

MALLINCKRODT INC SCIENCE PRODUCTS DIVISION -- TETRAHYDROFURAN -- 6810-00-368-5011
===== Product Identification =====

Product ID:TETRAHYDROFURAN

MSDS Date:04/06/1989

FSC:6810

NIIN:00-368-5011

MSDS Number: BQDKM

=== 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:606-987-7000

Emergency P

hone Num:606-987-7000

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:TETRAHYDROFURAN (SARA III)

CAS:109-99-9

RTECS #:LU5950000

Other REC Limits:NONE DETERMINED

OSHA PEL:200 PPM/250 STEL

ACGIH TLV:200 PPM/250STEL;9192

EPA Rpt Qty:1000 LBS

DOT Rpt Qty:1000 LBS

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Hazards Identification
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LD50 LC50 Mixture:ORAL LDLO (RAT) IS 3,000 MG/KG

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

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

Health Hazards Acute and Chronic:INHALATION-THF IS AN ANESTHETIC AGENT
IN HIGH CONCENTRATIONS. INGESTION-IRRITATING TO THE MUCOUS
MEMBRANES. SKIN-CAUSES IRRITATION. EYE-IRRITATING TO EYE TISSUE.

Explanation of Carcinogenicity:NOT A CARCINOGEN.

Effects of Overexpo

sure:INHALATION-OVEREXPOSURE MAY CAUSE IRRITATION OF
THE NOSE & THROAT, DIZZINESS AND HEADACHE. INGESTION-MAY CAUSE SORE
THROAT AND ABDOMINAL PAIN. MAY CAUSE LIVER OR KIDNEY INJURY.
SKIN-CAUSES REDNESS AND PAIN.

Medical Cond Aggravated by Exposure:PERSONS WITH PRE-EXISTING SKIN
DISORDERS OR EYE PROBLEMS OR IMPAIRED LIVER OR KIDNEY FUNCTION MAY
BE MORE SUSCEPTIBLE TO THE EFFECTS OF THIS SUBSTANCE.

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First Aid Measures
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First Ai

d:INHALATION-REMOVE TO FRESH. IF NOT BREATHING, GIVE CPR. IF
BREATHING ID HARD, GIVE OXYGEN. CALL APHYSICIAN. INGESTION-GET
IMMEDIATE MEDICAL ATTENTION. IF NO PHYSICIAN, INDUCE VOMITINH
IMMEDIATELY BY G IVING 2 GLASSES OF WATER & STICKING FINGER DOWN
THROAT. SKIN-FLUSH SKIN WITH WATER. CALL A PHYSICIAN. EYE-WASH EYE
WITH PLENTY OF WATER. GET MIDICAL ATTENTION.

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Fire Fighting Measures
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Flash Point Method:CC

Flash Point:6F,-14C

Auto

ignition Temp:Autoignition Temp Text:321C

Lower Limits:1.8

Upper Limits:11.8

Extinguishing Media:DRY CHEMICAL, FOAM, OR CARBON DIOXIDE. WATER SPRAY
MAY BE USED TO KEEP FIRE EXPOSED CONTAINERS COOL.

Fire Fighting Procedures:IN THE EVENT OF A FIRE, WEAR FULL PROTECTIVE
CLOTHING & NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS WITH
FULL FACEPIECE OPERATED IN THE PRESSURE DEMAND.

Unusual Fire/Explosion Hazard:ABOVE FLASH POINT, VAPOR-AIR MIXTURES ARE
EXPLOSIVE WITHIN FLAMMABLE LIM

ITS NOTED ABOVE. MAY FORM EXPLOSIVE
ORGANIC PEROXIDES WHEN EXPOSED TO AIR, LIGHT OR AGE.

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

Spill Release Procedures: VENTILATE AREA OF LEAK OR SPILL. REMOVE ALL SOURCES OF IGNITION. CLEANUP PERSONNEL REQUIRE PROTECTIVE CLOTHING/RESPIRATORY PROTECTION. RETAIN & RECOVER LIQUID WHEN POSSIBLE. COLLECT AS HAZARDOUS WASTE .

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

Handling and Storage Precautions: PROTECT AGAINST PHYSICAL DAMAGE. STORE IN A COOL, DRY WELL-VENTILATED LOCATION, AWAY FROM DIRECT SUNLIGHT & ANY AREA WHERE FIRE HAZARD IS PRESENT.

Other Precautions: STORE IN TIGHTLY CLOSED CONTAINERS (PREFERABLY UNDER NITROGEN ATMOSPHERE). OUTSIDE OR DETACHED STORAGE IS PREFERRED. INSIDE STORAGE SHOULD BE IN A STANDARD FLAMMABLE LIQUID STORAGE ROOM OR CABINET.

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

Respiratory Protection: IF THE TLV IS EXCEEDED A FULL FACEPIECE CHEMICAL CARTRIDGE RESPIRATOR MAY BE WORN UP TO THE MAXIMUM USE CONCENTRATION SPECIFIED BY THE RESPIRATOR SUPPLIER. ALTERNATIVELY, A SUPPLIED AIR FULL FACEPIECE RESPIRATOR OR AIRLINED HOOD MAY BE WORN

Ventilation: A SYSTEM OF LOCAL AND/OR GENERAL EXHAUST IS RECOMMENDED TO KEEP EMPLOYEE EXPOSURE BELOW THE AIRBORNE EXPOSURE LIMITS.

Protective Gloves: RUBBER OR NEOPRENE GLOVES.

Eye Protection: CHEMICAL SAFETY GOGGLES/FULL FACE SHIELD

Other Protective Equipmen

t: IMPERVIOUS BOOTS, APRON, OR COVERALLS AS NEEDED IN AREAS OF UNUSUAL EXPOSURE.

Work Hygienic Practices: CONTACT LENSES SHOULD NOT BE WORN. MAINTAIN EYE WASH FOUNTAIN & QUICK DRENCH FACILITIES IN WORK AREA.

Supplemental Safety and Health

NONE

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

HCC: F2

Boiling Pt: B.P. Text: 151F, 66C

Melt/Freeze Pt: M.P/F.P Text: -162F, -108C

Vapor Pres: 114 MMHG

Vapor Density: 2.5

Spec Gravity: 0.88

Evaporation Rate & Reference: 14.5 (BUTYL

ACETATE=1)

Solubility in Water:MISCIBLE IN WATER

Appearance and Odor:COLORLESS, MOBILE LIQUID. ETHER-LIKE ODOR.

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

Stability Indicator/Materials to Avoid:YES

REACTS VIOLENTLY WITH AIR ON STANDING, LITHIUM ALUMINUM HYDRIDE, STRONH
OXIDIZERS, NAALH2 & POTASSIUM HYDROXIDE.

Stability Condition to Avoid:STABLE IN CLOSED CONTAINER WITH OXYGEN &
LIGHT EXCLUDED. DISTILLATION OR EVAPORATION CAN CONCENTRATE
PEROXIDES & EXPLODE

Hazardous Decomposition Products:EMITS IRRITATING FUMES AND TOXIC GASES
AND VAPORS WHEN HEATED TO DECOMPOSITION.

Conditions to Avoid Polymerization:THIS SUBSTANCE DOES NOT POLYMERIZE.

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

Waste Disposal Methods:ATOMIZE IN A SUITABLE RCRA APPROVED COMBUSTION
CHAMBER, OR ABSORB WITH VERMICULITE, DRY SAND, EARTH OR SIMILIAR
MATERIAL FOR DISPOSAL AS HAZARDOUS WASTE IN A RCRA APPROVED
FACILITY. DO NOT FLUSH TO SE WER.

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