



TRIS AMINO™ AC Ultra Pure

Less Clumping. More Preparation Efficiency.

While most TRIS buffers are prone to clumping and hardness, the next-generation TRIS AMINO™ AC (Advanced Crystal) Ultra Pure buffer features a unique crystal morphology that results in less time, energy and cost to break up clumps prior to buffer preparation.

TRIS AMINO AC Ultra Pure is manufactured using a proprietary process technology that produces a larger, more rounded particle. Without making any changes to the molecule itself, this process helps prevent the formation of strong, hard cakes even when subjected to a variety of packaging, shipping and storage conditions.

- Low interparticle cohesion between crystals requires less energy to break up clumps
- More spherical crystals for easy dispensing and transport
- Fewer fine particles for lower dust emissions
- No additives or anti-clumping agents
- Highest purity and testing requirements including bioburden and endotoxin
- cGMP-compliant with comprehensive documentation
- Proven safe use in commercial drug products
- Fully traceable supply chain including base materials
- Elemental impurity risk assessment using ICP-MS technology
- Ability to maintain pH from 7 to 9 by utilizing a combination of free base and its salts
- Amine and alcohol functionality for versatile chemical reactivity



Larger size + fewer fine particles + smoother surface = less clumping. The unique morphology of TRIS AMINO AC buffers helps reduce cake strength, resulting in less clumping and hardness. (*4x magnification*)

Uses and Applications

- Pharmaceutical raw material compliant with USP, EP, JPC, and ChP monographs
- Commercial purification (downstream processing) of biological molecules including monoclonal antibodies and recombinant proteins
- Processing aid for insulin manufacturing
- Non-sterile pharmaceutical excipient
- Buffer for molecular biology and clinical diagnostic applications
- pH buffering of enzymes in biotechnology applications
- Small molecule API salt to systematically adjust drug hydrophilicity
- Small molecule synthesis building block

Typical Properties*

Purity:	99.9%	pKa @ 37°C:	7.8
Molecular weight:	121.14	pKa/°C:	-0.03
Melting point:	168.0 – 172.0°C	pH of 0.1M aqueous solution (20°C):	10.4
pKa @ 20°C:8.3	Δ pH/10X dilution:	-0.05 to -0.10

*Values shown are typical properties and are not to be considered product specifications. Biologics Grade is tested for bioburden and endotoxin.

Product Information

Chemical Type	Chemical Name	CAS No.	Catalog No.	Size
Buffer	TRIS AMINO AC Ultra Pure USP, EP Biologics Grade	77-86-1	376127	5 KG
			376126	12 KG
			375907	25 KG


Discover A Better Way™

Spectrum Chemical is proud to offer a curated portfolio of TRIS buffers from ANGUS Chemical Company. From early-stage biopharmaceutical development through commercialization, ANGUS' high-purity, cGMP-compliant TRIS AMINO™ buffers and TRIS derivatives help the world's leading biopharmaceutical companies achieve the most consistent, cost-effective manufacturing processes.




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Conventional TRIS



TRIS AMINO AC Ultra Pure



Larger Size = Less Clumping