



EPOCH MASTER GLOBAL BUSINESS(JIANGSU)INC.

RM.3-93,TENGFEE BUILDING,NO.88 JIANGMIAO RD., RESEARCH AND INNOVATION PARK,  
NANJING ZONE,(JIANGSU) PILOT FREE TRADE ZONE ,CHINA.

Formic Acid

IUPAC Name Formic Acid

Cas Number 64-18-6

HS Code 2915.11.00

Formula HCOOH

Industry EPOCH MASTER

Appearance Clear, Colorless Liquid

Packaging 1000 @ 25 kg PE Jerry cans, 25 MT /  
20'FCL

#### Brief Overview

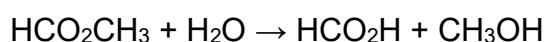
**Formic acid** is the simplest carboxylic acid and has a **molecular formula of HCOOH**. It has a pungent and penetrating odor at room temperature. It is also miscible with water and most polar organic solvents but immiscible in non-polar solvents.

**Formic acid** can be found in the venom of ants. It can undergo a series of organic reactions to form other relevant organic compounds, such as with alcohol to form esters, reduction to form aldehydes, decomposition to form carbon dioxide and water, and reaction with sulfuric acid to yield carbon monoxide.

#### Manufacturing Process

##### Hydrolysis of Methyl Formate

**Formic acid** can be manufactured with the reaction of methanol and carbon monoxide, in the presence of a strong base such as sodium methoxide. The methyl formate formed is then hydrolyzed to yield formic acid and regenerate methanol. With the regeneration of methanol, only a catalytic amount of methanol is required for the whole manufacturing process.



#### By-Product of Acetic Acid Production



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**Formic acid** is also a by-product of the manufacturing of acetic acid. When acetic acid is manufactured via the acetaldehyde oxidation method, butane is oxidized, and ethylene is hydrated via the Wacker process to obtain acetaldehyde. Further oxidation of acetaldehyde yields acetic acid, with a significant amount of formic acid as a by-product.

### **Hydrogenation**

Formic acid can also be formed from the hydrogenation of carbon dioxide or by heating oxalic acid in glycerol catalyst and extraction by steam distillation. Alternatively, oxidation of biomass such as sugars, wood, and waste paper can yield formic acid and carbon dioxide.