

Responsible Care®



# **Ethyl Acetate**

Ethyl Acetate is a colourless liquid with fruity odour. It is soluble in most organic solvents such as alchohol, acetone, ether, choloroform etc. and slightly soluble in water it is highly effective and easily broken down in both air and water.

Jubilant Ingrevia can deliver green ethyl acetate made only from biologically produced ethanol to customers with highest enviornment standards.

## **Chemical Information**

**Product IUPAC Name:** Ethyl Acetate

Systematic IUPAC Name: Ethyl Ethanoate

**Synonyms:** Acetic Ester; Ethyl Ester of Acetic Acid; Acetic Ether

Molecular Formula: C4H8O2

Molecular Weight: 88.1 g/mol

**CAS Number:** 141-78-6

## Applications

Ethyl Acetate is your choice of solvent due to its least toxicity, agreeable odour and cost efficient. Due to its high evaporation rate it facilitates customised evaporation rate as per the requirement of process. These characteristics finds usage of ethyl acetate in wide range of applications like:

- Ink
- Surface coating and thinner
- Flexible packaging
- Adhesives
- Rubber and polymers
- Pharmaceuticals
- Flavours and essences
- Nail polish remover
- Decaffeinating of Tea and Coffee

## **Toxicity of Solvents**

Ethyl Acetate being one of the least toxic solvent, it keeps application areas of solvents much environment friendly for usage of employees on the shop floor.

	Ethyl Acetate		Toluene		Methyl Ethyl KetoneAcute
Acute Oral Toxicity LD50, mg/kg	4,100		636	€	2,737
Acute Toxicity of vapour LD50, mg/m3	45,000		440	€	32,000
Dermal toxicity LD50, ml/kg	>20,000		14,100		6,480

\*Lesser the values, higher the toxicity

\* Toluene is 100 times more toxic than Ethyl Acetate, in terms of its vapour exposure as solvent application.

### **ETHYL ACETATE**

- Least toxic among solvents
- Eye, Nose and Throat irritant

## TOLUENE

- Immediate effects are more severe than other solvents at high exposure
- Cause damage to Kidney and Liver

### **KETONES**

- Cause narcosis and irritation to the ye and upper respiratory tract at high concentration
- Cause defatting of the skin upon prolonged exposure resulting in dry, scaly, cracked skin

## **Photochemical SMOG**

- Ethyl Acetate in comparison with other solvents like Toluene, Xylene, MIBK and MEK, emits much lesser amount of VOC (Volatile Organic Compounds)
- Higher emission of VOC generates more Ozone at ground level (troposphere), which facilitate photochemical smog along with other pollutants like NOx and hence reduce air quality available for breathing
- SMOG also reduces visibility at ground level

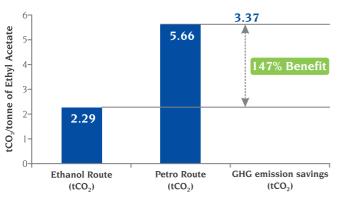
## **Relative Evaporation Rate**

- Better relative evaporation rate of Ethyl Acetate make it solvent of choice as it can help to achieve customised evaporation rate as per the requirement of manufacturer
- Better relative evaporation rate of Ethyl Acetate makes it an efficient solvent
- Higher evaporation rate is beneficial for applications where fast turnaround is desirable

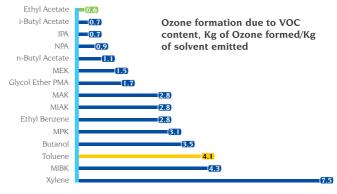
## **Carbon Footprint**

Using Ethyl Acetate produced by Jubilant will help you to make your supply chain greener.

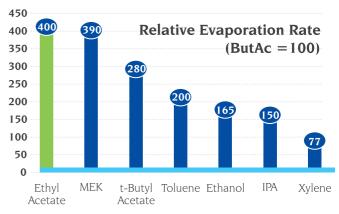
JLL saves estimated 3.37 tonne CO2 per tonne of Ethyl Acetate Production



Source: Estimation of Carbon footprint carried out by E&Y



Source: Based on Dr. William Carter's SAPRC - 99 model



**Source:** Based published data



Jubilant Ingrevia Limited is a global integrated Life Science products and Innovative Solutions provider serving Pharmaceutical, Nutrition, Agrochemical, Consumer and Industrial customers with customised products and solutions that are innovative, cost-effective and conforming to excellent quality standards.

The Company offers a broad portfolio of high-quality ingredients that find application in a wide range of industries. The company has 2,100 employees and serves more than 1,400 customers in more than 50 countries across the world. The Company's portfolio also extends to custom research and manufacturing for pharmaceutical and agrochemical customers on an exclusive basis.

#### **MANUFACTURING FACILITIES**

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**GUJARAT** • Bharuch

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