

UNION CARBIDE CORP -- UCON FLUOROCARBON 12 -- 6830-00-935-9895  
===== Product Identification =====

Product ID:UCON FLUOROCARBON 12  
MSDS Date:11/01/1988  
FSC:6830  
NIIN:00-935-9895  
MSDS Number: BFYCV  
=== Responsible Party ===  
Company Name:UNION CARBIDE CORP  
Address:39 OLD RIDGEBURY RD  
City:DANBURY  
State:CT  
ZIP:06817-0001  
Country:US  
Info Phone Num:800-822-4357 OR 304-744-3487  
Emergency Phone Num:800-8  
22-4357 OR 304-744-3487  
CAGE:6M841  
=== Contractor Identification ===  
Company Name:UNION CARBIDE CORP  
Address:OLD RIDGEBURY RD  
Box:City:DANBURY  
State:CT  
ZIP:06817  
Country:US  
CAGE:6M841  
Company Name:UNION CARBIDE CORP LINDE DIV  
Address:39 OLD RIDGEBURY RD  
Box:City:DANBURY  
State:CT  
ZIP:06817-0001  
Country:US  
Phone:800-822-4357; 304-744-3487  
CAGE:36346

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

Ingred Name:DICHLORODIFLUOROMETHANE (SARA III)  
CAS:75-71-8  
RTECS #:PA8200000

Fraction by Wt: 100%  
OSHA PEL:1000 PPM  
ACGIH TLV:1000 PPM; 9192  
EPA Rpt Qty:5000 LBS  
DOT Rpt Qty:5000 LBS  
Ozone Depleting Chemical:1

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

LD50 LC50 Mixture:TLV 1000 PPM  
Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:FROSTBITE TO TISSUES UPON CONTACT WITH LIQUID. PRODUCT IS AN ASPHYXIANT. HIGH CONCENTRATIONS CAN CAUSE CENTRAL NERVOUS SYSTEM DISTURBANCES, SUFFOCATION, DEATH, CARDIAC ARRHYTHMIAS OR ARREST DUE TO SENSITIZATION OF HEART TO ADRENALIN. EXPOSURE TO DECOMPOSITION PRODUCTS MAY CAUSE FLU-LIKE SYMPTOMS.  
Explanation of Carcinogenicity:THIS COMPOUND CONTAINS NO INGREDIENTS AT CONCENTRATIONS OF 0.1% OR GREATER THAT ARE CARCINOGENS OR SUSPECT CARCINOGENS.  
Effects of Overexposure:FROSTBITE, SEVERE TISSUE DAMAGE TO EYES/SKIN/MUCOUS MEMBRANES, DIZZINESS, NAUSEA, VOMITING, DISORIENTATION, CONFUSION, INCOORDINATION, NARCOSIS, SUFFOCATION, DEATH, HEART IRREGULARITIES.  
Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

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

First Aid:SKIN: IMMEDIATELY WARM FROSTBITE AREA WITH WARM WATER. IN CASE OF MASSIVE EXPOSURE, REMOVE CLOTHING WHILE SHOWERING WITH WARM WATER. CALL A PHYSICIAN. INHALATION: REMOVE TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING. GIVE OXYGEN IF BREATHING IS DIFFICULT. CALL A PHYSICIAN. EYES: IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES. SEE PHYSICIAN IMMEDIATELY, AN OPHTHALMOLOGIST IF POSSIBLE.

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

Flash Point:NONFLAMMABLE  
Lower Limits:NOT GIVEN  
Upper Limits:NOT GIVEN  
Extinguishing Media:NONFLAMMABLE. USE MEDIA APPROPRIATE FOR SURROUNDING FIRE.  
Fire Fighting Procedures:EVACULATE ALL PERSONNEL FROM DANGER AREA. IMMEDIATELY DELUGE CONTAINERS WITH WATER SPRAY FROM MAXIMUM

DISTANCE UNTIL COOL, THEN MOVE CONTAINERS AWAY FROM FIRE.  
Unusual Fire/Explosion Hazard:CONTAINER MAY RUPTURE DUE TO HEAT OF  
FIRE. TOXIC FUMES MAY BE PRODUCED WHEN HEATED.

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

Spill Release Procedures:EVACUATE ALL PERSONNEL FORM DANGER AREA. USE  
SELF-CONTAINED BREATHING APPARATUS WHERE NEEDED. SHUT OFF LEAD IF  
POSSIBLE. VENTILATE AREA OR MOVE LEAKING CONTAINER TO WELL  
VENTILATED AREA. TEST FOR SUFF ICIENT OXYGEN  
BEFORE REENTRY.

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:STORE AND USE WITH ADEQUATE  
VENTILATION. USE ONLY IN A CLOSED SYSTEM. CLOSE CYLINDER VALVE WHEN  
NOT IN USE AND WHEN EMPTY. DO NOT SMOKE IN AREA.

Other Precautions:NEVER WORK ON A PRESSURIZED SYSTEM. IF THERE IS A  
LEAK, CLOSE THE CYLINDER VALVE, BLOW DOWN THE SYSTEM BY VENTING TO  
A SAFE PLACE, THEN REPAIR.

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

Respiratory Protection:IF VENTILATION DOES NOT MAINTAIN INHALATION  
EXOSURES BELOW PEL (TLV), USE NIOSH/MSHA APPROVED RESPIRATOR AS PER  
CURRENT 29 CFR 1910.134, INSTRUCTIONS/WARNINGS AND NIOSH RESPIRATOR  
SELECTION.

Ventilation:LOCAL EXHAUST PREFERRED. USE LOCAL EXHAUST TO MAINTAIN  
EXPOUSRE BELOW THE APPLICABLE LIMIT.

Protective Gloves:NEOPRENE

Eye Protection:SELECT IAW OSHA 29 CFR1910.133

Other Protective Equipment:ME

TATARSAL SHOES FOR CYLINDER HANDLING.

SELECT IAWW 29 CFR 1910.132 AND 1910.133.

Work Hygienic Practices:WASH WITH SOAP AND WATER AFTER HANDLING PRODUCT  
AND BEFORE EATING DRINKING OR SMOKING.

Supplemental Safety and Health

NOTE TO PHYSICIAN: DO NOT ADMINISTER ADRENALIN DUE TO THE SENSITIZING  
EFFECT OF FLUOROCARBONS ON THE MYCARDIUM. TREATMENT OF OVEREXPOSURE  
SHOULD BE DIRECTED AT THE CONTROL OF SYMPTOMS AND THE CLINICAL  
CONDITION.

===== Physical/Chemical Proper

ties =====

HCC:G3

Boiling Pt:B.P. Text:-22F,-30C

Melt/Freeze Pt:M.P/F.P Text:NOT GIVEN

Vapor Pres:70.2 PSIG

Vapor Density:4.2

Spec Gravity:1.486

Evaporation Rate & Reference:HIGH

Solubility in Water:NEGLIGIBLE

Appearance and Odor:COLORLESS GAS, ETHEREAL ODOR AT CONCENTRATIONS > 20%

Percent Volatiles by Volume:100 %

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

Stability Indicator/Materials to Avoid:YES

MAGNESIUM AND ITS ALLOYS CONTAINING > 2% MAGNESIUM IN THE PRESENCE OF

WATER, NATURAL RUBBER, ALUMINUM.

Stability Condition to Avoid:ELEVATED TEMPERATURES

Hazardous Decomposition Products:HYDROGEN CHLORIDE, HYDROGEN FLUORIDE, CARBON MONOXIDE, CARBON DIOXIDE.

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

Waste Disposal Methods:PREVENT WASTE FROM CONTAMINATING SURROUNDING ENVIRONMENT. DISCARD ANY PRODUCT, RESIDUE, DISPOSAL CONTAINER OR LINER IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.

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