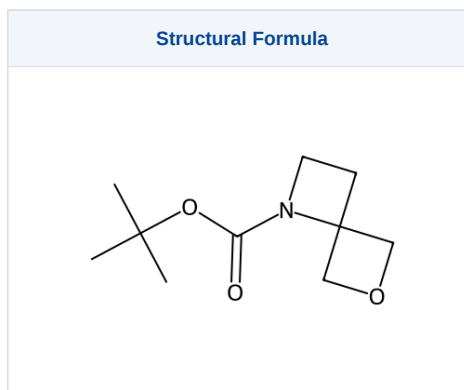


CERTIFICATE OF ANALYSIS

Standard product specification — applicable to all consignments of this product and grade supplied by Scapex Exports Pvt. Ltd., manufacturer and supplier of quality chemicals.

Product Name	1-Boc-6-Oxa-1-Azaspiro[3.3]Heptane
C.A.S. Number	1245816-27-6
Molecular Formula	C ₁₀ H ₁₇ NO ₃
Molecular Weight	199.25
Grade / Standard	Fine chemical grade — assay on specification
Physical Form	Clear colorless liquid
Product Category	Solvents & Glycols
Country of Origin	India



ANALYTICAL RESULTS

S. No.	Test Parameter	Specification	Result	Method
1	Description	Clear colorless liquid	Complies	Visual
2	Identification	Conforms to the structure of the substance	Complies	FTIR / Chemical test
3	Purity (by GC)	Not less than 99.5 % (area)	99.84	Gas Chromatography
4	Colour (APHA / Pt-Co)	Not more than 10	6	ASTM D1209
5	Water Content	Not more than 0.05 % w/w	0.0154	Karl Fischer titration
6	Acidity (as acetic acid)	Not more than 0.002 % w/w	0.0007	Titrimetry
7	Residue on Evaporation	Not more than 0.001 % w/w	0.0003	Gravimetry
8	Specific Gravity at 25 °C	As per specification	Conforms	Pycnometry / ASTM D4052
9	Refractive Index at 20 °C	As per specification	Conforms	Refractometry / ASTM D1218
10	Structure	Conforms to reference structure	Complies	FTIR / NMR

Remarks

Material supplied against this specification is analysed on every production lot and **conforms** to the limits stated above in all tested parameters. Results shown are the typical values obtained for this grade.

Retained samples are held against every export consignment. Store in tightly closed original packing, in a cool, dry, well-ventilated place away from incompatible materials and direct sunlight.

Checked and Approved by

Prem Panchal
Quality Assurance
Scapex Exports Pvt. Ltd.

This document sets out the standard specification for the product named above and applies to all consignments of this grade. It is issued by Scapex Exports Pvt. Ltd. as manufacturer and supplier. Refer to the Material Safety Data Sheet (MSDS) before handling.