

Product Information/ Analysis

Invoice# 50431

Ship date: 2/5/2021

Description

Type:	Pine Oil
Form:	Liquid (combustible)
Chemical Class:	Essential oil
CAS-Number:	94266-48-5 and 8002-09-3
EC number:	304-455-9
Product Code:	UNIPINE85
Lot Number:	D3C102A (IFF Lot# 0005092393)
Manufacturer:	International Flavors and Fragrances
Date of Manufacture:	Nov. 26, 2012
Packaged	Feb. 05, 2021

Note: pine oil consists mainly of α -terpineol and other cyclic terpene alcohols. It may also contain terpene hydrocarbons, ethers, and esters.

Chemical Analysis	Test Results	Specifications		Unit
		Min	Max	
Primary Odor Evaluation	According to Standard			
Visual Color and Appearance	According to Standard			
Color Description	Colorless to Pale Yellow			
Refractive Index at 20°C	1.4821	1.4790 – 1.4840		
Relative Density D20/4	0.9275	0.9240 – 0.9310		gm/ml
Specific Gravity D25/25	0.9261	0.9230 – 0.9300		gm/ml
Water content	0.03	0.0 – 0.50		%
Limonene	3.42	0.00 – 8.00		%
Dipentene	12.53	10.00 – 15.00		%
Alpha+Gamma	68.80	55.00 – 75.00		%
Sum Alcohols	87.47	85.00 – 90.00		%

IFF certifies that the quality of this product conforms to the product specification.

This is an excerpt of electronic documents we have one file for this specific lot and product.

Approved by

Quality Control Manager

Storage and expiration:

- Store in sealed containers in a dry and cool location and away from sunlight.
- Keep container closed. Product does not expire or expiration depends on the application and quality requirements.
- Retest every 3 years to ensure the quality.
- Retest prior to use.