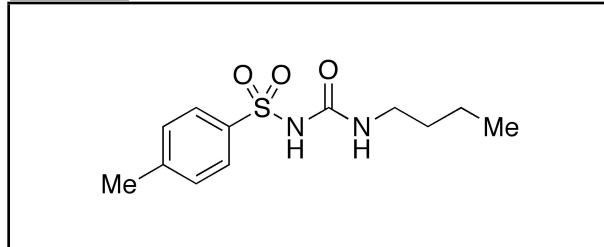


CERTIFICATE OF ANALYSIS**1. Identification**

<u>Catalogue Number</u>	<u>Lot Number</u>	<u>Structure</u>
TRC-T535150	1-SCC-101-1	
<u>Product Name</u>		
Tolbutamide		
<u>Synonyms</u>		
N-[(Butylamino)carbonyl]-4-methyl-benzenesulfonamide; 1-Butyl-3-(p-tolylsulfonyl)urea; Tolylsulfonylbutylurea; 3-(p-Tolyl-4-sulfonyl)-1-butylurea; N-Butyl-N'-(4-methyl-phenylsulfonyl)urea; Artosin; Artozin; Mabenol; Diabetol; Orabet; Oralin; Orezan; Orinase; Orinaz; Oterben; Pramidex; Rastinon; NSC 23813; NSC 87833;		
<u>CAS Number</u>	<u>Solubility</u>	<u>Shipping Condition</u>
64-77-7	Chloroform (Slightly), Methanol (Slightly)	This Product Is Stable To Be Shipped At Room Temperature
<u>Molecular Formula</u>	<u>Source of Product</u>	<u>Long Term Storage Conditions</u>
C ₁₂ H ₁₈ N ₂ O ₃ S	N/A	4°C
<u>Molecular Weight</u>	<u>Purity</u>	
270.35	98%	

2. Warnings

Not Determined

3. Analytical Information

<u>Tests</u>	<u>Specifications</u>	<u>Results</u>
Appearance	White to Off-White Solid	Off-White Solid
NMR	Conforms to Structure	Conforms
Elemental Analysis	Conforms	%C: 53.54, %H: 6.97, %N: 10.49
HPLC Purity	>95%	99.93% (230 nm)
MS	Conforms to Structure	Conforms

Additional Information

TLC Conditions: SiO₂; Dichloromethane : Methanol = 9 : 1; Visualized with UV and AMCS; Single Spot, R_f = 0.60.
 Elemental Analysis: (Theoretical) %C: 53.31, %H: 6.71, %N: 10.36

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

<u>Reviewed by</u>	<u>Reviewed by</u>	<u>C of A Approved by</u>	<u>Test Date</u>	<u>Retest Date</u>
		HBN My Nguyen	10/2/2019	9/30/2029