

# Trifluoroacetic acid methylester (TFAME)



Trifluoroacetic acid methylester is a colorless and very volatile liquid, slightly pungent and is easily inflammable.

## Chemical reactions and applications

The esters of trifluoroacetic acid are specialties in organic synthesis. The chemical reactions are mainly based on a nucleophilic substitution of the ester and lead to formation of trifluoroacylated compounds. The most important reactions are the ester condensation for the synthesis of  $\beta$ -diketones, the trifluoroacylation of amines, the reaction with phosphine derivatives and the reaction with organometallics for the synthesis of fluorinated ketones and fluorinated tert. alcohols.

## Delivery and handling

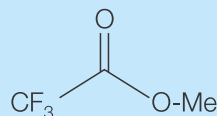
Trifluoroacetic acid methylester is delivered in polyethylene-lined metal drums. It is an inflammable, irritante liquid. When handling trifluoroacetic acid methylester, contact with skin and inhalation of the vapors of these extremely volatile compounds must be avoided at all costs and protective clothing must be worn. Affected parts of the body must be immediately rinsed with plenty of running water. A well ventilated working area is essential.

Further trifluoroacetic acid esters on request.

**Availability** t-lots

**HS. Code No.** 291590

## Molecular Structure



## Physical Properties

Chemical name:	Trifluoroacetic acid methylester
CAS-No.:	431-47-0
Chemical formula:	CF <sub>3</sub> COOCH <sub>3</sub>
Molecular formula:	C <sub>3</sub> H <sub>3</sub> F <sub>3</sub> O <sub>2</sub>
Molecular weight:	128.05
Boiling point:	43°C
Melting point:	< -78°C
Flash point:	-7°C
Density (20 °C):	1.273 g/cm <sup>3</sup>
n <sub>D</sub> <sup>20</sup> :	1.2907

## Specification

Purity:	min. 99.0 %
Water:	max. 0.05 %
Chloride:	max. 0.1 %
Fluoride:	max. 0.005 %

## Solvay Fluor GmbH

Hans-Böckler-Allee 20  
30173 Hannover  
Germany

Phone +49 511 857-0  
Fax +49 511 857-2146

www.solvay-fluor.com

Solvay  
Fluor

