

DOW CHEMICAL U S A GOVERNMENT MARKETING -- 1,1,1-TRICHLOROETHANE,INHIBITED --  
6810-00-476-5612

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

Product ID:1,1,1-TRICHLOROETHANE,INHIBITED

MSDS Date:05/12/1989

FSC:6810

NIIN:00-476-5612

MSDS Number: BDZTH

=== Responsible Party ===

Company Name:DOW CHEMICAL U S A GOVERNMENT MARKETING

Address:2020 DOW CENTER

City:MIDLAND

State:MI

ZIP:48640-6030

Country:US

Info Phone

Num:517-636-4400

Emergency Phone Num:517-636-4400

CAGE:71981

=== Contractor Identification ===

Company Name:CHEMICAL SPECIALISTS AND DEVELOPMENT INC

Address:2210 HACKBERRY LN

Box:687

City:CONROE

State:TX

ZIP:77305

Country:US

Phone:409-756-1065

CAGE:4N760

Company Name:DOW CHEMICAL CO

Address:100 LARKIN CENTER

Box:City:MIDLAND

State:MI

ZIP:48674

Country:US

Phone:800-258-2436

CAGE:96717

Company Name:DOW CHEMICAL U S A

Address:BARSTOW BLDG

City:MIDLAND

State:MI

ZIP:48640

Country:US

Phone:517-636-44

00  
CAGE:71981

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

Ingred Name:METHYL CHLOROFORM (1,1,1-TRICHLOROETHANE) (SARA III)  
CAS:71-55-6  
RTECS #:KJ2975000  
Fraction by Wt: 96.5%  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:350 PPM/450 STEL  
ACGIH TLV:350 PPM/450STEL;9192  
EPA Rpt Qty:1000 LBS  
DOT Rpt Qty:1000 LBS  
Ozone Depleting Chemical:1

Ingred Name:1,4-DIOXANE (DIETHYLENE DIOXIDE) (SARA III)  
CAS:123-91-1  
RTECS #:JG8225000  
Fraction by Wt: 2.5%  
Other REC Limits:NONE SPECIFIED  
D  
OSHA PEL:S, 100 PPM  
ACGIH TLV:S, 25 PPM; 9293  
EPA Rpt Qty:100 LBS  
DOT Rpt Qty:100 LBS

Ingred Name:1,2-BUTYLENE OXIDE (SARA III)  
CAS:106-88-7  
RTECS #:EK3675000  
Fraction by Wt: 0.47%  
Other REC Limits:NONE SPECIFIED  
EPA Rpt Qty:1 LB  
DOT Rpt Qty:1 LB

Ingred Name:NITROMETHANE  
CAS:75-52-5  
RTECS #:PA9800000  
Fraction by Wt: 0.34%  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:100 PPM  
ACGIH TLV:100 PPM; 9192

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

LD50 LC50 Mixture:ORAL LD50

(RAT) IS >10,000 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:PRODUCT IS IRRITATING TO BODY TISSUES, AND IS A CENTRAL NERVOUS SYSTEM DEPRESSANT, CAUSING NAUSEA AND DIZZINESS. CHRONIC OVER EXPOSURE MAY CAUSE DERMATITIS, LIVER AND/OR KIDNEY DAMAGE.

Explanation of Carcinogenicity:1,4-DIOXANE IS LISTED AS A CARCINOGEN BY IARC, NTP. TESTED AS A MIXTURE, THE PRODUCT SHOWED NO

CARCINOGENICITY.

Effects of Overexposure:HEADACHE, DIZZINESS, DROWSINESS, NAUSEA, TINGLING OR NUMBNESS OF THE EXTREMITIES, SENSES OF FULLNESS IN THE HEAD, SENSE OF WARMTH, STUPOR OR DULLNESS, LETHARGY AND DRUNKENNESS. VERY HIGH CONCENTRATIONS MAY LEAD TO UNCONSCIOUSNESS OR EVEN DEATH IN CONFINED OR POORLY VENTILATED AREAS.

Medical Cond Aggravated by Exposure:NONE GIVEN BY MANUFACTURER.

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

First Aid:EYE:FLUSH W/

WATER 15 MIN, HOLD LIDS OPEN. SKIN:WASH WITH SOAP & WATER. REMOVE CONTAMINATED CLOTHING AND LAUNDRY BEFORE REUSE. INHALED:REMOVE TO FRESH AIR. RESTORE BREATHING IF NECESSARY. INGESTED:DO NOT INDUCE VOMITING. GIVE 2 LARGE GLASSES OF MILK OR WATER AND GET IMMEDIATE MEDICAL CARE. GIVE NOTHING BY MOUTH IF UNCONSCIOUS. IF IRRITATION PERSISTS OR IS SEVERE,SEE A DOCTOR.

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

Flash Point Method:TCC

Flash Point

:NON-FLAMMABLE

Lower Limits:7.5

Upper Limits:12.5

Extinguishing Media:USE WATER FOG, CARBON DIOXIDE, FOAM, OR DRY CHEMICAL.

Fire Fighting Procedures:FIRE FIGHTERS SHOULD USE NIOSH APPROVED SCBA & 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. PRODUCT WILL FORM FLAMMABLE MIXTURES IN CONFINED & POORLY

VENTILATED AREAS.

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

Spill Release Procedures:SMALL SPILL: WIPE UP WITH RAGS OR TOWELS.  
VENTILATE AREA. 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 CONTAINER

S CLOSED WHEN NOT IN USE.

Other Precautions:VAPORS ARE HEAVIER THAN AIR AND WILL COLLECT IN LOW  
AREAS. DO NOT ENTER WHERE VAPORS ARE SUSPECTED WITHOUT SELF  
CONTAINED BREATHING APPARATUS AND AN OBSERVER.

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

Respiratory Protection:USE NIOSH/MSHA APPROVED AIR SUPPLIED RESPIRATOR  
OR RESPIRATOR FOR ORGANIC VAPOR IF EXPOSURE IS ABOVE THE TLV/PEL.  
IF EXPOSED ABOVE 1000 PPM USE ONLY A SUPPLIED AIR RESPIRATOR. SEE  
29 C

FR 1910.134 FOR REGULATIONS PERTAINING TO RESPIRATOR USE

Ventilation:NORMAL ROOM VENTILATION IS SUFFICIENT. SUPPLEMENT WITH  
LOCAL EXHAUST IF PEL/TLV IS EXCEEDED.

Protective Gloves:NEOPRENE, PVA GLOVES RECOMMENDED.

Eye Protection:SAFETY GLASSES OR SPLASH GOGGLES

Other Protective Equipment:APRON AND WORK CLOTHING TO MINIMIZE  
EXPOSURE. EYE WASH STATION & SAFETY SHOWER RECOMMENDED.

Work Hygienic Practices:USE GOOD CHEMICAL HYGIENE PRACTICE. AVOID  
UNNECESSARY CONTACT. WASH THOROUGHLY BE  
FORE EATING OR DRINKING.

Supplemental Safety and Health

TARGET ORGANS ARE SKIN, CNS, CVS, AND EYES.

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

HCC:T4

Boiling Pt:B.P. Text:165F,74C

Vapor Pres:100 MM

Vapor Density:4.55

Spec Gravity:1.321

Solubility in Water:0.07%

Appearance and Odor:CLEAR, COLORLESS LIQUID,IRRITATING ODOR

Percent Volatiles by Volume:100%

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

Stability Indicator/Materials to Avoid:YES

WATE

R AND ALUMINUM STORAGE CONTAINERS WILL DETERIORATE THE MATERIAL.  
POWDERED REACTIVE METALS SUCH AS ALUMINUM OR ZINC.

Stability Condition to Avoid:HIGH TEMPERATURES, ARCS, SPARKS, AND OPEN  
FLAMES

Hazardous Decomposition Products:WHEN INVOLVED IN FIRE, PRODUCT EMITS  
HIGHLY TOXIC AND IRRITATING FUMES OF HYDROGEN CHLORIDE AND  
PHOSGENE.

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

Waste Disposal Methods:DISPOSE I/AW ALL FEDERAL, STATE AND LOCAL  
REGULATIONS  
. MANUFACTURER SUGGESTS RECYCLE (PREFERRED) OR  
INCINERATE.

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 in 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.