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# SAFETY DATA SHEET

# SECTION 1. CHEMICAL IDENTIFICATION

CATALOG #: 46334

NAME: 1-Fluoro-3-(trifluoromethoxy)benzene

SYNONYMS:

24 HOUR EMERGENCY

TELEPHONE:

(800) 535-5053(USA)

352-323-3500 (INTERNATIONAL)

TO REQUEST AN MSDS: (800) 869-9290

CUSTOMER SERVICE:

(630) 766-2112

# SECTION 2. HAZARDS IDENTIFICATION

# CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

GHS CLASSIFICATION IN ACCORDANCE WITH 29 CFR 1910 (OSHA HCS) FLAMMABLE LIQUIDS (CATEGORY 2), H225 SKIN CORROSION/IRRITATION (CATEGORY 2), H315 EYE DAMAGE/IRRITATION (CATEGORY 2A), H319

FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE SECTION 16.

# GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS

**PICTOGRAM** 



SIGNAL WORD **DANGER** 

**HAZARD STATEMENT(S)** 

H225 HIGHLY FLAMMABLE LIQUID AND VAPOR.

H315 CAUSES SKIN IRRITATION.

H319 CAUSES SERIOUS EYE IRRITATION.

PRECAUTIONARY STATEMENT(S)

KEEP AWAY FROM HEAT/SPARKS/OPEN P210

FLAMES/HOT SURFACES. NO SMOKING.

P233 KEEP CONTAINER TIGHTLY CLOSED.

P240 GROUND/BOND CONTAINER AND RECEIVING

EQUIPMENT.

P241 USE EXPLOSION-PROOF ELECTRICAL/

VENTILATING/ LIGHTING/ EQUIPMENT.

P242 USE ONLY NON-SPARKING TOOLS.

P243 TAKE PRECAUTIONARY MEASURES AGAINST

STATIC DISCHARGE.

P264 WASH SKIN THOROUGHLY AFTER HANDLING. P280

WEAR PROTECTIVE GLOVES/ EYE PROTECTION/

FACE PROTECTION.

P303 + P361 + P353 IF ON SKIN (OR HAIR): TAKE OFF IMMEDIATELY

ALL CONTAMINATED CLOTHING. RINSE SKIN WITH

WATER/SHOWER.

IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR P305 + P351 + P338

SEVERAL MINUTES. REMOVE CONTACT LENSES. IF

PRESENT AND EASY TO DO. CONTINUE RINSING.

P332 + P313IF SKIN IRRITATION OCCURS: GET MEDICAL

ADVICE/ ATTENTION.

IF EYE IRRITATION PERSISTS: GET MEDICAL P337 + P313

ADVICE/ ATTENTION.

P362 TAKE OFF CONTAMINATED CLOTHING AND WASH

BEFORE REUSE.

P370 + P378IN CASE OF FIRE: USE DRY SAND, DRY CHEMICAL

OR ALCOHOL-RESISTANT FOAM TO EXTINGUISH.

P403 + P235STORE IN A WELL-VENTILATED PLACE. KEEP COOL.

P501 DISPOSE OF CONTENTS/ CONTAINER TO AN

APPROVED WASTE DISPOSAL PLANT.

HAZARDS NOT OTHERWISE NONE

CLASSIFIED (HNOC) OR NOT COVERED BY GHS

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MF:  $C_7H_4F_4O$ 

MW: 180.10

CAS-NO. 1077-01-6

PURITY:  $\geq$  98% (GC)

## **HAZARDOUS COMPONENTS**

COMPONENT	CLASSIFICATION	CONCENTRATION
1-Fluoro-3-(trifluoromethoxy)benzene		
	-	-

FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE SECTION 16.

# SECTION 4. FIRST-AID MEASURES

# **DESCRIPTION OF FIRST AID MEASURES**

**GENERAL ADVICE** CONSULT A PHYSICIAN. SHOW THIS SAFETY DATA

SHEET TO THE DOCTOR IN ATTENDANCE.MOVE OUT

OF DANGEROUS AREA.

IF INHALED REMOVE VICTIM TO FRESH AIR AND KEEP AT REST IN A

> POSITION COMFORTABLE FOR BREATHING. GET MEDICAL ADVICE/ATTENTION IF YOU FEEL UNWELL.

REMOVE/TAKE OFF IMMEDIATELY ALL IN CASE OF SKIN

**CONTACT** CONTAMINATED CLOTHING. GENTLY WASH WITH

PLENTY OF SOAP AND WATER. IF SKIN IRRITATION OR RASH OCCURS: GET MEDICAL ADVICE/ATTENTION.

IN CASE OF EYE RINSE CAUTIOUSLY WITH WATER FOR SEVERAL

MINUTES. REMOVE CONTACT LENSES, IF PRESENT **CONTACT** 

AND EASY TO DO. CONTINUE RINSING. IF EYE

IRRITATION PERSISTS: GET MEDICAL

ADVICE/ATTENTION.

IF SWALLOWED GET MEDICAL ADVICE/ATTENTION IF YOU FEEL

UNWELL. RINSE MOUTH.

**MOST IMPORTANT** ACUTE: REDNESS.

**SYMPTOMS AND** 

THE MOST IMPORTANT KNOWN SYMPTOMS AND EFFECTS, BOTH ACUTE EFFECTS ARE DESCRIBED IN THE LABELLING (SEE

AND DELAYED SECTION 2.2) AND/OR IN SECTION 11 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED NO DATA AVAILABLE

# **SECTION 5. FIRE AND EXPLOSION DATA**

# **EXTINGUISHING MEDIA**

**SUITABLE** SUITABLE EXTINGUISHING MEDIA:

**EXTINGUISHING MEDIA** DRY CHEMICAL, FOAM, WATER SPRAY, CARBON

DIOXIDE.

UNSUITABLE EXTINGUISHING MEDIA:

SOLID STREAMS OF WATER

SPECIAL HAZARDS ARISING FROM THE

SUBSTANCE OR MIXTURE

CARBON OXIDES HALOGENATED COMPOUNDS

ADVICE FOR FIREFIGHTERS

WEAR SELF-CONTAINED BREATHING APPARATUS IF

POSSIBLE.

**FURTHER INFORMATION** WARNING:

WARNING: HIGHLY TOXIC HCL GAS IS PRODUCED

DURING COMBUSTION.

TAKE CARE AS IT MAY DECOMPOSE UPON COMBUSTION OR IN HIGH TEMPERATURES TO

GENERATE POISONOUS FUME.

# SECTION 6. ACCIDENTAL RELEASE MEASURES

PERSONAL
PRECAUTIONS,
PROTECTIVE
EQUIPMENT AND
EMERGENCY
PROCEDURES

USE EXTRA PERSONAL PROTECTIVE EQUIPMENT (SELF-CONTAINED BREATHING APPARATUS). KEEP PEOPLE AWAY FROM AND UPWIND OF SPILL/LEAK. ENSURE ADEQUATE VENTILATION. ENTRY TO NON-INVOLVED PERSONNEL SHOULD BE CONTROLLED AROUND THE LEAKAGE AREA BY ROPING OFF, ETC.

ENVIRONMENTAL PRECAUTIONS

PREVENT PRODUCT FROM ENTERING DRAINS.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP ABSORB SPILLED MATERIAL IN A SUITABLE ABSORBENT (E.G. RAG, DRY SAND, EARTH, SAWDUST). IN CASE OF LARGE AMOUNT OF SPILLAGE, CONTAIN A SPILL BY BUNDING. ADHERED OR COLLECTED MATERIAL SHOULD BE PROMPTLY

DISPOSED OF, IN ACCORDANCE WITH APPROPRIATE

LAWS AND REGULATIONS.

REFERENCE TO OTHER SECTIONS

FOR DISPOSAL SEE SECTION 13.

# SECTION 7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE

HANDLING

HANDLING IS PERFORMED IN A WELL VENTILATED PLACE. WEAR SUITABLE PROTECTIVE EQUIPMENT. PREVENT GENERATION OF VAPOUR OR MIST. WASH HANDS AND FACE THOROUGHLY AFTER HANDLING. USE A VENTILATION, LOCAL EXHAUST IF VAPOUR OR

AEROSOL WILL BE GENERATED.

AVOID CONTACT WITH SKIN, EYES AND CLOTHING.

CONDITIONS FOR SAFE

STORAGE, INCLUDING ANY INCOMPATIBILITIES KEEP CONTAINER TIGHTLY CLOSED. STORE IN A COOL

AND DARK PLACE.

STORE AWAY FROM INCOMPATIBLE MATERIALS SUCH

AS OXIDIZING AGENTS.

Store at 2 - 8 °C

**SPECIFIC END USE(S)** 

APART FROM THE USES MENTIONED IN SECTION 1.2

NO OTHER SPECIFIC USES ARE STIPULATED

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

# **CONTROL PARAMETERS**

## COMPONENTS WITH WORKPLACE CONTROL PARAMETERS

CONTAINS NO SUBSTANCES WITH OCCUPATIONAL EXPOSURE LIMIT VALUES.

## **EXPOSURE CONTROLS**

**APPROPRIATE** FOLLOW SAFE INDUSTRIAL

ENGINEERINGENGINEERING/LABORATORY PRACTICES WHENCONTROLSHANDLING ANY CHEMICAL. INSTALL A CLOSED

SYSTEM OR LOCAL EXHAUST, ALSO INSTALL SAFETY

SHOWER AND EYE BATH.

# PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE PROTECTION FACE SHIELD AND SAFETY GLASSES USE EQUIPMENT

FOR EYE PROTECTION TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS

NIOSH (US) OR EN 166(EU).

**SKIN PROTECTION** HANDLE WITH GLOVES. GLOVES MUST BE INSPECTED

PRIOR TO USE. USE PROPER GLOVE REMOVAL

TECHNIQUE (WITHOUT TOUCHING GLOVE"S OUTER

SURFACE) TO AVOID SKIN CONTACT WITH THIS

PRODUCT. DISPOSE OF CONTAMINATED GLOVES AFTER USE IN ACCORDANCE WITH APPLICABLE LAWS AND GOOD LABORATORY PRACTICES. WASH AND DRY

HANDS.

**BODY PROTECTION** COMPLETE SUIT PROTECTING AGAINST CHEMICALS,

FLAME RETARDANT PROTECTIVE CLOTHING, AND THE TYPE OF PROTECTIVE EQUIPMENT MUST BE SELECTED ACCORDING TO THE CONCENTRATION AND AMOUNT OF THE DANGEROUS SUBSTANCE AT THE SPECIFIC

WORKPLACE.

**RESPIRATORY** VAPOR RESPIRATOR. FOLLOW LOCAL AND NATIONAL

**PROTECTION** REGULATIONS.

CONTROL OF ENVIRONMENTAL

**EXPOSURE** 

DO NOT LET PRODUCT ENTER DRAINS.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

# INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE Colorless to almost colorless clear liquid

ODOUR NO DATA AVAILABLE
ODOUR THRESHOLD NO DATA AVAILABLE
PH NO DATA AVAILABLE

**MELTING** 

POINT/FREEZING POINT

BOILING POINT 105 °C FLASH POINT 8 °C

EVAPOURATION RATE NO DATA AVAILABLE FLAMMABILITY (SOLID, NO DATA AVAILABLE

GAS)

UPPER/LOWER NO DATA AVAILABLE

FLAMMABILITY OR EXPLOSIVE LIMITS

VAPOUR PRESSURE NO DATA AVAILABLE VAPOUR DENSITY NO DATA AVAILABLE

RELATIVE DENSITY 1.33

WATER SOLUBILITY NO DATA AVAILABLE PARTITION COEFFICIENT: NO DATA AVAILABLE

N- OCTANOL/WATER

AUTO-IGNITION NO DATA AVAILABLE

TEMPERATURE

DECOMPOSITION NO DATA AVAILABLE

TEMPERATURE

VISCOSITY NO DATA AVAILABLE EXPLOSIVE PROPERTIES NO DATA AVAILABLE OXIDIZING PROPERTIES NO DATA AVAILABLE

## OTHER SAFETY INFORMATION

NO DATA AVAILABLE

# SECTION 10. STABILITY AND REACTIVITY

**REACTIVITY** NO DATA AVAILABLE

CHEMICAL STABILITY STABLE UNDER RECOMMENDED STORAGE

CONDITIONS.

POSSIBILITY OF HAZARDOUS

HAZARDOUS

REACTIONS

INCOMPATIBLE MATERIALS

**CONDITIONS TO AVOID** 

OXIDIZING AGENTS

HAZARDOUS

DECOMPOSITION

**PRODUCTS** 

CARBON DIOXIDE, CARBON MONOXIDE, HYDROGEN

NO SPECIAL REACTIVITY HAS BEEN REPORTED.

SPARK, OPEN FLAME, STATIC DISCHARGE

**FLUORIDE** 

# SECTION 11. TOXICOLOGICAL INFORMATION

# INFORMATION ON TOXICOLOGICAL EFFECTS

ACUTE TOXICITY NO DATA AVAILABLE

INHALATION: NO DATA AVAILABLE

DERMAL: NO DATA AVAILABLE

NO DATA AVAILABLE

**SKIN** NO DATA AVAILABLE

CORROSION/IRRITATION

SERIOUS EYE NO DATA AVAILABLE

DAMAGE/EYE IRRITATION

**RESPIRATORY OR SKIN** NO DATA AVAILABLE

SENSITISATION

GERM CELL MUTAGENICITY NO DATA AVAILABLE

**CARCINOGENICITY** 

IARC: NO COMPONENT OF THIS PRODUCT PRESENT AT

LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS PROBABLE, POSSIBLE OR CONFIRMED HUMAN CARCINOGEN BY IARC.

NTP: NO COMPONENT OF THIS PRODUCT PRESENT AT

LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS A KNOWN OR ANTICIPATED

CARCINOGEN BY NTP.

OSHA: NO COMPONENT OF THIS PRODUCT PRESENT AT

LEVELS GREATER THAN OR EQUAL TO 0.1% IS ON OSHA'S LIST OF REGULATED CARCINOGENS.

REPRODUCTIVE TOXICITY NO DATA AVAILABLE

**SPECIFIC TARGET ORGAN** 

**TOXICITY - SINGLE** 

**EXPOSURE** 

NO DATA AVAILABLE

SPECIFIC TARGET ORGAN

TOXICITY - REPEATED

**EXPOSURE** 

NO DATA AVAILABLE

**ASPIRATION HAZARD** NO DATA AVAILABLE

ADDITIONAL INFORMATION

RTECS: NOT AVAILABLE

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE

NOT BEEN THOROUGHLY INVESTIGATED.

# SECTION 12. ECOLOGICAL INFORMATION

**TOXICITY** NO DATA AVAILABLE

PERSISTENCE AND DEGRADABILITY

NO DATA AVAILABLE

**BIOACCUMULATIVE** 

**POTENTIAL** 

NO DATA AVAILABLE

MOBILITY IN SOIL NO DATA AVAILABLE

RESULTS OF PBT AND VPVB ASSESSMENT NO DATA AVAILABLE

## OTHER ADVERSE EFFECTS NO DATA AVAILABLE

#### SECTION 13. DISPOSAL CONSIDERATIONS

#### WASTE TREATMENT METHODS

**PRODUCT** RECYCLE TO PROCESS IF POSSIBLE. IT IS THE

GENERATOR"S RESPONSIBILITY TO COMPLY WITH

FEDERAL, STATE AND LOCAL RULES AND

REGULATIONS. YOU MAY BE ABLE TO DISSOLVE OR MIX MATERIAL WITH A COMBUSTIBLE SOLVENT AND BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER SYSTEM. THIS SECTION IS INTENDED TO PROVIDE ASSISTANCE BUT

DOES NOT REPLACE THESE LAWS, NOR DOES

COMPLIANCE IN ACCORDANCE WITH THIS SECTION ENSURE REGULATORY COMPLIANCE ACCORDING TO THE LAW. THE PRODUCT SHOULD NOT BE ALLOWED TO ENTER THE ENVIRONMENT, DRAINS, WATER WAYS, OR

THE SOIL.

CONTAMINATED PACKAGING

DISPOSE OF AS UNUSED PRODUCT. DO NOT RE-USE

EMPTY CONTAINERS.

## SECTION 14. TRANSPORT INFORMATION

DOT (US)

PROPER SHIPPING NAME: FLAMMABLE LIQUIDS, N.O.S. (1-Fluoro-3-

(trifluoromethoxy)benzene)

UN NUMBER: 1993 CLASS: 3 PACKING GROUP: II

**IMDG** 

PROPER SHIPPING NAME: FLAMMABLE LIQUIDS, N.O.S. (1-Fluoro-3-

(trifluoromethoxy)benzene)

UN NUMBER: 1993 CLASS: 3 PACKING GROUP: II EMS-NO: F-E, S-E

**IATA** 

PROPER SHIPPING NAME: FLAMMABLE LIQUIDS, N.O.S. (1-Fluoro-3-

(trifluoromethoxy)benzene)

UN NUMBER: 1993 CLASS: 3 PACKING GROUP:

II

# SECTION 15. REGULATORY INFORMATION

SARA 302 COMPONENTS NO CHEMICALS IN THIS MATERIAL ARE SUBJECT TO

THE REPORTING REQUIREMENTS OF SARA TITLE III,

SECTION 302.

SARA 313 COMPONENTS THIS MATERIAL DOES NOT CONTAIN ANY CHEMICAL

COMPONENTS WITH KNOWN CAS NUMBERS THAT EXCEED THE THRESHOLD (DE MINIMIS) REPORTING LEVELS ESTABLISHED BY SARA TITLE III, SECTION 313.

MASSACHUSETTS RIGHT TO KNOW COMPONENTS

CAS-NO. REVISION DATE

1-Fluoro-3- 1077-01-6

(trifluoromethoxy)benzene

PENNSYLVANIA RIGHT TO KNOW COMPONENTS

CAS-NO. REVISION DATE

1-Fluoro-3- 1077-01-6

(trifluoromethoxy)benzene

NEW JERSEY RIGHT TO KNOW COMPONENTS

CAS-NO. REVISION DATE

1-Fluoro-3- 1077-01-6

(trifluoromethoxy)benzene

# SECTION 16. OTHER INFORMATION

# FULL TEXT OF H-STATEMENTS REFERRED TO UNDER SECTIONS 2 AND 3.

H225 HIGHLY FLAMMABLE LIQUID AND VAPOR.

H315 CAUSES SKIN IRRITATION.

H319 CAUSES SERIOUS EYE IRRITATION.

# MSDS LEGEND

MW: MOLECULAR WEIGHT MF: MOLECULAR FORMULA

VOC: VOLATILE ORGANIC COMPOUNDS

ACGIH: AMERICAN CONFERENCE OF GOVERNMENENTAL INDUSTRIAL

**HYGINISTS** 

CAS: CHEMICAL ABSTRACTS SERIVE REGISTRY NUMBER
OSHA: OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

PEL: PERMISSIBLE EXPOSURE LIMIT (OSHA) TLV: THRESHOLD LIMIT VALUE (ACGIH)

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