

VAN WATERS AND ROGERS INC -- SOLVENT 111, GENERAL PURPOSE GRADE, INDUSTRIAL GRADE -- 6810-00-664-0387

===== Product Identification =====

Product ID:SOLVENT 111, GENERAL PURPOSE GRADE, INDUSTRIAL GRADE

MSDS Date:03/01/1994

FSC:6810

NIIN:00-664-0387

Status Code:A

MSDS Number: CJVDS

=== Responsible Party ===

Company Name:VAN WATERS AND ROGERS INC

Address:6100 CARILLON POINT

City:KIRKLAND

State:WA

ZI

P:98033-7357

Country:US

Info Phone Num:425-889-3617

Emergency Phone Num:425-889-3617

Resp. Party Other MSDS Num.:P71945V

CAGE:0STM5

=== Contractor Identification ===

Company Name:CHEMICAL COMMODITIES AGENCY, INC.

Address:27447 PACIFIC STREET

Box:City:HIGHLAND

State:CA

ZIP:92346-2640

Country:US

Phone:909-864-2310

CAGE:60777

Company Name:DC GROUP UNITED MARINE SUPPLY

Address:23205 EARLY AVE

Box:City:TORRANCE

State:CA

ZIP:90505-4002

Country:US

Phone:310-784-1960

CAGE:00H62

Company Name:VOPAK USA IN

C

Address:6100 CARILLON POINT  
Box:City:KIRKLAND  
State:WA  
ZIP:98033-7357  
Country:US  
Phone:425-889-3400/425-889-3617  
CAGE:0STM5

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Composition/Information on Ingredients  
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Ingred Name:1,1,1-TRICHLOROETHANE  
CAS:71-55-6  
RTECS #:KJ2975000  
< Wt:96.5  
OSHA PEL:1900 MG/M3;350 PPM  
OSHA STEL:450 PPM STEL  
ACGIH TLV:1910 MG/M3;350 PPM  
ACGIH STEL:2460 MG/M3;450 PPM  
EPA Rpt Qty:1000 LBS  
DOT Rpt Qty:1000 LBS  
Ozone Depleting Chemical:1

Ingred Name:1,4-DIETHYLENE DIOXIDE  
CAS:123-91-1  
R  
TECS #:JG8225000  
< Wt:3.  
OSHA PEL:360 MG/M3;100 PPM  
ACGIH TLV:90 MG/M3;25 PPM  
EPA Rpt Qty:100 LBS  
DOT Rpt Qty:100 LBS

Ingred Name:1,2-BUTYLENE OXIDE  
CAS:106-88-7  
RTECS #:EK3675000  
< Wt:.5  
EPA Rpt Qty:1 LB  
DOT Rpt Qty:1 LB

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Hazards Identification  
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Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:ACUTE:INHAL:MAJOR POTNTL RTE OF EXPOS.  
MIN EFTS OBSER

VED 1000 PPM.

BLOOD PRESS DEPRESS, CARD SENSI T & VENTRICULAR ARRHY CAN RSLT FROM EXPOS TO NEAR-ANESTH LEVELS. STUDIES IN LAB ANIMALS HAVE SHOWN 1,1,1-TRICHLOROETHANE IN AEROSOL FORM TO BE MORE ACUTELY TOX THAN 1,1,1-TRICHLOROETHANE VAP. EYE CONT :LIQ CAN CAUSE SLIGHT TEMPORARY IRRIT W/SLIGHT TEMPORARY CORNEAL INJURY. VAPS CAN IRRIT EYES. SKIN CONT:RPTD/PRLNG CONT CAN CAUSE IRRIT, DEFAT OF SKIN & DERM. ABSORPTION THRU INTACT SKIN IS POSS IF CO NT W/LIQ IS PRLNG. (EFTS

OF OVEREXP)

Explanation of Carcinogenicity:THE AVAILABLE DATA INDICATES THAT 1,1,1-TRICHLOROETHANE AND THIS MIXTURE ARE NOT CARCINOGENIC IN LAB ANIMALS. 1,1,1-TRICHLOROETHANE IS NOT LISTED ON THE OSHA, IARC OR NTP CARCINOGEN LISTS.

Effects of Overexposure:HLTH HAZ:1,4-DIETHYLENE DIOXIDE AS PURE SUBSTANCE IS READILY ABSORBED THRU SKIN. INGEST:SINGLE DOSE TOX IS LOW TO MOD. IF VOMIT OCCURS, 1,1,1-TRICHLOROETHANE CAN BE ASPIRATED INTO LUNGS, WHICH CAN CAU SE CHEM PNEUM & SYSTEMIC EFTS.

CHRONIC:CHLOROCARBON MATLS HAVE PRDCD SENSIT OF MYOCARDIUM TO EPINEPHRINE IN LAB ANIMALS & COULD HAVE SIMILAR EFT IN HUMANS. ADRENOMIMETICS (E.G.,EPINEPHRINE) MAY BE CON TRAINCATED EXCEPT FOR LIFE-SUSTAINING USES IN HUMANS ACUTELY/CHRONICALLY EXPOSTO CHLOROCARBONS . FINDING OF CHRONIC TOX EFTS IN LAB ANIMALS MAY INDICATE TOX TO HUMANS. OVEREXP SHOULD BE AVOIDE D, FAILURE TO DO SO COULD (SUPP DATA)

Medical Cond Aggravated by Exposure:ACUTE AND CHRONI C LIVER DISEASE AND RHYTHM DISORDERS OF THE HEART.

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===== First Aid Measures =====

First Aid:INHALATION: REMOVE PATIENT TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION, CALL MD. EYES: IMMEDIATELY FLUSH WITH WATER FOR AT LEAST 15 MINUTES IF IRRITATION PERSISTS, CALL MD. SKIN: IMMEDIATELY FLUSH WITH WATER FOR AT LEAST 15MINUTES IF IRRITATION PERSISTS. CALL MD. REMOVE CONTAMINATED CLOTHING AND SHOES. WASH EXPOSED AREA WITH SOAP AND WATER. WASH CONTAMINATED CLOTHING BEFORE REUSE. INGESTION: DO NOT INDUCE VOMITING. CONTACT MD OR EMERGENCY MEDICAL FACILITY IMMEDIATELY. NOTE TO MD (INCLUDING ANTIDOTES): ADRENALINE SHOULD NEVER BE GIVEN TO PERSONS OVEREXPOSED TO 1,1,1-TRICHLOROETH ANE.

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===== Fire Fighting Measures =====

Flash Point Method:TCC  
Flash Point:NONE  
Lower Limits:7.5%  
Upper Limits:15.0%  
Extinguishing Media:WATER, DRY CHEMICALS, FOAM OR CARBON DIOXIDE.  
Fire F

ighting Procedures:WEAR NIOSH APPROVED PRESSURE DEMAND SCBA & FULL PROTECTIVE EQUIPMENT . AVOID SKIN CONTACT.

Unusual Fire/Explosion Hazard:THERMAL DECOMPOSITION PRODUCTS MAY INCLUDE HCL & PHOSGENE . CONCENTRATED VAPORS CAN BE IGNITED BY HIGH INTENSITY IGNITION SOURCE. NFPA RATINGS: HEALTH - 2; FLAMMABILITY - 1; REACTIVITY - 0.

===== Accidental Release Measures =====

Spill Release Procedures:EVACUATE AREA, VENT & AVOID BRTHG VAPS. DIKE AREA TO CO  
NTAIN SPILL. IF SPILL OCCURS INDOORS, TURN OFF AIR CONDITIONING &/OR HEATING SYS, TO PVNT VAPS FROM CONTAM ENTIRE BLDG. CLEAN UP AREA (WEAR PROT EQUIP - REFER TO PERSONAL PROT & CONTROLS SECTION) BY MOPPING UP/WITH ABSORB MATL & PLACE IN CLSD CNTNRS FOR DISP. AVOID CONTAM OF GROUND & SURF WATERS. DO NOT FLUSH TO SEWER. REPORTABLE (SUPP DATA)

===== Handling and Storage =====

Handling and Storage Precautions:AVOID CONT W/SKIN & AVOID BRTHG VAPS.

DO NOT EAT, DRINK/SMOKE IN WORK AREA. FOLLOW PROT CONTROLS SET FORTH IN PERSONAL PROT & CONTROLS SECTION WHEN HNDLG THIS PROD. STORE LABELED & SEALED CNTNRS IN CO OL, DRY, WELL-VENTED AREA. PVNT WATER/MOIST AIR FROM ENTERING STOR TANKS/CNTNRS.

Other Precautions:NO SMOKING IN AREA OF USE. DO NOT USE IN GEN VICIN OF ARC WELDING, OPEN FLAMES &/OR HOT SURFS. HEAT &/OR UV RADIA MAY CAUSE FORM OF HCL &/OR PHOSGENE . DO NOT CUT/WELD ON EMPTY/FULL DRUMS. ALUMI NUM EQUIP

SHOULD NOT BE USED FOR STOR &/OR TRANSFER.

VAPS ARE HVR/AIR & WILL COLLECT IN LOW AREAS. D O NOT (SUPP DATA)

===== Exposure Controls/Personal Protection =====

Respiratory Protection:WHERE VAPOR CONCENTRATION EXCEEDS OR IS LIKELY TO EXCEED 350 PPM, A NIOSH APPROVED ORGANIC VAPOR RESPIRATOR IS ACCEPTABLE. A NIOSH APPROVED SCBA OR AIR LINE RESPIRATOR, WITH FULL FACE PIECE, IS REQUIR ED FOR VAPOR CONCENTRATIONS ABOVE 1000 PPM AND FOR SPILLS AND/OR EMERGENCIES

. FOLLOW ANY APPLICABLE RESPIRATOR  
USE STANDARDS OR REGULATIONS.

Ventilation:DO NOT USE IN CLOSED OR CONFINED SPACE. OPEN DOORS AND/OR  
WINDOWS. USE VENTILATION TO MAINTAIN EXPOSURE LEVELS BELOW 350 PPM.

Protective Gloves:IMPERVIOUS GLOVES .

Eye Protection:ANSI APPROVED CHEMICAL WORKERS GOGGLES & FULL LENGTH  
FACESHIELD .

Other Protective Equipment:EYE WASH & DELUGE SHOWER MEETING ANSI DESIGN  
CRITERIA . TO DETERMINE EXPOSURE LEVEL(S), MONITORING SHOULD BE  
PERFORMED REGULARLY.

W

ork Hygienic Practices:WASH HANDS PRIOR TO EATING, DRINKING OR USING  
RESTROOM. CONTACT LENSES SHOULD NOT BE WORN.

Supplemental Safety and Health

EFTS OF OVEREXP:RSLT IN INJURY, ILLNESS/EVEN DEATH. CHRONIC EXPOS TO  
1,1,1-TRICHLOROETHANE & THIS MIXT HAVE CAUSED LIVER TOX EFTS IN  
EXPTL ANIMALS. -- SPILL PROC:QTY IS 1000 LBS. NOTIFY NRC (80-424-88  
02) OF UNCONTAINED RELS TO ENVIRON IN EXCESS OF RQ. -- OTHER  
PREC:ENTER CONFINED SPACES SUCH AS TANKS/ (ECOLOGICAL INFO)

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===== Physical/Chemical Properties =====

Boiling Pt:=73.9C, 165.F

B.P. Text:@ 760 MM HG

Vapor Pres:100 MM HG @ 20C

Vapor Density:4.6(AIR=1)

Spec Gravity:1.32 @ 25/25C (H\*2O=1)

Evaporation Rate & Reference:0.4 (ETHER=1)

Solubility in Water:0.07 G/100 G @ 25C

Appearance and Odor:CLEAR, COLORLESS LIQUID; MILD, SWEET ODOR.

Percent Volatiles by Volume:100

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES

STRONG ALKALI

S, OXIDIZERS, AND REACTIVE METALS (I.E. ALUMINUM,  
POTASSIUM, SODIUM, ETC). REFER TO HANDLING AND STORAGE SECTION FOR  
ADDITIONAL INFORMATION ON ALUMINUM.

Stability Condition to Avoid:AVOID CONTACT WITH FLAMES, ELECTRIC ARCS,  
OR OTHER HOT SURFACES THAT CAN CAUSE THERMAL DECOMPOSITION.

Hazardous Decomposition Products:HYDROGEN CHLORIDE, CHLORINE, PHOSGENE.

Conditions to Avoid Polymerization:WILL NOT OCCUR.

===== Toxicological Information =====

Toxicologica

I Information:REPRODUCTIVE TOXICITY: THREE STUDIES HAVE BEEN PERFORMED ON LAB ANIMALS TO EVALUATE EFFECTS OF 1,1,1-TRICHLOROETHANE ON REPRODUCTION AND FETAL DEVELOPMENT. TWO OF THE THREE STUDIES INDICATE NO REPRODUCTION TOXICITY. THE THIRD STUDY NOTED DELAYS IN NORMAL DEVELOPMENT, BUT THESE DELAYS DID NOT AFFECT LATER LIFE.

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Ecological Information  
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Ecological:N/P --SUPP DATA: PITS WITHOUT FOLLOWING PROPER ENTRY PROCEDURES AS REQUIRED BY 29 CFR 1910.146. CONTACT WITH ALUMINUM PARTS IN A PRESSURIZABLE FLUID SYSTEM MAY CAUSE VIOLENT REACTIONS. CONSULT EQUIPMENT SUPPLIER FOR FURTHER INFORMATION. DONOT REMOVE OR DEFACE LABEL. DO NOT REUSE DRUM WITHOUT RECYCLING OR RECONDITIONING I/A/W ANY APPLICABLE FEDERAL, STATE OR LOCAL LAWS.

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Disposal Considerations  
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Waste Disposal Methods:CONTAMINATED MATERIAL MUST BE DISPOSED OF IN A PERMITTED HAZARDOUS WASTE MANAGEMENT FACILITY. RECOVERED LIQUIDS MAY BE SENT TO A LICENSED RECLAIMER OR INCINERATION FACILITY. CONSULT FEDERAL, STATE, OR LOCAL DISPOSAL AUTHORITIES FOR APPROVEDPROCEDURES.

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MSDS Transport Information  
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Transport Information:DOT SHIPPING DESCRIPTION (49 CFR 172.101): 1,1,1-TRICHLOROETHANE, 6.1, UN 2831, PG III, RQ. PLACARD REQUIRED: KEEP AWAY FROM FOOD, 2831, CLASS 6. LABEL REQUIRED: KEEP AWAY FROM FOOD, CLASS 6. LABEL AS REQUIRED BY OSHA HAZARD COMMUNICATIONSTANDARD AND ANY APPLICABLE STATE AND LOCAL REGULATIONS.

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Regulatory Information  
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SARA Title III Information:1,1,1-TRICHLOROETHANE & 1,4-DIETHYLENE DIOXIDE ARE CHEMICAL(S) SUBJECT TO REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF THE 1986 SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA) AND 40 CFR PART 372. SARA TITLE III HAZARD CATEGORIES: IMMEDIATE HEALTH, DELAYED HEALTH.

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Other Information  
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