

Methylene Blue Trihydrate

3,7-bis(dimethylamino)phenothiazin-5-ium chloride trihydrate | CAS 7220-79-3

Product identification

Product name	Methylene Blue Trihydrate
Chemical name	3,7-bis(dimethylamino)phenothiazin-5-ium chloride trihydrate
CAS number	7220-79-3
PubChem CID	104827
Molecular formula	C ₁₆ H ₂₄ ClN ₃ O ₃ S
Molecular weight	373.90 g/mol
InChIKey	XQAXGZLFSSPBMK-UHFFFAOYSA-M
Canonical / reference SMILES	<chem>CN(C)C1=CC2=C(C=C1)N=C3C=CC(=[N+](C)C)C=C3S2.O.O.O.[Cl-]</chem>
Material type	Chemical reference material / technical compound

Material description

Methylene Blue Trihydrate is a phenothiazinium chloride trihydrate supplied by Rexar as a chemical reference material / technical compound. The identity data support laboratory identification, documentation and analytical comparison.

Intended use

For laboratory, analytical, chemical and method-development applications. Not for human or animal consumption. Not intended for food, supplement, cosmetic, medical, diagnostic or therapeutic use.

Reference characteristics

Structural class	Phenothiazinium chloride trihydrate
Typical physical form	Dark green crystals or crystalline powder, often with bronze lustre
Storage guidance	Keep tightly closed, dry and protected from light; follow lot-specific supplier storage information.

Analytical use and traceability

Lot-specific purity, water content, residual solvents and analytical acceptance criteria must be taken from applicable supplier documentation or a certificate of analysis; they are not inferred by this datasheet.

Safety note

PubChem provides a Laboratory Chemical Safety Summary for this substance. Apply supplier/batch-specific classification and standard laboratory controls. Consult the applicable Safety Data Sheet before handling.

Identity verification note

Trihydrate identity verified against PubChem CID 104827: CAS 7220-79-3, C₁₆H₂₄ClN₃O₃S and 373.9 g/mol. This is distinct from anhydrous methylene blue.

Document control

Document	Rexar Technical Compound Datasheet
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Revision	10 September 2026
Status	Reference information; not a certificate of analysis

Disclaimer

This document is provided for chemical identification and laboratory reference purposes. It does not certify batch purity or replace lot-specific analytical documentation. Users remain responsible for suitability, regulatory status and safe handling.