR WATERWAY. STORE IN A COOL, DRY, WELL-VENTILATED LOCATION, AWAY FROM ANY AREA WHERE THE FIRE HAZARD MAY BE ACUTE. KEEP CONTAINERS CLOSED WHEN NOT IN USE.
Protect Eye: Y

Report for NIIN: 002709982

Protect Skin: Y
Protect Respiratory: Y