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Technical Data Sheet

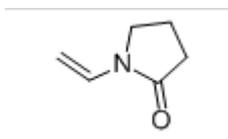
N-Vinyl-2-Pyrrolidone

Product Information

| | |
|------------------|--|
| Chemical Name | N-Vinyl-2-Pyrrolidone |
| CAS # | 88-12-0 |
| Formula | C ₆ H ₉ NO |
| Molecular Weight | 111.1 |
| Synonyms: | N-Vinylbutyrolactam; 1-Vinyl-2-pyrrolidone; 1-Vinyl-2-pyrrolidinone; 1-Ethenyl-2-pyrrolidinone; N-Vinyl-2-pyrrolidinone; N-Vinyl-2-pyrrolidone. |

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Chemical Structure



Description

N-Vinyl-2-pyrrolidone (NVP) is either caustic stabilized with 0.1% NaOH, or amine stabilized with 10 ppm N,N'-di-sec-butyl-paraphenylene diamine. NVP is a slightly to moderately yellow heterocyclic, reactive vinyl monomer made from the reaction of acetylene and 2-pyrrolidone. The inherent properties of high polarity, low toxicity, water solubility, chemical stability and pseudo-cationic activity are imparted to its homopolymers and copolymers.

Physical Properties

| | |
|-----------------------------------|--------|
| Melting point, °C | 14 |
| Boiling range, °C | 90- 92 |
| Density @ 20°C, g/cm ³ | 1.043 |
| Flash point, °C | 95 |

Specification

| Item | Specification |
|----------------------|------------------|
| Appearance: | Colorless liquid |
| Assay, % min | 99.5 |
| α-pyrrolidone, % max | 0.2 |

| | |
|-------------------------|-------|
| Water, % max | 0.2 |
| Color, max | 60 |
| Crystallation point, °C | 13-14 |

Safety

N-Vinyl-2-pyrrolidone may irritate the skin and eyes and contact may result in corneal opacity. Inhalation of vapors or mists may irritate the respiratory tract.

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

Applications

The NVP monomer is commonly used as a reactive diluent in ultraviolet and electron-beam curable polymers applied as inks, coatings or adhesives. Copolymers of NVP are used in the above applications and also for textile finishes and sizes, cosmetics, pharmaceuticals and as a vehicle for hair spray.

Packaging

200kg per plastic or iron drum.

16mt per 20ft container

Storage & Handling

NVP tends to polymerize as storage time and temperature increase.

To prevent this undesirable polymerization, small amounts of a stabilizer are added during drumming and prior to shipping bulk quantities.

It may assume a yellow color after several months of storage, but its quality will not be impaired.

It is neither explosive nor spontaneously flammable. However, it is combustible.

If a drum of NVP has solidified, it should be melted carefully in a waterbath or warm room at 30° C max.

The drum should not be heated with steam.

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

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchant ability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if we has been advised of the possibility of such damages.

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