



**Acrylic Acid, Glacial**  
 2-Propenoic Acid, Acroleic Acid,  
 Vinyl Formic Acid  
 $\text{CH}_2=\text{CHCOH}$



**General Description**

Glacial acrylic acid is a clear, colorless liquid with a characteristic acrid odor. It is miscible with water, alcohols and ethers. Acrylic acid will undergo the typical reactions of a carboxylic acid, as well as reactions of the double bond similar to those of the acrylate esters. It lends itself to polymer preparation as well as use as a chemical intermediate. Acrylate esters, both mono- and multifunctional, are generally prepared from acrylic acid.

**Typical Properties<sup>(1)</sup>**

Molecular Weight	72.06
Relative Evaporation Rate nBuAc=1	0.3
Vapor Pressure at 20°C, mmHg	3
Density at 20°C lb/gal	8.75
Specific Gravity at 20/20°C	1.0519
Viscosity at 25°C, cP	1.232
Surface Tension	
(dynes/cm at 20°C)	28.5
(dynes/cm at 25°C)	-
Boiling Point, °C at 760 mm Hg	141.0
Melting Point, °C	13
Solubility at 20°C	
% wt in water	Complete
% wt water in	Complete
Closed Cup Flash Point, °F	122
SARA 313 <sup>(2)</sup>	-
Hazardous Air Pollutants <sup>(3)</sup>	-

**Classification/Registry Numbers**

CAS Number	79-10-7
EINECS	-

1. Typical properties: not to be construed as specifications. For details on analytical methods used in determining typical properties, contact your Dow representative.
2. Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III, Section 313.
3. Hazardous Air Pollutants listed under Title III of the Clean Air Act.

**Applications**

Acrylic acid is used in the production of coatings, elastomers, adhesives, thickeners, super-absorbents, acrylic esters, and fiber sizing. Sodium acrylate (the sodium salt of glacial acrylic acid) is copolymerized with acrylamide to make an anionic copolymer (a-PAA), which is used as a flocculant in water treatment.

## Safety and Handling Considerations

To obtain a Material Safety Data Sheet (MSDS or SDS) or a Safe Handling Guide for acrylic acid, please contact us at the appropriate phone number for the location listed on the last page of this Technical Data Sheet or send your request via Email using the Contact Us form on [www.dowacrylates.com](http://www.dowacrylates.com).

Request Acrylic Acid Safety and Handling Guide, Form Number 745-00006 or the European Acrylic Acid Safety and Handling Guide, Form Number 745-00008.

## Customer Notice

Dow encourages its customers to review their applications of Dow products from the standpoint of human health and environmental quality. To help ensure that Dow products are not used in ways for which they were not intended or tested, Dow personnel are willing to assist in dealing with ecological and product safety considerations. Your Dow representative can arrange the proper contacts.

Dow will not knowingly sell or sample any products into any commercial or developmental application which is intended for: permanent or long-term contact with internal body fluids or internal body tissues; use in cardiac prosthetic devices regardless of the length of time involved; use as a critical component in medical devices that support or sustain human life; or use specifically by pregnant women or in applications designed specifically to promote or interfere with human reproduction.

### For Additional Information Call:

United States & Canada: 1-800-258-2436  
Europe: +800 3 694 6367  
Pacific: +800 7776-7776  
China: +800 10-600-0015  
Latin America: 1-989-832-1560

**Notice:** Because use conditions and applicable laws may differ from one location to another and may change with time, Customer is responsible for determining whether products and the information in this document are appropriate for Customer's use and for ensuring that Customer's workplace and disposal practices are in compliance with applicable laws and other governmental enactments. Dow assumes no obligation or liability for the information in this document. NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED. No freedom from any patent owned by Dow or others is to be inferred.

<http://www.dowacrylates.com>

