



chemists helping chemists in research & industry

**aldrich chemical co.**

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M A T E R I A L   S A F E T Y   D A T A   S H E E T   PAGE: 1

IDENTIFICATION

PRODUCT # 10623-2      NAME: TRIFLUOROACETIC ANHYDRIDE, 99+%  
CAS # 407-25-0  
MF: C4F6O3

SYNONYMS

ANHYDRID KYSELINY TRIFLUOROCTOVE (CZECH) \* BIS(TRIFLUOROACETIC)  
ANHYDRIDE \* HEXAFLUOROACETIC ANHYDRIDE \* PERFLUOROACETIC ANHYDRIDE \*  
TRIFLUOROACETIC ACID ANHYDRIDE \* TRIFLUOROACETIC ANHYDRIDE \*  
TRIFLUOROACETYL ANHYDRIDE \*

TOXICITY HAZARDS

RTECS # AJ9300000  
ACETIC ACID, TRIFLUORO-, ANHYDRIDE

IRRITATION DATA

SKN-RBT 750 UG/24H SEV  
EYE-RBT 5 MG/24H SEV

85JCAE -,575,86  
85JCAE -,575,86

REVIEWS, STANDARDS, AND REGULATIONS  
EPA TSCA CHEMICAL INVENTORY, 1986

ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES (RTECS)  
DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR COMPLETE INFORMATION.

HEALTH HAZARD DATA

ACUTE EFFECTS

HARMFUL IF SWALLOWED, INHALED, OR ABSORBED THROUGH SKIN.  
MATERIAL IS EXTREMELY DESTRUCTIVE TO TISSUE OF THE MUCOUS MEMBRANES  
AND UPPER RESPIRATORY TRACT, EYES AND SKIN.  
INHALATION MAY BE FATAL AS A RESULT OF SPASM, INFLAMMATION AND EDEMA  
OF THE LARYNX AND BRONCHI, CHEMICAL PNEUMONITIS AND PULMONARY EDEMA.  
SYMPTOMS OF EXPOSURE MAY INCLUDE BURNING SENSATION, COUGHING,  
WHEEZING, LARYNGITIS, SHORTNESS OF BREATH, HEADACHE, NAUSEA AND  
VOMITING.

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

FIRST AID

IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES OR SKIN WITH COPIOUS  
AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED  
CLOTHING AND SHOES.  
ASSURE ADEQUATE FLUSHING OF THE EYES BY SEPARATING THE EYELIDS  
WITH FINGERS.  
IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL  
RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.  
CALL A PHYSICIAN.  
WASH CONTAMINATED CLOTHING BEFORE REUSE.  
DISCARD CONTAMINATED SHOES.

PHYSICAL DATA

MELTING POINT: -65 C  
BOILING POINT: 39.5 C TO 40 C  
SPECIFIC GRAVITY: 1.487  
VAPOR PRESSURE: 400.0 MM @ 21.1 C

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CATALOG # 10623-2

NAME: TRIFLUOROACETIC ANHYDRIDE, 99+%

APPEARANCE: COLORLESS LIQUID

----- FIRE AND EXPLOSION HAZARD DATA -----

FLASH POINT: NONE  
EXTINGUISHING MEDIA  
CARBON DIOXIDE, DRY CHEMICAL POWDER, ALCOHOL OR POLYMER FOAM.  
SPECIAL FIRE FIGHTING PROCEDURES  
WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO  
PREVENT CONTACT WITH SKIN AND EYES.  
UNUSUAL FIRE AND EXPLOSION HAZARDS  
EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

----- REACTIVITY DATA -----

INCOMPATIBILITIES  
STRONG OXIDIZING AGENTS  
STRONG ACIDS  
STRONG BASES  
ALCOHOLS  
DO NOT ALLOW WATER TO ENTER CONTAINER BECAUSE OF VIOLENT REACTION.  
HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS  
TOXIC FUMES OF:  
CARBON MONOXIDE, CARBON DIOXIDE  
HYDROGEN FLUORIDE

----- SPILL OR LEAK PROCEDURES -----

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED  
EVACUATE AREA.  
WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY  
RUBBER GLOVES.  
ABSORB ON SAND OR VERMICULITE AND PLACE IN CLOSED CONTAINERS FOR  
DISPOSAL.  
VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.  
WASTE DISPOSAL METHOD  
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 & LOCAL LAWS.

--- PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE ---

WEAR APPROPRIATE NIOSH/MSHA-APPROVED RESPIRATOR, CHEMICAL-RESISTANT  
GLOVES, SAFETY GOGGLES, OTHER PROTECTIVE CLOTHING.  
SAFETY SHOWER AND EYE BATH.  
USE ONLY IN A CHEMICAL FUME HOOD.  
FACESHIELD (8-INCH MINIMUM).  
DO NOT BREATHE VAPOR.  
DO NOT GET IN EYES, ON SKIN, ON CLOTHING.  
AVOID PROLONGED OR REPEATED EXPOSURE.  
WASH THOROUGHLY AFTER HANDLING.  
CORROSIVE.  
KEEP TIGHTLY CLOSED.  
MOISTURE SENSITIVE  
STORE IN A COOL DRY PLACE.

----- ADDITIONAL PRECAUTIONS AND COMMENTS -----

ADDITIONAL INFORMATION  
DISTILLATION OF TRIFLUOROACETIC ANHYDRIDE FROM POTASSIUM PERMANGANATE  
RESULTED IN AN EXPLOSION OF THE APPARATUS A FEW HOURS AFTER THE  
DISTILLATION WAS STOPPED. (CHEM. ENG. NEWS, P.2, MARCH 30, 1987)

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----- REGULATORY INFORMATION -----

NOT APPLICABLE

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. ALDRICH SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCT. SEE REVERSE SIDE OF INVOICE OR PACKING SLIP FOR ADDITIONAL TERMS AND CONDITIONS OF SALE.



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