



Technical Data Sheet

TDS-ASD-629
www.ausamics.com.au

Product Identification

Product Name	Quinoline Yellow (Food Grade E104)
Trade Name	Quinoline Yellow GT7040
Catalog No.	ASD-629
CAS No.	8004-92-0
C.I. No.	47005 (Acid Yellow 3)
EU Food Code	E104
Lot No.	QY260301
Mfg. Date	March 2026
Retest Date	March 2028
Grade	Food Grade / Pharmaceutical Grade / Cosmetic Grade

Physical & Chemical Properties

Appearance	Bright yellow to greenish-yellow powder or granules; free-flowing
Colour (solution)	Vibrant greenish-yellow
Chemical Class	Quinophthalone derivative — anionic synthetic dye; water-soluble
CAS No.	8004-92-0 (water-soluble mixture)
C.I. No.	C.I. 47005 (Acid Yellow 3)
Solubility	Highly water soluble; insoluble matter 0.05% (max 0.2% spec.)
Charge	Anionic
pH Stability	Stable pH 3–8; colour may shift at extreme alkaline pH
Heat Stability	Good — stable to standard food processing temperatures
Light Stability	Moderate — protect from prolonged UV exposure



Technical Data Sheet

TDS-ASD-629
www.ausamics.com.au

Specifications & Certificate of Analysis Data

Parameter	Specification / Limit	Batch Result (Lot QY260301)	Status
Total Dye Content (dried 105±1°C / 2h)	Min. 70.0%	72.6%	PASS
Loss on Drying (135°C) + Chlorides/Sulphates	Max. 18–20%	12.20%	PASS
Water-Insoluble Matter	Max. 0.2%	0.05%	PASS
Combined Ether Extracts	Max. 0.2%	0.050%	PASS
Subsidiary Dyes	Max. 3.0%	0.1%	PASS
Dye Intermediates	Max. < 0.5%	< 0.5%	PASS
Lead (Pb)	Max. < 10 mg/kg	< 10 mg/kg	PASS
Arsenic (As)	Max. < 3 mg/kg	< 2 mg/kg	PASS
Heavy Metals (total)	Max. < 40 mg/kg	< 40 mg/kg	PASS

Use Levels & Formulation Guidelines

Typical Use Level (food)	10–200 mg/kg depending on food category and jurisdiction — consult EU Annex II or FSANZ Standard 1.3.1 for specific limits
Typical Use Level (pharma)	Per ICH Q3B/Q3C and formulation requirements; no maximum specified for D&C Yellow 10 in solid dosage
Recommended Dissolution	Dissolve in water or aqueous buffer first; add to formulation with mixing
pH Compatibility	Stable pH 3–8; slight colour shift may occur above pH 9
Heat Stability	Stable to typical processing temperatures (pasteurisation, baking); avoid prolonged >120 °C
Incompatibilities	Strong oxidising agents (bleach, peroxides) — may decolourise; strong reducing agents; extreme pH
Synergies	May be blended with other permitted food colours (e.g., Tartrazine E102) to achieve target hues



Technical Data Sheet

TDS-ASD-629
www.ausamics.com.au

Quality Control Methodology

Dye Content	UV-Vis spectrophotometry at characteristic absorption wavelength; corrected for dried weight
Loss on Drying	Gravimetric — 135 °C to constant weight
Water-Insoluble Matter	Filtration through 0.45 µm membrane; gravimetric
Subsidiary Dyes	HPLC or TLC (thin-layer chromatography)
Heavy Metals	ICP-MS / AAS (Pb, As, Hg, Cd individually)
Identity	UV-Vis spectrum comparison; HPLC retention time vs. reference standard

Technical References

EU Food Law	Regulation (EC) No. 1333/2008 on food additives — Annex II, E104
JECFA	WHO Food Additive Series: Quinoline Yellow; ADI 0–10 mg/kg body weight
EFSA	EFSA ANS Panel re-evaluation 2013 — E104 confirmed at current ADI
US (Pharma/Cosmetic)	21 CFR 74.1710 — D&C Yellow No. 10 (drugs and cosmetics)
FSANZ	Standard 1.3.1 — Food Additives, Australia New Zealand Food Standards Code
Pharmacopoeia	Refer to relevant Ph. Eur. / BP / USP monographs for pharmaceutical grade use

Disclaimer: AuSaMicS Pty Ltd (ABN 56 676 640 467) warrants that this product meets the specifications stated herein at time of manufacture and release. Customers are responsible for ensuring compliance with local food safety regulations in their specific region of use. AuSaMicS Pty Ltd shall not be held liable for any direct, indirect, incidental, or consequential damages resulting from use outside the intended application. By using this product the purchaser agrees to these terms.