

MALLINCKRODT INC SCIENCE PRODUCTS DIVISION -- TETRACHLOROETHYLENE --  
6810-00-819-1128

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

Product ID:TETRACHLOROETHYLENE

MSDS Date:04/06/1989

FSC:6810

NIIN:00-819-1128

MSDS Number: BMXJB

=== Responsible Party ===

Company Name:MALLINCKRODT INC SCIENCE PRODUCTS DIVISION

Address:PARIS BYPASS

Box:M

City:PARIS

State:KY

ZIP:40361

Country:US

Info Phone Num:314-982-5000

E

mergency Phone Num:314-982-5000

CAGE:62910

=== Contractor Identification ===

Company Name:MALLINCKRODT SPECIALTY CHEMICALS CO

Address:222 RED SCHOOL LANE

Box:City:PHILLIPSBURG

State:NJ

ZIP:08865

Country:US

Phone:908-859-2151

CAGE:62910

===== Composition/Information on Ingredients =====

Ingred Name:PERCHLOROETHYLENE (TETRACHLOROETHYLENE) (SARA III)

CAS:127-18-4

RTECS #:KX3850000

Fraction by Wt: 100%

Other REC Limits:NONE SPECIFIED

OSHA PEL:100 PPM

ACGIH TLV:25PPM/100,A3 STEL;9

EPA Rpt Qty:100 LBS

DOT Rpt Qty:100 LBS

## ===== Hazards Identification =====

LD50 LC50 Mixture:ORAL LD50 (RAT) = 5000 MG/KG

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES

Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:NO

Health Hazards Acute and Chronic:ACUTE: MAY CAUSE EYE &amp; SKIN

IRRITATION. MAY CAUSE RESPIRATORY TRACT IRRITATION. CENTRAL NERVOUS SYSTEM DEPRESSANT. LOSS OF CONSCIOUSNESS AND EVEN DEATH CAN OCCUR AT HIGH LEVELS OF E

XPOSURE. CHRONIC:LI VER AND KIDNEY DAMAGE.

ASPIRATION HAZARD DO NOT INDUCE VOMITING. PROBABLE CANCER HAZARD.

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

Effects of Overexposure:INCOORDINATION AND IMPAIRED JUDGMENT MAY OCCUR AT VAPOR EXPOSURES FROM 500-1000 PPM. DIZZINESS, DROWSINESS, AND GENERAL ANESTHETIC EFFECTS MAY OCCUR IN RANGES OF 1000 PPM AND HIGHER.

Medical Cond Aggravated by Exposure:EYE/SKIN/RESPIRATORY CONDITIONS MAY BE AGGRAVATED BY EXPOSURE. MAY CAUSE CANCER.

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

First Aid: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 AT TENTION. SKIN: REMOVE CONTAMINATED CLOTHING. WASH WITH SOAP AND WATER PROMPTLY. INGESTION: DO NOT INDUCE VOMITING. GIVE MILK OR USP MINERAL OIL. GET IMMEDIATE MEDICAL ATTENTI

ON.

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

Extinguishing Media:ANY MEDIA SUITABLE FOR SURROUNDING FIRES.

Fire Fighting Procedures:FIRE FIGHTERS SHOULD USE NIOSH APPROVED SCBA &amp; FULL PROTECTIVE EQUIPMENT WHEN FIGHTING CHEMICAL FIRE. USE WATER SPRAY TO COOL NEARBY CONTAINERS EXPOSED TO FIRE.

Unusual Fire/Explosion Hazard:FIRE OR EXCESSIVE HEAT MAY CAUSE

PRODUCTION OF HAZARDOUS DECOMPOSITION PRODUCTS INCLUDING PHOSGENE AND HYDROGEN CHLORIDE.

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

Spill Release Procedures: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

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

Handling and Storage Precautions: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.

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

Respiratory Protection:IN HIGH VAPOR AREA, USE NIOSH APPROVED RESPIRATOR WITH ORGANIC VAPOR CARTRIDGE. USE SELF-CONTAINED BREATHING APPARATUS IF ALLOWABLE VAPOR LEVELS ARE EXCEEDED OR WORKING IN A CONFINED AREA.  
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 BREATHE VAPORS OR MIST.  
Supplemental Safety and Health  
TARGET ORGANS ARE SKIN, CNS, CVS, AND EYES.

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

HCC:T4  
Boiling Pt:B.P. Text:119F,48C  
Vapor Pres:16  
Vapor Density:5.83  
Spec Gravity:1.63  
Evaporation Rate & Reference:0.27 (CCL4=1)  
Solubility in Water:0.015% BY WT  
Appearance and Odor:CLEAR, COLORLESS LIQUID, EHTEREAL ODOR  
Percent Volatiles by Volume:100

===== St

ability and Reactivity Data =====

Stability Indicator/Materials to Avoid: YES

STRONG OXIDIZERS AND ALKALIS, ACTIVE METALS (SODIUM, POTASSIUM, LITHIUM, ZINC, ALUMINUM, BARIUM ETC.)

Stability Condition to Avoid: HIGH TEMPERATURES, SPARKS, AND OPEN FLAMES. HIGH PRESSURE ALUMINUM SYSTEMS.

Hazardous Decomposition Products: DECOMPOSES INTO HIGHLY TOXIC AND IRRITATING HYDROGEN CHLORIDE AND PHOSGENE.

===== Disposal Considerations =====

Waste Dispo

sal Methods: CLEAN-UP DEBRIS WILL LIKELY BE A LAND-BANNED HAZARDOUS WASTE. DISPOSAL MUST BE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

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