



3050 Spruce Street  
Saint Louis, Missouri 63103 USA  
Telephone 800-325-5832 • (314) 771-5765  
Fax (314) 286-7828  
email: techserv@sial.com  
sigma-aldrich.com

## Product Information

### CHLORAMPHENICOL SIGMA REFERENCE STANDARD

Product No. **C6455**

Lot No: 16H5955

Storage Temperature: 2 - 8°

Formula:  $C_{11}H_{12}Cl_2N_2O_5$

Formula Weight: 323.13

CAS No: 56-75-7

Synonyms: Acetamide, 2,2-dichloro-*N*-[2-hydroxy-1-(hydroxymethyl)-2-(4-nitrophenyl)ethyl]-, [*R*-(*R*<sup>\*</sup>,*R*<sup>\*</sup>)]-.  
*D-threo*-(-)-2,2-Dichloro-*N*-[β-hydroxy-α-(hydroxymethyl)-*p*-nitrophenethyl]acetamide.

#### Product Description

This product meets USP specifications (Current through USP 23, 4th Supplement), and is traceable to USP Reference Standard lot M.

Keep container tightly closed. Protect from light. Store in a cold place. Do not dry before using.

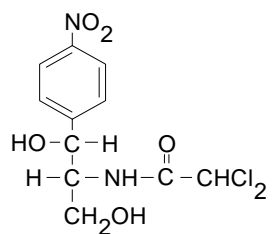
TEST	USP 23 SPECIFICATIONS	Result Sigma R.S. Lot 16H5955
Infrared absorption spectrum KBr dispersion (197K)	compares to standard	conforms to USP RS lot M
Identification B High pressure liquid chromatography (621)	retention time of the major peak in the chromatogram of the assay preparation corresponds to that in the standard preparation as obtained in the assay	conforms to USP RS lot M
Melting range (741)	between 149° and 153°C	150-151°C
Specific rotation, $[\alpha]_D^{25}$ 50 mg, undried/mL solution in dehydrated alcohol (781S)	between + 17.0° and + 20.0°	+ 17.8°
Crystallinity (695)	meets requirements	meets requirements
pH aqueous suspension (791)	between 4.5 and 7.5	6.1
Chromatographic purity	no impurity greater than 1% and the sum of impurities does not exceed 2%	passes
Assay — high pressure liquid chromatography (621)	not less than 97.0% and not more than 103.0%	100.2%
HPLC Column L1 Supelco Supelcosil LC-18 4.6 mm x 10 cm, 5 μm particles (Cat. No. 5-9209)		

See reverse side for IR spectrum of Sigma Reference Standard.

**CHLORAMPHENICOL  
SIGMA REFERENCE STANDARD**

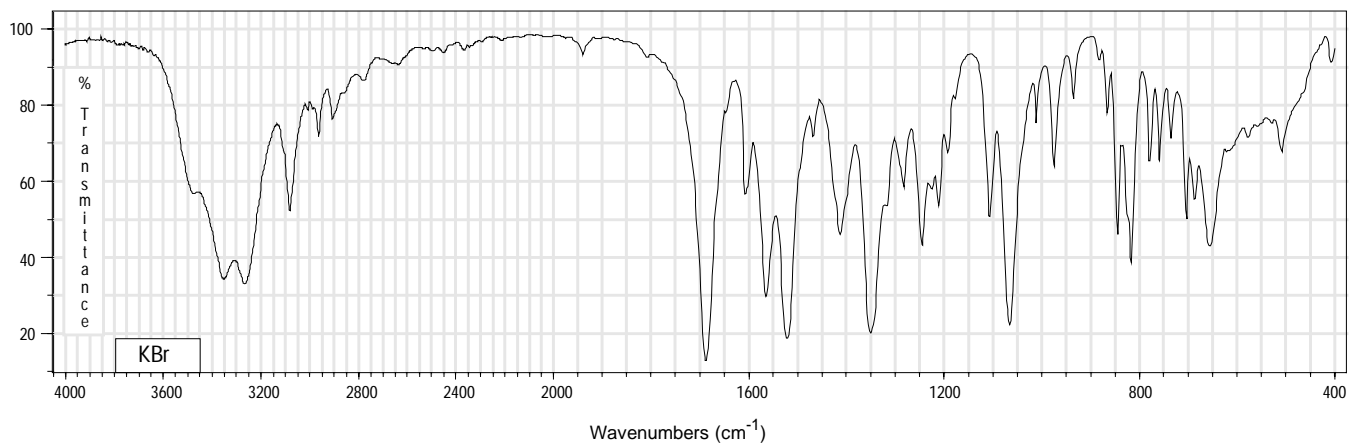
Product No. **C6455**

Lot 16H5955



**INFRARED SPECTRUM**

KBr dispersion



Sigma brand products are sold through Sigma-Aldrich, Inc.  
Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications.  
Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply.  
Please see reverse side of the invoice or packing slip.