

MONSANTO COMPANY -- COOLANOL 20 DIELECTRIC HEAT TRANSFER FLUID -- 9160-00-881-8280
===== Product Identification =====

Product ID:COOLANOL 20 DIELECTRIC HEAT TRANSFER FLUID

MSDS Date:01/01/1987

FSC:9160

NIIN:00-881-8280

MSDS Number: BFTSD

=== Responsible Party ===

Company Name:MONSANTO COMPANY

Address:800 N LINDBERGH BLVD

City:ST LOUIS

State:MO

ZIP:63141

Country:US

Info Phone Num:314-694-1000

Emer

gency Phone Num:314-694-1000

CAGE:DO969

=== Contractor Identification ===

Company Name:MONSANTO COMPANY

Address:800 N LINDBERGH BLVD

Box:City:SAINT LOUIS

State:MO

ZIP:63167

Country:US

Phone:314-694-6661 OR 800-332-3111

CAGE:76541

Company Name:MONSANTO COMPANY

Address:800 N. LINDBERGH BLVD

City:ST. LOUIS

State:MO

ZIP:63167

Phone:314-694-1000

CAGE:DO969

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

Ingred Name:ORGANOSILICATE ESTER (PRODUCT OF REACTING SILICON TETRA
CHL

ORIDE WITH ANHYDROUS ALCOHOL)

Ingred Name:2,6-DI-TERT-BUTYL-P-CRESOL

CAS:128-37-0

RTECS #:GO7875000

Fraction by Wt: 0.5%

OSHA PEL:10 MG/M3

ACGIH TLV:10 MG/M3; 9192

Ingred Name:2-ETHYL-1-BUTANOL (PRESENT AS A PRODUCT OF HYDROLYSIS. SEE
CASE HISTORY 85098H)

CAS:97-95-0

RTECS #:EL3850000

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

LD50 LC50 Mixture:>15,800 MG/KG ORAL LD50 RAT

Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO

Reports of Carcinogenicity:NTP:NO

IARC:NO OSHA:NO

Health Hazards Acute and Chronic:PRODUCT CONSIDERED TO BE SEVERLY
IRRITATING TO SKIN. EXCESSIVE EXPOSURE TO VAPORS OR MIST OF THIS
MATERIAL HAS BEEN REPORTED TO CAUSE RESPIRATORY TRACT IRRITATION.
EYE CONTACT MAY CAUSE IRRITATION.

Explanation of Carcinogenicity:PRODUCT CONTAINS NO MATERIALS CURRENTLY
CLASSIFIED AS CARCINOGENIC BY NTP, IARC OR OSHA.

Effects of Overexposure:CAUSES IRRITATION TO EYES & SKIN;VAP IN
HUMID/CLOSED AREA CAUSE HEADACHE,NAUSEA,UNCONSC
IOUSNESS,ETC.

Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

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

First Aid:EYES:IMMED FLUSH WITH PLENTY OF H2O.REMOVE CONTAMINTD
CLOTHG.WASH CLOTHING BEFORE REUSE.GET MED ATTN;SKIN:IMMED WASH
W/SOAP & PLENTY OF WATER;VAP INHALATION:IMMED REMOVE FM EXPOSURE
AREA.IMMED GET MED ICAL ATTN.

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

Flash Point Method:COC

Flash Point:>230F-

COC

Autoignition Temp:Autoignition Temp Text:550F

Lower Limits:UNK

Upper Limits:UNK

Extinguishing Media:WATER SPRAY,FOAM,DRY CHEM,CO2/OTHR SUITBLE AGENTS FOR CL B.

Fire Fighting Procedures:WEAR SCBA & FULL PROTCTV CLOTHG;ALL EQUIP MUST BE CLEANED

Unusual Fire/Explosion Hazard:NONE NOTED BY MFR;

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

Spill Release Procedures:ELIM IGN SOURCES.PROVIDE VENTILATION.USE PROTECTIVE EQUIPMENTS.CONTAIN FLUID.USE VACUUM TO PICK O R ABSORB

ONTO CLAY OR SAWDUST.KEEP WASTE/ABSORBD MATL IN CLOSED CONTAINERS PENDING DISPOSAL;DO NOT DUMP ,SPILL,RINSE,OR WASH INTO SEWERS OR WATERWAYS.

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:DO NOT STORE IN OPEN CONTAINERS.MOISTURE MAY DETERIORATE PRODUCT IF STORED IN OPEN CONTAINERS;AVOID PHYSICAL DAMAGE TO CONTAINRS.AVOID SKIN CONTACT.

Other Precautions:DONOT EX

POSE TO MOISTURE AND HIGH TEMP ENVIRONMENTS

WHICH MAY DETERIORATE PROD.; WATER AT HIGH TEMP CAUSES HYDROLYSIS;AVOID BREATHG VAP;WASH THOROUGHLY AFTER HANDLING.AVOID FIRE/IGN CONDITION

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

Respiratory Protection:USE NIOSH APPRVD EQUIP WHEN EXPOSD TO MIST/AEROSOL OR AT ELEVTD TEMP

Ventilation:LOCAL EXHAUST:PREFERRED

Protective Gloves:N-BUTYL NITRILE

Eye Protection:SAFETY/CHEM GOGGLES

Other Protective Equipment:AS REQ

UIRED TO PREVENT PROLONGED CONTACT.

Work Hygienic Practices:WASH IMMEDIATELY IF SKIN IS CONTAMINATED.

REMOVE CONTAMINATED CLOTHING PROMPTLY AND WASH BEFORE REUSE.

Supplemental Safety and Health

MFR MSDS NO.M00006586 DATED 5/1/86;SP GRAVITY

RANGE:0.884-0.890;HAZARDOUS COMPONENTS PER MSDS AND/OR HMTCL LETTER DATED 12/5/84-SEE DGSC-STH CAS NO.85098H FOR DETAILS;NOT A SPEC ITEM.

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

HCC:N1

Boiling Pt:B.P. Text:>450F.

V

apor Pres:.02

Spec Gravity:UNK

Evaporation Rate & Reference:N.A.

Solubility in Water:SLIGHT

Appearance and Odor:CLEAR,LIGHT AMBER LIQUID,MILD SWEET ODOR

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

Stability Indicator/Materials to Avoid:YES

HIGHLY OXIDIZING MATL;H2O AT HIGH TEMP WILL CAUSE HYDRYSIS

Stability Condition to Avoid:AVOID TEMPERATURES ABOVE 300F;AVOID EXPOSURE TO HOT WATER.

Hazardous Decomposition Products:CO; CO2; SIO2;LOW MOL WT

HYDROCARBONS,& P

ARTIAL SILICATES.

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

Waste Disposal Methods:DISPOSE OF WASTE IN AN APPROVED INCINERATOR IAW LOCAL,STATE & FEDERAL REGULATIONS; MFR SPECIFIED,THIS MATERIAL SHOULD NOT BE DUMPED,SPILLED,RINSED,OR WASHED INTO SEWERS,OR PUBLIC WATERWAYS.

Disclaimer (provided with this information by the compiling agencies):

This information is formulated for use by elements of the Department of Defense. The United States of America i

n no manner whatsoever,

expressly or implied, warrants this information to be accurate and

disclaims all liability for its use. Any person utilizing this

document should seek competent professional advice to verify and

assume responsibility for the suitability of this information to their

particular situation.