

## Acrylamide PRODUCT DATA SHEET

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Product Name: Acrylamide

Product Number: A053

CAS Number: 79-06-1 Molecular Formula:  $C_3H_5NO$ 

Molecular Weight: 71.08

Form: Powder

**Appearance:** White Crystal

Source: Synthetic

**Absorbance:** (At 300 nm, 1% in  $H_2O$ )  $\leq 0.15$ 

**pH**: 6.5 - 7.5

Melting Point: 84 - 86°C

**Storage Conditions:** Ambient (≤30°C)

**Description:** Acrylamide (prop-2-enamide) is a chemical widely used in electrophoresis

applications to separate proteins and nucleic acids.

High exposure to acrylamide has been linked to nerve damage and

reproductive toxicity in humans and has been shown to cause several types of cancer in rodents. To avoid exposure to acrylamide powder, <u>acrylamide</u>

solutions are also available.

This product is considered a dangerous good. Quantities above 1 g may be subject to additional shipping fees. Please contact us for specific questions.

Microbiology Applications Acrylamide and bis-acrylamide can be synthetically modified into new

polymers and compounds with antibacterial properties.

Electrophoresis Applications In molecular biology, acrylamide is most fequently used in sodium dodecyl sulfate polyacrylamide gel electrophoresis (SDS-PAGE). Polyacylamide gels contain linear acrylamide polymers which form small pores allowing separation of proteins and nucleic acids based on molecular weight.

TOKU-E Acrylamide, Grade II is produced by enzyme conversion, eliminating the hard-to-remove by-products produced using chemical synthesis. It is then purified by our proprietary purification method resulting in a product of unsurpassed quality. This method produces an acrylamide with ultra-low turbidity (<0.5NTU vs. ~2.0 NTU) for commercial electrophoresis grade acrylamide) and insolubles of less than 0.005%. This ensures gels of the highest quality, the greatest consistency and ultimately the best resolution.

## References:

"Acrylamide." Cancer.org. American Cancer Society, n.d. Web. 10 Sept. 2014.

"Acrylamide in Food and Cancer Risk." Cancer.gov. National Cancer Institute, n.d. Web. 10 Sept. 2014.

Zhang, Anqiang. "Synthesis and Antimicrobial Activities of Acrylamide Polymers Containing Quaternary Ammonium Salts on Bacteria and

Phytopathogenic Fungi." Reactive and Functional Polymers 88 (2015): 39-46.

Web.

If you need any help, contact us: <a href="mailto:info@toku-e.com">info@toku-e.com</a>. Find more information on: <a href="mailto:www.toku-e.com">www.toku-e.com</a>/