

DOW CHEMICAL U.S.A. -- XUS 11211 DEVELOPMENTAL 1,1,1-TRICHLOROETHANE SOLVENT,18861  
-- 6810-00-476-5612

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

Product ID:XUS 11211 DEVELOPMENTAL 1,1,1-TRICHLOROETHANE SOLVENT,18861

MSDS Date:04/17/1991

FSC:6810

NIIN:00-476-5612

MSDS Number: CDZFR

=== Responsible Party ===

Company Name:DOW CHEMICAL U.S.A.

Address:CHEMICAL AND METALS DEPARTMENT

City:MIDLAND

State:MI

ZIP:

48674

Country:US

Info Phone Num:517-636-4400

Emergency Phone Num:517-636-4400

CAGE:96717

=== Contractor Identification ===

Company Name:BARTLETT CHEMICALS

Address:4955 RIVER ROAD

Box:10710

City:JEFFERSON

State:LA

ZIP:70121

Country:US

Phone:504-734-1971

CAGE:1V771

Company Name:DOW CHEMICAL CO

Address:100 LARKIN CENTER

Box:City:MIDLAND

State:MI

ZIP:48674

Country:US

Phone:800-258-2436

CAGE:96717

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

Ingred Name:METHYL CHLOROFORM (1,

1,1-TRICHLOROETHANE) (SARA 313)  
(CERCLA)

CAS:71-55-6

RTECS #:KJ2975000

Fraction by Wt: 95.0%

Other REC Limits:NONE RECOMMENDED

OSHA PEL:350 PPM

ACGIH TLV:350 PPM/450STEL;9596

EPA Rpt Qty:1000 LBS

DOT Rpt Qty:1000 LBS

Ozone Depleting Chemical:1

Ingred Name:1,3-DIOXOLANE

CAS:646-06-0

RTECS #:JH6760000

Fraction by Wt: 2.85%

Other REC Limits:NONE RECOMMENDED

Ingred Name:1,2-BUTYLENE OXIDE (SARA 313) (CERCLA)

CAS:106-88-7

RTECS #:EK3675000

Fraction by Wt: 0.47%

Other REC Limits:NONE RECOMMENDED

EPA Rpt Qty:1 LB

DOT Rpt Qty:1 LB

Ingred Name:NITROMETHANE

CAS:75-52-5

RTECS #:PA9800000

Fraction by Wt: 0.43%

Other REC Limits:NONE RECOMMENDED

OSHA PEL:100 PPM

ACGIH TLV:20 PPM; 9596

Ingred Name:SEC-BUTYL ALCOHOL (SARA 313)

CAS:78-92-2

RTECS #:EO1750000

Fraction by Wt: 1.22%

Other REC Limits:NONE RECOMMENDED

OSHA PEL:150 PPM

ACGIH TLV:100 PPM; 9596

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

LD50 LC50 Mixture:LD50 (ORAL, RAT) IS LIKELY >2,000 MG/KG.

Routes of Entry

: Inhalation:YES Skin:YES Ingestion:NO  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:TARGET ORGANS:LUNG, EYE, SKIN, CNS,  
HEART. ACUTE- EYE:CAUSES IRRITATION, PAIN. SKIN:IRRITATION,  
DEFATTING. PROLONGED CONTACT MAY RESULT IN ABSORPTION. INHALE:MAY  
CAUSE CNS EFFECTS, IRREGULAR HEARTBEAT S. CONCENTRATIONS AS LOW AS  
10,000 PPM CAN CAUSE DEATH. ORAL:HARMFUL IF INGESTED. CHRONIC-  
LIVER, KIDNEY, THYROID EFFECT

Explanation of Carcinogenicity:  
NONE

Effects of Overexposure:IRRITATION, NAUSEA, VOMITING, HEADACHE,  
DIZZINESS, SKIN DEFATTING AND CRACKING, WEAKNESS, LOW BLOOD  
PRESSURE, IRREGULAR HEARTBEATS, UNCONSCIOUSNESS, DEATH, PAIN

Medical 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 THE SUBSTANCE.

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

First Aid:GET MEDICAL ATTENTION IF SYMPTOMS PERSIST. EYES:IMMEDIATELY  
FLUSH WITH WATER FOR 15 MINUTES. HOLD EYELIDS OPEN. SKIN:WASH WITH  
SOAP & WATER. INHALED:REMOVE TO FRESH AIR. PROVIDE CPR/OXYGEN IF  
NECESSARY. ORAL:DO NOT INDUCE VOMITING. CALL PHYSICIAN  
IMMEDIATELY.

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

Flash Point Method:TCC  
Flash Point:NONE  
Lower Limits:7.5%  
Upper Limits:12.5%  
Extinguishing Media:WATER SPRAY, CARBON DIOXIDE, SAND, FOAM/DRY  
CHEMICAL. WATER SPRAY MAY BE USED TO KEEP FIRE EXPOSED CONTAINERS  
COOL.

Fire Fighting Procedures:WEAR FULL PROTECTIVE CLOTHING AND  
NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS WITH FULL  
FACEPIECE OPERATED IN POSITIVE PRESSURE MODE.

Unusual Fire/Explosion Hazard:MAY FORM TOXIC AND CORROSIVE GASES.  
VAPORS MAY DEVELOP A FLAMMABLE ATMOSPHERE IN CONFINED OR  
POORLY-VENTILATED AREAS.

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

Spill Release Procedures:REMOVE OPEN FLAMES.

VENTILATE AREA. ABSORB

SPILL WITH VERMICULITE OR OTHER INERT MATERIAL. PLACE IN A CONTAINER FOR CHEMICAL WASTE. WASH AREA WITH SOAPY WATER TO REMOVE RESIDUE. COLLECT WATER RINSES IN APPROPRIATE CONTAINER. DO NOT CONTAMINATE AREAS.

Neutralizing Agent:NOT RELEVANT

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

Handling and Storage Precautions:STORE IN COOL, DRY, VENTILATED PLACE AWAY FROM OPEN FLAMES, INCOMPATIBLE MATERIALS. LOOSEN CLOSURE CAUTIOUSLY

Other Precautions:AVOID BREATHING VAPORS. DO NOT GET IN EYES, ON SKIN OR ON CLOTHING. WASH THOROUGHLY AFTER HANDLING. KEEP OUT OF REACH OF CHILDREN. USE IN WELL VENTILATED AREA. FOR LABORATORY USE ONLY. DO NOT CUT OR WELD CONTAINER DUE TO EXPLOSION HAZARD.

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

Respiratory Protection:NONE NORMALLY REQUIRED. IF TLV IS EXCEEDED OR FOR SYMPTOMS OF OVER EXPOSURE, WEAR NIOSH-APPROVED ORGANIC VAPOR RESPIRATOR OR AIR

PURIFYING RESPIRATOR. IN EMERGENCY, WEAR A NIOSH-APPROVED POSITIVE-PRESSURE SELF-CONTAINED BREATHING APPARATUS.

Ventilation:USE GENERAL OR LOCAL EXHAUST VENTILATION TO MEET TLV REQUIREMENTS.

Protective Gloves:VITON, POLYVINYL ALCOHOL

Eye Protection:CHEMICAL SPLASH GOGGLES/SAFETY GLASSES

Other Protective Equipment:PROTECTIVE CLOTHING AS NEEDED TO PREVENT PROLONGED/REPEATED SKIN CONTACT, EYE WASH STATION AND SAFETY SHOWER.

Work Hygienic Practices:OBSERVE GOOD INDUSTRIAL HYGIENE PRACTICES AND

RECOMMENDED PROCEDURES. WASH THOROUGHLY BEFORE EATING, DRINKING/SMOKING.

Supplemental Safety and Health

DIFFERENT FORMULA. NOTE TO PHYSICIAN: CONTAINS CHLORINATED SOLVENT. INCREASED CARDIAC SENSITIVITY AND POSSIBLE ARRHYTHMIA MAY RESULT FROM OVEREXPOSURE. DO NOT ADMINISTER EPINEPHRINE OR OTHER STIMULATING DRUGS FOLLOWING OVEREXPOSURE UNLESS ABSOLUTELY NECESSARY. NO SPECIFIC ANTIDOTE. SUPPORTIVE CARE.

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

=====

HCC:T4

NRC/State Lic Num:NOT RELEVANT

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

Vapor Pres:100 @ 68F

Vapor Density:4.5

Spec Gravity:1.310

Solubility in Water:0.07% @ 25C/77F

Appearance and Odor:CLEAR, COLORLESS LIQUID - IRRITATING ODOR AT HIGH CONCENTRATIONS

Percent Volatiles by Volume:100

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

Stability Indicator/Materials to Avoid:YES

WATER, REACTIVE METALS (I.E., ALUMINUM, ZINC POWDER, POTASSIUM, SODIUM, ETC.)

Stab

Stability Condition to Avoid:OPEN FLAMES, ELECTRICAL ARCS, EXCESSIVE HEAT

Hazardous Decomposition Products:HYDROGEN CHLORIDE, CARBON MONOXIDE, CARBON DIOXIDE, PHOSGENE AND CHLORINE MAY BE FORMED.

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

Waste Disposal Methods:DISCHARGE, TREATMENT OR DISPOSAL IS SUBJECT TO FEDERAL, STATE OR LOCAL REGULATIONS. RECYCLING OR INCINERATION IS RECOMMENDED. CONTRACT WITH A LICENSED CHEMICAL DISPOSAL AGENCY. CONSIDERED A TOXIC

WASTE NUMBER U226 UNDER RCRA 40 CFR 261.33.RQ  
1000 LB

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.