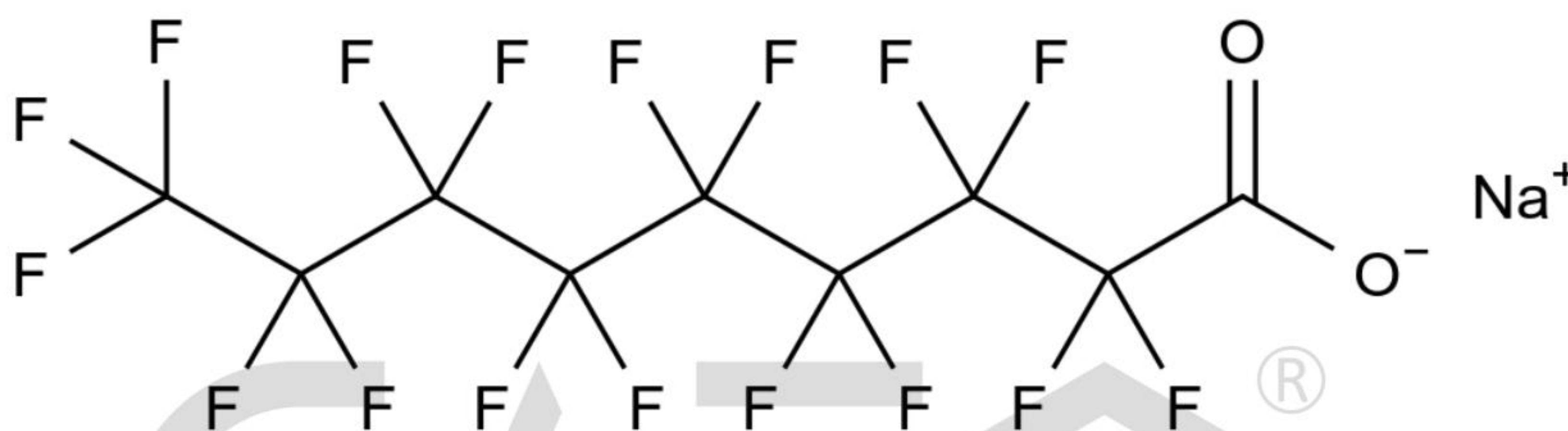


Certificate of Analysis

Reference Material & Standard

Product Name:	Sodium perfluorononanoate	Catalogue Number:	CCHM705423
Synonyms:	N/A	Lot Number:	0511-RE-0101
CAS Number:	21049-39-8	Expiry Date:	May 15, 2027
Molecular Formula:	C ₉ F ₁₇ O ₂ Na	Storage:	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	463.07 22.99		

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	White Powder
Identification	LCMS&FNMR	Confirmed
Purity	ELSD	100.000%
Water Content	Karl Fischer	0.3195%
Assay		99.7%
Uncertainty		±2.0%

Comment:

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

$$\text{Assay (\%)} = (100\% - \text{Water Content}) * \text{Purity ELSD (\%)} / 100\%$$

Water Content 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:

Hin Lam

Reviewed by:

Lisa

Approved by General Manager:

David

Date: May 16, 2023

Date: May 17, 2023

Date: May 17, 2023

