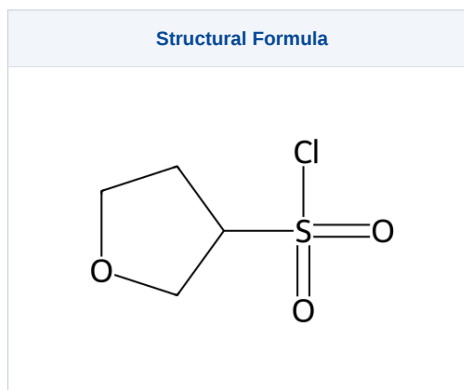


CERTIFICATE OF ANALYSIS

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	Tetrahydrofuran-3-sulfonyl chloride
C.A.S. Number	1207346-29-9
Molecular Formula	C ₄ H ₇ ClO ₃ S
Molecular Weight	170.62
Grade / Standard	97% min.
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	Assay	Not less than 97.0 % w/w	97.53	Gas Chromatography
4	Purity (by GC)	Not less than 99.5 % (area)	99.92	Gas Chromatography
5	Colour (APHA / Pt-Co)	Not more than 10	2	ASTM D1209
6	Water Content	Not more than 0.05 % w/w	0.0131	Karl Fischer titration
7	Acidity (as acetic acid)	Not more than 0.002 % w/w	0.0006	Titrimetry
8	Residue on Evaporation	Not more than 0.001 % w/w	0.0003	Gravimetry
9	Specific Gravity at 25 °C	0.880 – 0.886	0.8841	Pycnometry / ASTM D4052
10	Refractive Index at 20 °C	1.4050 – 1.4090	1.4080	Refractometry / ASTM D1218
11	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.