

MALLINCKRODT INC.,SCIENCE PRODUCTS DIVISION -- ETHYL ETHER -- 6505-00-153-8225

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

Product ID:ETHYL ETHER

MSDS Date:02/15/1989

FSC:6505

NIIN:00-153-8225

MSDS Number: BRKSD

=== 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

Emergency Phone Nu

m: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:ETHYL ETHER (SARA III)

CAS:60-29-7

RTECS #:KI5775000

Other REC Limits:NONE DETERMINED

OSHA PEL:400 PPM/500 STEL

ACGIH TLV:400PPM/500STEL; 9192

EPA Rpt Qty:100 LBS

DOT Rpt Qty:100 LBS

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===== Hazards Identification =====

LD50 LC50 Mixture:ORAL LD50 (RAT) IS 1215 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-IRRITANT. GENERAL

ANESTHESIA BY INHALATION. CONTINUED EXPOSURE MAY LEAD TO
RESPIRATORY FAILURE OR DEATH. INGESTION-IRRITATING TO THE MUCOUS
MEMBRANES. INGESTION OF 1-2 OUNCES MAY BE FATAL. SKIN-IRRITATING
TO THE SKIN & MUCOUS

MEMBRANES. EYE-MAY CAUSE IRRITATION. PROLONGED
EXPOSURE CAN CAUSE EYE DAMAGE.

Explanation of Carcinogenicity:NOT CARCINOGENIC.

Effects of Overexposure:INHALATION-IRRITATION OF NOSE & THROAT,
VOMITING & IRREGULAR RESPIRATION, FOLLOWED BY DIZZINESS, DROWSINESS
& UNCONSCIOUSNESS. INGESTION-THE STOMACH BECOMES DISTENDED, WHICH
CAUSE BELCHING, VOMITING, UNCONSCIOUSNESS & COMA. PROLONGED
EXPOSURES MAY RESULT IN HEADACHE, DROWSINESS, SM EXCITATION AND
PSYCHIC DISTURBANCES.

Medica

I Cond Aggravated by Exposure:PERSONS WITH PRE-EXISTING SKIN

DISORDERS OR EYE PROBLEMS OR IMPAIRED LIVER, KIDNEY OR RESPIRATORY
FUNCTION MAY BE MORE SUSCEPTIBLE TO THE EFFECTS OF THIS SUBSTANCE.

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

First Aid:INHALATION-REMOVE TO FRESH AIR. IF NOT BREATHING PERFORM CPR.
IF HARD TO BREATHE, GIVE OXYGEN. CALL PHYSICIAN. INGESTION-INDUCE
VOMITING BY GIVING 2 GLASSES OF WATER & STICKING FINGER DOWN
THROAT. CALL PH

YSICIAN. SKIN-WASH SKIN WITH PLENTY OF WATER FOR AT
LEAST 15 MIN. GET MEDICAL ATTENTION. EYE-WASH EYES WITH PLENTY OF
WATER FOR AT LEAST 15 MIN. CALL A PHYSICIAN.

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

Flash Point Method:CC

Flash Point:-49F,-45C

Autoignition Temp:Autoignition Temp Text:160C

Lower Limits:1.9

Upper Limits:36.0

Extinguishing Media:DRY CHEMICAL, FOAM OR CARBON DIOXIDE. TREAT AS A
FLAMMABLE GAS IN A FIRE SITUATION. USE WATER TO COOL EXPOSED

CONTAINERS

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 LIMITS. MAY FORM EXPLOSIVE PEROXIDES ON LONG STANDING OR AFTER EXPOSURE TO AIR OR LIGHT.

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

Spill Release Procedures: R

REMOVE ALL SOURCES OF IGNITION. VENT AREA. USE RESP PROTECTION & PROTECTIVE CLOTHING. CONTAIN AND RECOVER LIQUID WHEN POSSIBLE. ABSORB WITH VERMICULITE, DRY SAND, EARTH OR SIMILAR MATERIAL. SCOOP UP WITH NONSPARKING TOOLS & PLACE IN A CLOSED CONTAINER.

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

Handling and Storage Precautions: PROTECT AGAINST PHYSICAL DAMAGE. OUTSIDE OR DETACHED STORAGE PREFERRED. INSIDE STORAGE SHOULD BE STANDARD FLAMMABLE LIQUID STORAGE ROOM OR CABINET.

Other Precautions: SEPARATE FROM OXIDIZING MATERIALS. STORAGE & USE SHOULD BE NO SMOKING AREAS. ISOLATE FROM OTHER COMBUSTIBLE MATERIAL. PROTECT FROM DIRECT SUNLIGHT.

===== 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. 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 EXPOSURE LIMITS.

Protective Gloves: WEAR PROTECTIVE GLOVES.

Eye Protection: USE CHEMICAL SAFETY GOGGLES.

Other Protective Equipment: WEAR CLEAN BODY COVERING.

Work Hygienic Practices: MAINTAIN EYE WASH FOUNTAIN AND QUICK DRENCH FACILITIES IN WORK AREA.

Supplemental Safety and Health

DANGER! DO NOT OPEN UNLESS CONTENTS ARE AT ROOM TEMPERATURE (72F) OR

BELOW. ALLOW ATLEAST 24 HOURS FOR MATERIAL TO COOL TO ROOM
TEMPERATURE BEFORE OPENING CONTAINER. DANGER! EXTREMELY FLAMMABLE.
HARMFUL IF SWALLOWED OR INHALED.

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

HCC:F2

Boiling Pt:B.P. Text:95.0F,35.0C

Melt/Freeze Pt:M.P/F.P Text:-189F,-123C

Vapor Pres:422 MMHG

Vapor Density:2.6

Spec Gravity:0.71

Evaporation Rate & Reference:37.5 (BU-AC=1)

Solubility in Water:7.5 GM/100 GM WATER.

Appearance and Odor:COLORLESS LIQUID.

SWEET, ETHEREAL ODOR.

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

Stability Indicator/Materials to Avoid:YES

CAN REACT DANGEROUSLY WITH ACETYL PEROXIDE, LIQUID AIR, BROMOAZIDE,
CHLORINE, AND STRONG OXIDIZERS SUCH AS NITRATES.

Stability Condition to Avoid:HEAT, LIGHT & LONG STANDING CONTRIBUTE TO
INSTABILITY. REACTS WITH AIR TO FORM EXPLOSIVE PEROXIDES.

Hazardous Decomposition Products:TOXIC GASES AND VAPORS SUCH AS CARBON
MONOXIDE MAY BE RELEASED IN A FIRE.

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

Waste Disposal Methods:COLLECT SPILLS & DISSOLVE IN AN ALCOHOL OF
GREATER MOLECULAR WEIGHT THAN BUTYL ALCOHOL, THEN ATOMIZE IN AN RCRA
APPROVED COMBUSTION CHAMBER. ETHER SHOULD NOT BE FLUSHED TO SEWER
BECAUSE OF THE POSSIBILITY OF AN EXPLOSION; ENSURE COMPLIANCE.

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