

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	Undecanoic gamma-Lactone
C.A.S. Number	104-67-6
Molecular Formula	—
Molecular Weight	—
Grade / Standard	98% min
Physical Form	Colorless to pale yellow liquid
Product Category	Flavour & Fragrance Ingredients
Country of Origin	India

ANALYTICAL RESULTS

S. No.	Test Parameter	Specification	Result	Method
1	Description	Colorless to pale yellow liquid	Complies	Visual
2	Identification	Conforms to the structure of the substance	Complies	FTIR / Chemical test
3	Assay	Not less than 98.0 % w/w	98.73	Titrimetry / Instrumental
4	Odour / Organoleptic	Characteristic; matches reference	Conforms	Sensory panel
5	Refractive Index at 20 °C	As per specification	Conforms	Refractometry
6	Specific Gravity at 25 °C	As per specification	Conforms	Pycnometry
7	Optical Rotation	As per specification	Conforms	Polarimetry
8	Purity (by GC)	Not less than 98.0 % (area)	99.06	Gas Chromatography
9	Acid Value	Not more than 1.0 mg KOH/g	0.39	Titrimetry
10	Heavy Metals (as Pb)	Not more than 10 ppm	Less than 2 ppm	ICP-MS
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.