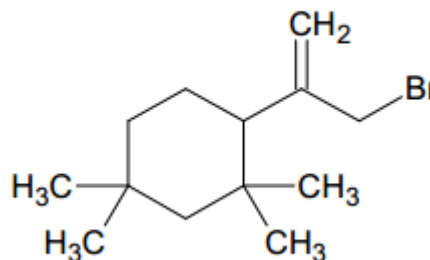


Certificate of Analysis

Compound: 2-(3-bromoprop-1-en-2-yl)-1,1,5,5-tetramethylcyclohexane

Formula: C₁₃H₂₃Br

Structure:



CAS-no.: Not available

Molecular weight: 259.2 g/mol

Catalog no.: ASAS-001

Batch no.: #20180724

Retest date: 2019-09-27

Identity (NMR): Confirms to structure

Purity (quan NMR): 88.8% (see Spectral Service AG study report ASL75033)

Purity (GC-MS area%): 92.88% (see page 2)

Storage: 2-8 °C, protected from light

MSDS: Not available

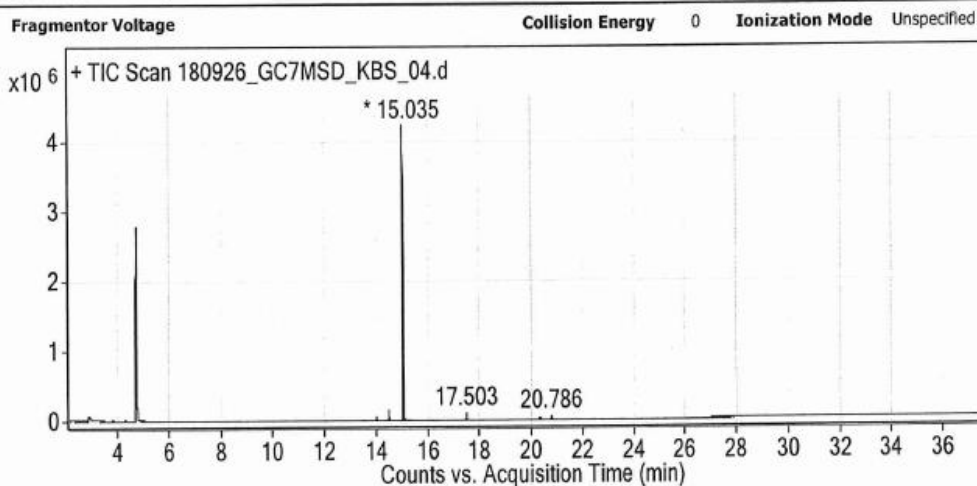
For laboratory use only

GC-MS chromatogram of C₁₃H₂₃Br, batch #20180724

(Analysis performed at A&M Stabtest GmbH, 50126 Bergheim)

Data Filename	180926_GC7MSD_KBS_04.D	Sample Name	Br-C13 Rubber Oligo #20180724
Sample Type		Position	3
Instrument Name	GC7	User Name	STABTEST\Schuett
Acq Method	ST12035-AM-03.M	Acquired Time	2018-09-26 2:30:07 PM
IRM Calibration Status	Not Applicable	DA Method	default.m
Comment	~100 µg/mL Aceton		
Expected Barcode		Sample Amount	
Dual Inj Vol	1	TuneName	lomass_F1.u
TunePath	D:\MassHunter\GCMS\1\5975	MSFirmwareVersion	7.02.20
OperatorName	STABTEST\Schuett	RunCompletedFlag	True
Acquisition SW Version	MassHunter GC/MS Acquisition B.07.00 SP2.1654 29-Aug-2013 Copyright © 1989-2013 Agilent Technologies, Inc.		

User Chromatograms



run no. / batch no.	Peak No.	RT	Area	% Area	proposed substance
4 #20180724	1	14.011	61796.11	0.82%	unknown
	2	14.493	228620.26	3.02%	unknown
	3	15.035	7019594.63	92.88%	C ₁₃ H ₂₃ Br
	4	17.503	152434.85	2.02%	C ₂₁ H ₄₀
	5	20.337	16388.99	0.22%	unknown
	6	20.786	79159.51	1.05%	unknown

André Schuett

2018-09-27

Andre Stratmann

Date