



Technical Data Sheet

TDS-ASA-2056
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Product Identification

Product Name	Tylosin Tartrate
Catalog No.	ASA-2056
CAS No.	74610-55-2
Lot No.	TYL260301
Mfg. Date	March 2026
Retest Date	March 2029
Grade	Research Grade
Purity	>= 95% (HPLC)
Source Organism	Streptomyces fradiae

Physical & Chemical Properties

Appearance	White to off-white powder; free-flowing
Molecular Formula	C ₄₆ H ₇₇ NO ₁₇ · C ₄ H ₆ O ₆
Molecular Weight	1,154.32 g/mol
Antibiotic Class	Macrolide — 16-membered lactone ring
Solubility (water)	Soluble — enhanced vs. free base Tylosin
Solubility (methanol)	Soluble
UV Absorption	~290 nm (characteristic macrolide chromophore)
pH Stability	Stable pH 4–8; degrades at extreme acid/alkaline
Storage	2–8 °C, protected from light and moisture

Quality Control Specifications



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Parameter	Specification	Method
Appearance	White to off-white powder; no visible impurities	Visual inspection
Purity (HPLC)	>= 95%	HPLC reversed phase, UV 290 nm
Identity (UV-Vis)	Absorption maximum ~290 nm	UV-Vis spectrophotometry
Identity (MS)	Confirmed by LC-MS; [M+H] ⁺ consistent with MW 1154.32	LC-MS
Loss on Drying	<= 5.0% w/w	105 °C / 2 h (gravimetric)
Solubility (10 mg/mL)	Clear solution in water	Solution clarity test
Biological Activity	Inhibition zone >= 18 mm vs. <i>S. aureus</i> ATCC 25923 (30 µg disk)	Kirby-Bauer disk diffusion
Heavy Metals (Pb equiv.)	<= 20 ppm	ICP-MS

Preparation & Use Guidelines

Stock Solution (water)	Dissolve at 10–50 mg/mL in sterile water; vortex gently; filter through 0.22 µm
Stock Solution (MeOH)	Dissolve at 50 mg/mL in methanol for non-aqueous applications
Working Dilution	0.5–64 µg/mL typical MIC range; prepare by serial dilution in broth or buffer
Media Addition	Add aseptically post-autoclave at 45–50 °C to prevent activity loss
Disk Diffusion	Impregnate 6 mm disk with 30 µg Tylosin Tartrate; refer to CLSI/EUCAST for breakpoints
MIC Testing	Broth microdilution per CLSI M07; inoculum 5×10 ⁵ CFU/mL
Solution Stability	Aqueous: 4 °C <= 2 weeks; frozen -20 °C <= 6 months; avoid repeated freeze-thaw

Technical References

Antibiotic Class	Macrolide — 16-membered ring; structurally related to erythromycin; broader spectrum against Mycoplasma
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CLSI Standards	CLSI VET08 — Antimicrobial Disk and Dilution Susceptibility Tests for Bacteria Isolated from Animals
Related Compounds	Tylosin A (major), Tylosin B (Desmycosin), Tylosin C, Tylosin D
CAS Verification	CAS 74610-55-2 (tartrate salt); CAS 1401-69-0 (Tylosin free base)
SUSMP	Schedule 4 for therapeutic use — this supply is for research use only

Disclaimer: *AuSaMicS Pty Ltd (ABN 56 676 640 467) warrants that this product meets stated specifications at time of manufacture. For research use only. Not for human or veterinary therapeutic use. AuSaMicS Pty Ltd shall not be held liable for any damages resulting from use outside the intended application.*