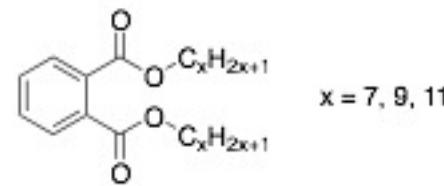


**CERTIFICATE OF ANALYSIS****1. Identification**Catalogue Number

D414900

Lot Number

4-LIJ-138-2

StructureProduct Name

Dialkyl Phthalate (Alkyl= Heptyl:Heptyl, Nonyl:Nonyl, Undecyl:Undecyl, Heptyl:Nonyl, Heptyl:Undecyl, Nonyl:Undecyl)

Synonyms

Di-(heptyl/nonyl/undecyl)-phthalate; Dialkyl(C7-11-branched and linear)phthalate; Di-C7-11-branched And Linear Alkyl Esters 1,2-Benzenedicarboxylic Acid;

CAS Number

68515-42-4

Solubility

Chloroform (Sparingly), Ethyl Acetate (Sparingly)

Shipping Condition

This Product Is Stable To Be Shipped At Room Temperature

Molecular Formula $C_8H_4O_4+2(C_xH_{2x+1})$ Source of Product

Synthetic

Long Term Storage Conditions

4°C

Molecular Weight

N/A

Purity

N/A

**2. Warnings**

Not Determined

**3. Analytical Information**TestsSpecificationsResults

Appearance

Colourless Oil

Clear Colourless Oil

NMR

Conforms to Structure

Conforms

MS

Conforms to Structure

Conforms

LCMS

Conforms to Structure

Conforms

Additional Information

LC-MS: 10.8% x = 7,7; 22.1% x = 7,9; 33.4% x = 9,9 and/or x = 7,11; 22.5% x = 9,11 ; 11.1% x = 11,11

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**Reviewed byReviewed byC of A Approved byTest DateRetest Date

Sarjeet Kaur  
Product Quality Specialist

Toni Rantanen  
Manager, Quality Assurance

Chanell Chu  
Jr. Quality Assurance

6/24/2023

6/22/2027