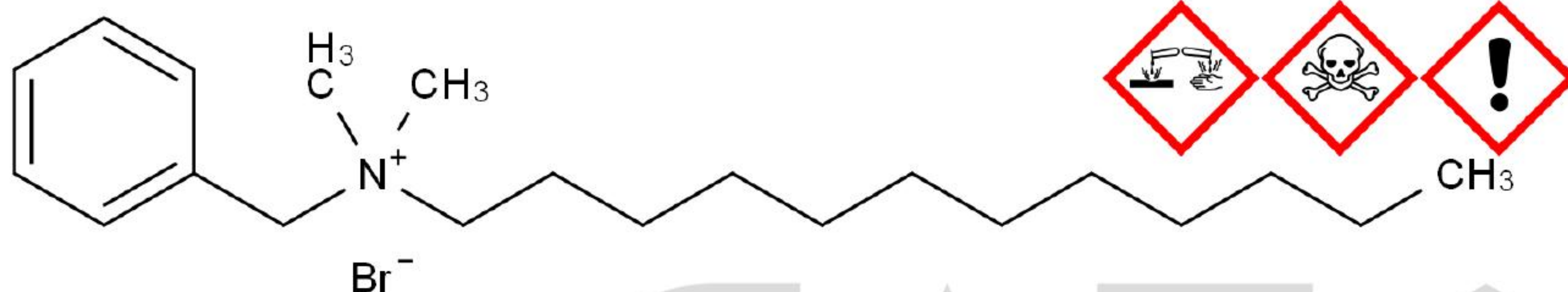


Certificate of Analysis

Reference Material & Standard

Product Name:	Benzyldodecyldimethylammonium Bromide	Catalogue Number:	CCHM701517
Synonyms:	N/A	Lot Number:	1204-RB-0021
CAS Number:	7281-04-1	Expiry Date:	Sep 25, 2027
Molecular Formula:	C ₂₁ H ₃₈ N Br	Storage:	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	304.53 79.90		
Chemical Structure:			



Test Items	Method	Results
Appearance	Visual inspection	White Solid
Identification	LCMS&HNMR	Confirmed
Purity	ELSD	99.153%
Loss On Drying	TGA	1.6318%
Assay		97.5%
Uncertainty		±2.0%

Comment:

1. The calculation of the 100% method follows the formula (calculated on the non-dried basis):

$$\text{Assay (\%)} = (100\% - \text{Loss On Drying}) * \text{Purity ELSD (\%)} / 100\%$$

Loss On Drying is considered as absolute effect, ELSD purity is considered as relative effect.

2. The uncertainty values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Signature:

Prepared by:

Lisa

Reviewed by:

Lisa

Aporoved by General Manager:

David

Date: Sep 26, 2023

Date: Sep 26, 2023

Date: Sep 26, 2023

