

ACRYLONITRILE



CAS Number: 107-13-1

Other Names: Prop-2-enenitrile; Cyanoethene; Vinyl cyanide (VCN);
Cyanoethylene; Propenenitrile; Carbacryl; Fumigrain

Formula: C₃H₃N or H₂C(CH)CN

PRODUCT INTRODUCTION

Acrylonitrile is a clear, colorless or pale-yellow liquid at room temperature with chemical formula H₂C(CH)CN. It has a sweet, sharp odor like onion or garlic. It is soluble in water and is volatile in nature. Acrylonitrile is an important commercial chemical.

PHYSICAL AND CHEMICAL PROPERTIES

Acrylonitrile (wt%)	99.60
Acetone (ppm)	1
Oxazole (ppm)	1
Acetonitrile (ppm)	5
Propionitrile (ppm)	11
Methyl acrylonitrile (ppm)	15
Acrolein (ppm)	103
Acidity (as Acetic acid) (ppm)	8.8
Aldehydes (as Acetaldehyde) (ppm)	6
HCN (ppm)	1.2
Copper (ppm)	0.01
Iron (ppm)	0.01
Water (wt%)	0.39
Peroxides (ppm)	Less than 0.01
Appearance	Clear
Color (APHA)	10
Inhibitor (MEHQ) (ppm)	37
Non-volatile matter (ppm mass)	56.0
Oxygen bomb stability (hours)	More than 4
pH	6.8
Titration Value (mL)	Less than 0.5

Refractive Index nD (25 °C)	1.3888
Distillation initial point (°C)	75.3
Distillation Final Point (°C)	77.0
Distillation Range (°C)	1.7
Specific Gravity (25/15.5 °C)	0.8012

APPLICATIONS

- Acrylonitrile acts as a monomer used in the production of polyacrylonitrile plastics, adhesives and synthetic rubber.
- It is also used for the synthesis of copolymers such as styrene-acrylonitrile, acrylonitrile butadiene styrene, acrylonitrile styrene acrylate.
- It is involved in the preparation of adiponitrile by dimerization, which finds application in polyamide synthesis.
- It acts as a precursor to acrylamide and acrylic acid. It is used as dienophile in Diels-Alder reactions.
- It acts as a chemical intermediate in the synthesis of antioxidants, active pharmaceutical ingredients, dyes, and surface-active agents.
- Further, it is utilized for the preparation of acrylic fibers, resins and nitrile rubbers.
- In addition to this, it serves as a fumigant for food commodities, flour milling, and bakery food processing equipment.

PACKING OPTIONS

Tanks
Drums

To Get A Quote, Email On marketing@sanjaychemindia.com