

### Technical Data Sheet

# Hefei TNJ Chemical Industry Co.,Ltd.B910~911 Xincheng Business Center,Qianshan Rd. Hefei 230022 ChinaTel :(0086) 551 65418678Fax:(0086) 551 65418697Email:info@tnjchem.comSite:www.tnjchem.com

## Acrolein

#### **Product Information**

Chemical Name	Acrolein
CAS #	107-02-8
Formula	C3H4O
Molecular Weight	56.06

**Chemical Structure** 

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#### Description

Acrolein is the simplest unsaturated aldehyde. It is a colourless liquid with a piercing, disagreeable, acrid smell. The smell of burnt fat (as when cooking oil is heated to its smoke point) is caused by glycerol in the burning fat breaking down into acrolein. It is produced industrially from propylene and mainly used as a biocide and a building block to other chemical compounds, such as the amino acid methionine.

#### Specification

Items	Specification
Appearance	Colorless transparent liquid
Content,%	≥ 95
Purity,(GC)%	≥ 98
Moisture,%	≤ 3.0
Hydroquinone,%	0.25~0.35

#### Safety

Always refer to the Material Safety Data Sheet (MSDS)

#### Applications

Acrolein is mainly used as a contact herbicide to control submersed and floating weeds, as well as algae, in irrigation canals. It is used at a level of 10 ppm in irrigation and recirculating waters. In the oil and gas industry, it is used as a biocide in drilling waters, as well as a scavenger for hydrogen sulfide and mercaptans.

A number of useful compounds are made from acrolein, exploiting its bifunctionality. The amino acid methionine is produced by addition of methanethiol followed by the Strecker synthesis. Acrolein condenses with acetaldehyde and amines to give methylpyridines. It is also thought to be an intermediate in the Skraup synthesis of quinolines, but is rarely used as such due to its instability. Acrolein will polymerize in the presence of oxygen and in water at concentrations above 22%. The color and texture of the polymer depends on the conditions. Over time, it will polymerize with itself to form a clear, yellow solid. In water, it will form a hard, porous plastic. Acrolein is sometimes used as a fixative in preparation of biological specimens for electron microscopy

#### Packaging

ISO TANK 11.7mt~13.96mt.

#### Storage & Handling

Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame). efrigerate. Sensitive to light.

Always refer to the Material Safety Data Sheet (MSDS) for detailed information on handling and disposal.

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#### Hefei TNJ Chemical Industry Co., Ltd.

3910~911 Xincheng Business Center Qianshan Road, Hefei 230022 Anhui 
 Tel:
 (0086) 551 65418678

 Fax:
 (0086) 551 65418697

 Email:
 info@tnjchem.com

China

Site: <u>www.tnjchem.com</u>