

HAZARDAL SAFETY DATA SHEET

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Database Version May 01, 1996

SECTION 1. - - - - - CHEMICAL IDENTIFICATION- - - - -

CATALOG #: 48541
 NAME: TRICHLOROFLUOROMETHANE NEAT
 STANDARD FOR
 EPA METHODS

SECTION 2. - - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - -

CAS #: 75-69-4
 EC NO: 200-892-3

SYNONYMS

ALGOFRENE TYPE 1 * ARCTON 9 * ELECTRO-CF 11 * ESKIMON 11 * F 11 * FC
 11 * FLUOROCARBON NO. 11 * FLUOROTRICHLOROMETHANE (OSHA) *
 FLUOROTROJCHLOROMETAN (POLISH) * FREON 11 * FREON 11A * FREON 11B *
 FREON HE * FREON MF * FRIGEN 11 * GENETRON 11 * HALOCARBON 11 *
 ISCEON 131 * ISOTRON 11 * LEDON 11 * METHANE, FLUOROTRICHLO- *
 MONOFLUOROTRICHLOROMETHANE * NCI-C04637 * REFRIGERANT 11 *
 TRICHLOROFLUOROMETHANE (ACGIH:OSHA) * TRICHLOROMONOFUOROMETHANE *
 UCON FLUROCARBON 11 * UCON REFRIGERANT 11 *

SECTION 3. - - - - - HAZARDS IDENTIFICATION - - - - -

LABEL PRECAUTIONARY STATEMENTS

IRRITANT
 IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.
 TARGET ORGAN(S):
 HEART
 LUNGS
 IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF
 WATER AND SEEK MEDICAL ADVICE.
 WEAR SUITABLE PROTECTIVE CLOTHING.
 DO NOT BREATHE VAPOR.

SECTION 4. - - - - - FIRST-AID MEASURES- - - - -

IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES WITH COPIOUS AMOUNTS OF
 WATER FOR AT LEAST 15 MINUTES.
 IN CASE OF CONTACT, IMMEDIATELY WASH SKIN WITH SOAP AND COPIOUS
 AMOUNTS OF WATER.
 IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL
 RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
 IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS.
 CALL A PHYSICIAN.
 WASH CONTAMINATED CLOTHING BEFORE REUSE.

SECTION 5. - - - - - FIRE FIGHTING MEASURES - - - - -

EXTINGUISHING MEDIA

APPROPRIATE FOAM.
 USE WATER SPRAY OR FOG NOZZLE TO KEEP CYLINDER COOL. MOVE CYLINDER
 AWAY FROM FIRE IF THERE IS NO RISK.

SPECIAL FIREFIGHTING PROCEDURES

WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO
 PREVENT CONTACT WITH SKIN AND EYES.

USUAL FIRE AND EXPLOSIONS HAZARDS

EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

SECTION 6. - - - - - ACCIDENTAL RELEASE MEASURES- - - - -

SHUT OFF ALL SOURCES OF IGNITION.
 EVACUATE AREA AND KEEP PERSONNEL UPWIND.
 WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY

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RUBBER GLOVES.

COVER WITH DRY LIME OR SODA ASH, PICK UP, KEEP IN A CLOSED CONTAINER AND HOLD FOR WASTE DISPOSAL.

VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

SECTION 7. - - - - - HANDLING AND STORAGE- - - - -

REFER TO SECTION 8.

ADDITIONAL INFORMATION

INCOMPATIBLE WITH: COPPER, BRONZE, SILVER, BERYLLIUM, ALKALI AND ALKALINE EARTH METALS.

SECTION 8. - - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION- - - - -

CHEMICAL SAFETY GOGGLES.

COMPATIBLE CHEMICAL-RESISTANT GLOVES.

NIOSH/MSHA-APPROVED RESPIRATOR.

MECHANICAL EXHAUST REQUIRED.

SAFETY SHOWER AND EYE BATH.

AVOID BREATHING VAPOR.

DO NOT GET IN EYES, ON SKIN, ON CLOTHING.

AVOID CONTACT AND INHALATION.

WASH THOROUGHLY AFTER HANDLING.

IRRITANT.

KEEP TIGHTLY CLOSED.

SECTION 9. - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - -

APPEARANCE AND ODOR

LIQUID.

PHYSICAL PROPERTIES

BOILING POINT: 23.7 C

MELTING POINT: -111 C

SECTION 10. - - - - - STABILITY AND REACTIVITY - - - - -

STABILITY

STABLE.

INCOMPATIBILITIES

STRONG OXIDIZING AGENTS

REACTS WITH:

SODIUM

POTASSIUM

MAGNESIUM

ALUMINUM

ZINC

STORE AWAY FROM HEAT AND DIRECT SUNLIGHT.

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS

TOXIC FUMES OF:

CARBON MONOXIDE, CARBON DIOXIDE

HYDROGEN CHLORIDE GAS

PHOSGENE GAS

HYDROGEN FLUORIDE

HAZARDOUS POLYMERIZATION

WILL NOT OCCUR.

SECTION 11. - - - - - TOXICOLOGICAL INFORMATION - - - - -

ACUTE EFFECTS

MAY BE HARMFUL BY INHALATION, INGESTION, OR SKIN ABSORPTION.

VAPOR OR MIST IS IRRITATING TO THE EYES, MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT.

CAUSES SKIN IRRITATION.

CAN CAUSE RAPID SUFFOCATION.

PROLONGED OR REPEATED EXPOSURE TO SKIN CAUSES DEFATTING AND DERMATITIS.

EXPOSURE CAN CAUSE:

NAUSEA, DIZZINESS AND HEADACHE

STOMACH PAINS, VOMITING, DIARRHEA.

MAY CAUSE NERVOUS SYSTEM DISTURBANCES.

WEAKNESS

UNCONSCIOUSNESS

TARGET ORGAN(S):

HEART

LUNGS

LIVER

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

ADDITIONAL INFORMATION

EXPOSURE TO HIGH CONCENTRATIONS OF VAPOR MAY CAUSE LIGHT-HEADEDNESS, DISORIENTATION, NAUSEA, VOMITING, NARCOSIS, CARDIAC DYSRHYTHMIAS, HYPOTENSION AND DEATH. THE CARDIAC DYSRHYTHMIAS ARE POTENTIALLY LETHAL BECAUSE OF SENSITIZATION OF MYOCARDIUM TO ENDOGENOUS EPINEPHRINE.

RTECS #: PB6125000

METHANE, TRICHLOROFLUORO-
TOXICITY DATA

IHL-RAT LC50:13 PPH/15M	HUTODJ 1,239,82
IHL-MUS LC50:10 PPH/30M	EJTXAZ 9,385,76
IPR-MUS LD50:1743 MG/KG	TOIZAG 18,363,71
IHL-RBT LC50:25 PPH/30M	EJTXAZ 9,385,76
IHL-GPG LC50:25 PPH/30M	EJTXAZ 9,385,76

TARGET ORGAN DATA

BEHAVIORAL (CONVULSIONS OR EFFECT ON SEIZURE THRESHOLD)
ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES (RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR COMPLETE INFORMATION.

SECTION 12. - - - - - ECOLOGICAL INFORMATION - - - - -
DATA NOT YET AVAILABLE.

SECTION 13. - - - - - DISPOSAL CONSIDERATIONS - - - - -
DISSOLVE OR MIX THE MATERIAL WITH A COMBUSTIBLE SOLVENT AND BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER. OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

SECTION 14. - - - - - TRANSPORT INFORMATION - - - - -
CONTACT SIGMA CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.

SECTION 15. - - - - - REGULATORY INFORMATION - - - - -

EUROPEAN INFORMATION

IRRITANT

R 36/37/38

IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.

S 26

IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.

S 36

WEAR SUITABLE PROTECTIVE CLOTHING.

S 23

DO NOT BREATHE VAPOR.

REVIEWS, STANDARDS, AND REGULATIONS

OEL=MAK

ACGIH TLV-CL 1000 PPM 85INA8 6,1619,91

EPA FIFRA 1988 PESTICIDE SUBJECT TO REGISTRATION OR RE-REGISTRATION

FEREAC 54,7740,89

MSHA STANDARD-AIR:TWA 1000 PPM (5600 MG/M3)

DTLVS* 3,118,71

OSHA PEL (GEN INDU):8H TWA 1000 PPM (5600 MG/M3)

CFRGBR 29,1910.1000,94

OSHA PEL (CONSTRUC):8H TWA 1000 PPM (5600 MG/M3)

CFRGBR 29,1926.55,94

OSHA PEL (SHIPYARD):8H TWA 1000 PPM (5600 MG/M3)

CFRGBR 29,1915.1000,93

OSHA PEL (FED CONT):8H TWA 1000 PPM (5600 MG/M3)

CFRGBR 41,50-204.50,94

OEL-AUSTRALIA:TWA 1000 PPM (5600 MG/M3) JAN93

OEL-BELGIUM:STEL 1000 PPM (5620 MG/M3) JAN93

OEL-DENMARK:TWA 1000 PPM (5600 MG/M3) JAN93

OEL-FINLAND:TWA 1000 PPM (5600 MG/M3);STEL 1250 PPM (7000 MG/M3) JAN93

OEL-FRANCE:TWA 1000 PPM (5600 MG/M3) JAN93

OEL-GERMANY:TWA 1000 PPM (5600 MG/M3) JAN93

OEL-HUNGARY:STEL 40 MG/M3 JAN93

OEL-JAPAN:STEL 1000 PPM (5600 MG/M3) JAN93

OEL-THE NETHERLANDS:TWA 1000 PPM (5600 MG/M3) JAN93

OEL-THE PHILIPPINES:TWA 1000 PPM (5600 MG/M3) JAN93

OEL-POLAND:TWA 500 MG/M3 JAN93

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OEL-RUSSIA:STEL 1000 PPM (1000 MG/M3) JAN93
OEL-SWEDEN:TWA 500 PPM (3000 MG/M3);STEL 750 PPM (4500 MG/M3) JAN93
OEL-SWITZERLAND:TWA 1000 PPM (5600 MG/M3) JAN93
OEL-TURKEY:TWA 1000 PPM (5600 MG/M3) JAN93
OEL-UNITED KINGDOM:TWA 1000 PPM (5600 MG/M3);STEL 1250 PPM JAN93
- OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA CHECK ACGIH TLV
- OEL IN NEW ZEALAND, SINGAPORE, VIETNAM CHECK ACGIH TLV
NIOSH REL TO FLUOROTRICHLOROMETHANE-AIR:CL 1000 PPM

NIOSH* DHHS #92-100,92
NOHS 1974: HZD 33565; NIS 304; TNF 68187; NOS 173; TNE 785337
NOES 1983: HZD 33565; NIS 142; TNF 15107; NOS 119; TNE 267742; TFE -
95886

EPA TSCA SECTION 8(B) CHEMICAL INVENTORY
ON EPA IRIS DATABASE

EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, OCTOBER 1995
NIOSH ANALYTICAL METHOD, 1994: FLUOROTRICHLOROMETHANE, 1006
NIOSH ANALYTICAL METHOD, 1994: TRICHLOROFLUOROMETHANE, 1006
NCI CARCINOGENESIS BIOASSAY (GAVAGE);NO EVIDENCE:MOUSE
NCITR* NCI-TR-106,78
NCI CARCINOGENESIS BIOASSAY (GAVAGE);INADEQUATE STUDIES:RAT
NCITR* NCI-TR-106,78

U.S. INFORMATION

THIS PRODUCT IS SUBJECT TO SARA SECTION 313 REPORTING REQUIREMENTS.
SECTION 16. - - - - - OTHER INFORMATION- - - - -
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