



Prionil[®]

PROPIONITRILE



ALSO KNOWN AS

- Propionitrile
- Ethyl cyanide
- Propanenitrile

KEY CHARACTERISTICS

- Cost-effective intermediate
- Higher boiling point relative to acetonitrile
- High solvency - miscible in acetone, alcohol and ether
- Water soluble



Flopropione
pharmaceutical



Trifluralin
herbicide



Crystallization solvent
purification aid



Propionate salts
mold inhibitor

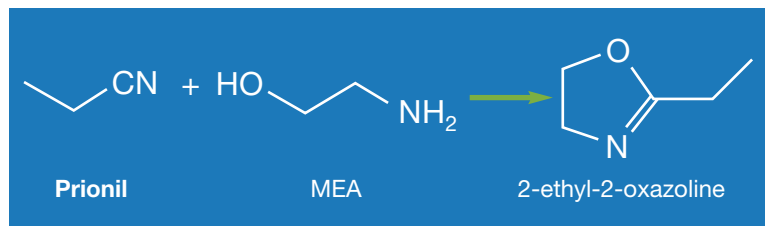
Prionil®

PROPIONITRILE

Prionil is a specialty nitrile, also known as propionitrile, used as a building block for many key intermediates in agricultural, industrial, personal care and other applications.

INTERMEDIATES

- As a herbicide and pharmaceutical intermediate, Prionil is a precursor to propylamines (nPA, DnPA, TnPA), C-3 building blocks used in the preparation of:
 - Trifluralin (herbicide)
 - Flopropione (pharmaceutical)
- Oxazoline intermediate
As an oxazoline intermediate, Prionil can be used as an epoxy curing agent, in pharmaceuticals (Tagamet), in adhesives, herbicides and specialty acrylics



- Propionate salts (Na/Ca/NH₄)
 - Mold inhibitor for bread: calcium salt
 - Meat preservative: sodium salt
 - Mold inhibitor for animal feed: ammonium salt
- Propionate esters
- Propionic acid

SOLVENTS

- Crystallization solvent
Used in the production of fragrances, flavorings, amines and pharmaceuticals such as ketoprofen
- Acetonitrile replacement
- Electronic cleaners



CHARACTERISTICS

Assay, wt. %	98 minimum
Color, APHA	40 maximum
Water, wt. %	0.5 maximum
Other nitriles, wt. %	3.5 maximum

PROPERTIES

Chemical formula	C ₃ H ₅ N
Molar mass	55.08 g·mol ⁻¹
Appearance	Colorless liquid
Odor	Sweetish pleasant
Density	772 mg mL ⁻¹
Melting point	-100 to -86°C
Boiling point	96 to 98°C
Solubility in water	11.9% (20°C)
Vapor pressure	270 μmol Pa ⁻¹ kg ⁻¹
Refractive index (nD)	1.366
Flash point	Flash point 6°C (43°F)

About Ascend

Ascend Performance Materials is a global leader in the production of high-quality plastics, chemicals, and fibers. As the world's largest fully integrated manufacturer of nylon 6,6 resin, our manufacturing processes are vertically integrated, ensuring the highest level of quality and economies of scale. Ascend's specialty chemicals and blends of acids, amines and esters are used in a variety of applications and industries. We offer customized solutions through formulated products and superior technical support.

North America

1010 Travis Street, Suite 900
Houston, TX 77002
United States

+1 713 315 5700

Europe

Watson and Crick Hill Park
11, rue Granbonpré - Bâtiment H
B-1435 Mont-St-Guibert
Belgium

+32 10 60 8600

Asia

Unit 3602, Raffles City
No. 268, Xizang Road (M)
Shanghai, 200001
China

+86 21 6340 3300

inspiring everyday

ascendmaterials.com/specialtychemicals

Disclaimer of Warranty and Liability

NOTICE: Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, Ascend Performance Materials Operations LLC makes no representations or warranties as to the completeness or accuracy thereof.

Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will Ascend Performance Materials Operations LLC be responsible for damages of a nature whatsoever resulting from the use of or reliance upon information or the products to which information refers. Nothing contained herein is to be construed as a recommendation to use any product, equipment or formulation in conflict with any patent, and Ascend Performance Materials Operations LLC makes no representation of warranty, express or implied, that use thereof will not infringe any patent. No representations or warranties, either express or implied, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to the information or the product to which the information refers.

©2017 Ascend Performance Materials Operations LLC. The Ascend Performance Materials and Prionil marks and logos are trademarks or registered trademarks of Ascend Performance Materials Operations LLC. **Rev. 11/2017**