



**ANGUS**<sup>®</sup>  
LIFE SCIENCES



**Key Performance Advantages**

Excellent neutralizer, solubilizer and stabilizer

Water, alcohol and glycol soluble

[angus.com](http://angus.com)

# TRIS AMINO<sup>®</sup> Crystals

For Industrial Formulation and Biological Reprocessing

TRIS AMINO<sup>®</sup> Crystals meet the needs and specifications of formulators and blenders that serve life science research and intermediate chemical applications with a consistent product at an economical price.

- Reliable production
- Available in 50 lb bags
- Recognized production and quality
- ISO 9001:2008 Certified

## Typical Properties

The following are typical physical/chemical properties of TRIS AMINO Crystals. They are not to be considered product specifications.

<b>Appearance</b>	White, crystalline powder
<b>Assay, on a dried basis, % by weight (minimum)</b>	99.0
<b>pH, 5% aqueous solution</b>	10.0-11.5
<b>APHA Color, 20% aqueous solution (maximum)</b>	20
<b>Water content, % by weight (maximum)</b>	0.5
<b>Melting Point, dried basis, °C (minimum)</b>	> 160°C (> 320°F)
<b>UV Abs @ 260nm, 40% Aqueous</b>	< or = 0.40 OD
<b>UV Abs @ 280nm, 40% Aqueous</b>	< or = 0.40 OD
<b>UV Abs @ 290nm, 40% Aqueous</b>	< or = 0.40 OD

WE MAKE THE BEST PERFORM BETTER

## COMPLETE LINE OF TRIS AMINO® PRODUCTS

Product Name	Package Size	Product Number
TRIS AMINO Crystals	50 lb	144877
	50 kg	151698
	25 kg	288737
TRIS AMINO Ultra Pure (USP/EP)	12 kg	201109
	5 kg	154032
	25 kg	279652
TRIS AMINO Ultra Pure (USP/EP/JP)	12 kg	11103436
	25 kg	146914
TRIS AMINO Ultra Pure (ACS)	25 kg	146914
TRIS AMINO Buffer	25 kg	273255
TRIS AMINO HCl PRIME	25 kg	375435
TRIS AMINO HCl Ultra Pure	25 kg	146948

## ANGUS Life Sciences Capabilities

With dedicated support for biotechnology and pharmaceutical applications, ANGUS Life Sciences helps customers develop winning products, shape successful launches and achieve faster time-to-market—all while building in optimized cost effectiveness and efficiency.

We also provide additional resources, including special testing, custom blending and specialized packaging—key foundational support systems for the formulation, manufacturing and delivery of successful life sciences product lines.

## Product Stewardship

ANGUS encourages its customers to review their applications of ANGUS products from the standpoint of human health and environmental quality. To help ensure that ANGUS products are not used in ways for which they are not intended, ANGUS personnel will assist customers in dealing with environmental and product safety considerations. For assistance, product Safety Data Sheets, or other information, please contact your ANGUS representative at the numbers provided in this document. When considering the use of any ANGUS product in a particular application, review the latest Safety Data Sheet to ensure that the intended use is within the scope of approved uses and can be accomplished safely. Before handling any of the products, obtain available product safety information including the Safety Data Sheet(s) and take the necessary steps to ensure safety of use.



## Capabilities

### Packaging

- cGMP custom and private labeling service
- Barcoding
- Custom packaging – 10 g to 100 kg and larger
- Multiple container options

### Purchasing

- Global sourcing capabilities
- Formalized qualification process
- Supplier rating and audit program
- Non-animal origin

### Analytical

- cGMP
- ISO 9001:2008 certified
- Biological testing (RNase, DNase, Protease, Endotoxin, Bioburden)
- Technical service
- Multi-compedia products

### Warehousing

- cGMP warehousing
- Inventory reservation (pre-shipment sampling)
- Same day shipment

### Sales/Customer Service

- Same day order/delivery
- Source information
- Bulk and custom pricing
- Confirmation of customer specifications
- Dedicated CSRs



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