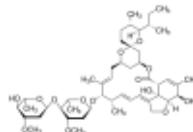


Certificate of Analysis

Product Name:
Ivermectin

Product Number: I8898
Batch Number: MKCZ6135
Brand: SIGMA
MDL Number: MFCD00869511
Storage Temperature: Store at 2 - 8 °C
Quality Release Date: 23 SEP 2025
Recommended Retest Date: SEP 2028



Test	Specification	Result
Appearance (Color)	White to Off-White	White
Appearance (Form)	Powder	Powder
Solubility (Color)	Colorless to Faint Yellow	Colorless
Solubility (Turbidity)	Clear	Clear
50 mg/ml, Methyl Ethyl Ketone		
Water (by Karl Fischer)	≤ 1.0 %	0.2 %
Solvent Content (by GC)	≤ 5.0 %	4.0 %
EtOH		
Solvent Content (by GC)	≤ 3.0 %	2.7 %
Formamide		
Purity (HPLC)	≥ 90 %	95 %
Ivermectin B1A		
Isomer	≤ 5 %	1 %
Ivermectin B1B		
Recommended Retest Period	-----	-----
3 Years		

Larry Coers, Director
Quality Control
Milwaukee, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.



1. Identification

Catalogue Number

1940817

Lot Number

14-TKN-35-2

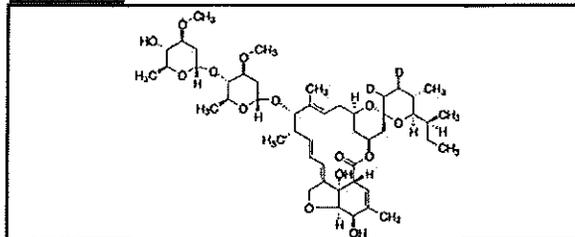
Product Name

Ivermectin B1a-D2

Synonyms

5-O-Demethyl-22,23-dihydro-avermectin A1a-D2; 2,23-Dihydroavermectin B1a-D2; Dihydroavermectin B1a-D2;

Structure



CAS Number

N/A

Solubility

DMSO (Slightly), Methanol (Slightly)

Shipping Condition

This Product Is Stable To Be Shipped At Room Temperature

Molecular Formula

C48H72D2O14

Source of Product

Synthetic

Long Term Storage Conditions

-20°C, Inert atmosphere

Molecular Weight

877.11

Purity

>95%

2. Warnings

Not Determined

3. Analytical Information

Tests

Specifications

Results

Appearance

Pale Beige to Brown Solid

Beige Solid

NMR

Conforms to Structure

Conforms

HPLC Purity

>95%

95.15% (245 nm)

MS

Conforms to Structure

Conforms

Isotopic Purity

>95%

96.4%

Additional Information

Normalized Intensity: $d_0 = 1.12\%$, $d_1 = 4.94\%$, $d_2 = 93.95\%$

Purity is based on the analytical results of the tests performed. NMR and Elemental Analysis (if available) may have an accuracy of $\pm 2\%$. Isotopic purity is based on mass distribution observed. The contents of the specifications are subject to change without advance notice, and the specification values displayed here are the most up to date values.

4. Signatures

Reviewed by

Reviewed by

C of A Approved by

Test Date

Retest Date

A. Vijaya

Toni Rantanen

Chanell Chu

1/16/2025

1/14/2029

Vijaya Annapareddy

Toni Rantanen

Chanell Chu

Product Quality Specialist

Manager, Quality Assurance

Quality Assurance Associate



Toronto Research Chemicals
products for innovative research

Toronto Research Chemicals Inc.
101 Milani Blvd.
Vaughan, ON L4H 4M4
CANADA

Delivery Address

Texas A & M University (primary)
445 Agronomy Road
MS 2114
College Station, TX 77843
UNITED STATES

Invoice Address

Texas A&M University
483 Agronomy Rd
4471 TAMU
TX
College Station
77843
US

Contact: Morgan Crump

Customer Number

20049833

Incoterms

DDP

Date

10/20/2025

Shipment ID

3576842

Customer PO No: Texas A & M University (primary)/ LGC Order No: X11648171

Delivery Note No 3558532

Pos	Product Code / Description	Unit	Ordered	Delivered	Remaining	Storage
1	TRC-I940817-1MG Ivermectin B1a-D2	1mg	1	1	0	-20°C

Order No: X11648171, PO No: Texas A & M University (primary)
UN2811
DG:Yes, Ship temp: RT, Class: 6.1

PLEASE NOTE: Storage conditions according to the manufacturer's specifications on the product label or documentation are binding.

Dispatch by International Priority

Delivery Terms DDP, Delivered, Duty paid

1. All of our products should be handled only by qualified personnel trained in laboratory procedures, and familiar with the potential hazards.
2. Information is not available on the possible hazards of many compounds. The absence of a warning must not be interpreted as an indication of safety.
3. This shipment has been insured at the buyer's expense. If assistance is required in filing for an incomplete or damaged shipment we would be happy to help you.
4. The material in this shipment is not animal or biological in origin. This material is to be used for laboratory research only.
5. Products are shipped at room temperature unless otherwise specified. Storage conditions according to the manufacturer's specifications on the product label or documentation are binding.
6. All materials should be stored below 0° C for maximum stability unless otherwise stated on materials label.
7. By purchasing any applicable product from TRC, you authorize TRC to act as your agent for the purpose of preparing Toxic Substances Control Act (TSCA) certification statements.