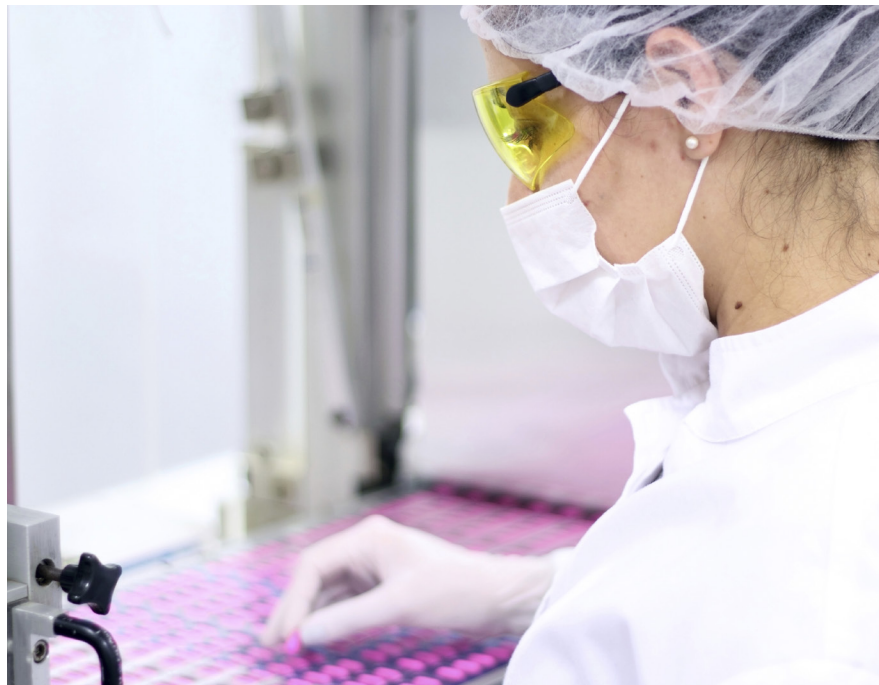


**ANGUS**<sup>®</sup>  
LIFE SCIENCES



**Key Performance Advantages**

Provides chemical stabilization in aqueous formulations

Mild alkalinity for buffering at physiological pH

Exhibits minimal salt effects

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

## TRIS AMINO<sup>®</sup>

### Excipient and Processing Buffer for Life Sciences Applications

At ANGUS Life Sciences, we're dedicated to giving you quality, traceable ingredients supported by a consistently reliable supply chain. The work we do stems from a 50-year legacy as your primary source of specialized chemistries, like our TRIS AMINO<sup>®</sup>. ANGUS Life Sciences is the only fully integrated manufacturer of TRIS AMINO in the world.

TRIS AMINO is an established excipient as well as a processing buffer used in the purification of biological molecules providing chemical stabilization to aqueous solutions. A buffer solution containing TRIS AMINO and its hydrochloride salt at a molar ratio 1:3 is considered a standard buffer solution for use in the physiological pH range of 7.3 to 7.51.

In an array of biotechnology and pharmaceutical applications, TRIS AMINO is a stable compound guaranteed to meet the specifications of our customers—developed with cGMP-compliant manufacturing processes in ISO 9001:2008 certified facilities.

In addition to offering fine and specialized chemistries to help your best products perform better, ANGUS is a Responsible Care<sup>®</sup> Member Company, and has made a commitment to the Responsible Care Guiding Principles. Recognized as the world's most experienced manufacturer of TRIS AMINO, ANGUS Life Sciences is the global supplier you can reliably count on.

- Only fully integrated TRIS AMINO manufacturer in the world
- U.S. source with more than 50 years of TRIS AMINO manufacturing experience
- A TRIS AMINO grade to match your exact requirements
- cGMP manufacture, packaging and testing to meet market-specific regulations
- Customer-specific packaging and testing available
- Global supply capability

**WE MAKE THE BEST PERFORM BETTER**

## COMPLETE LINE OF TRIS AMINO® PRODUCTS

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

## 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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