

Xinjiang Cooland Technology Co., Ltd.  
Room 2-3-1, Building C  
Altay Mass Entrepreneurship  
and Innovation Incubation Base

No. 186, Tuanjie South Road  
Altay City, Altay Region  
Xinjiang, 315000 China

Durch die DAkkS nach DIN EN ISO/IEC 17025  
akkreditiertes Prüflaboratorium



Nach § 15 Abs. 4 TrinkwV 2001 zugelassene  
Trinkwasseruntersuchungsstelle

Schweitenkirchen, 30.01.2024  
40-FK

## Certificate

**Report No. 405637**

<b>Product:</b>	<b>Cooland Water, bottled in 0.33 L PET Batch: 20230318</b>
<b>Holder of Certificate:</b>	<b>Xinjiang Cooland Technology Co., Ltd.</b> Room 2-3-1, Building C Altay Mass Entrepreneurship and Innovation Incubation Base  No. 186, Tuanjie South Road Altay City, Altay Region Xinjiang, 315000 China
<b>Scope of Certificate:</b>	The bottled Cooland Water is low mineralized with a specific electrical conductivity of 236 $\mu\text{S}/\text{cm}$ . The pH value of the Cooland Water is in the neutral range at 7.4 of groundwater. The hardness of water of 1.9 mmol/L total alkalinity at pH 4.3 is to be classified as low. The hydrochemical composition of the bottled water sample shows a calcium - hydrogen carbonate ( $\text{Ca-HCO}_3$ ) water type. The stable water isotope deuterium was determined by $-114.7\text{‰}_{\text{VSMOW}}$ .
<b>Valid from:</b>	15 Jan 2024
<b>Valid until:</b>	In accordance with the EU Directive 2009/54/EC and the German Mineral and Table Water Ordinance, it is recommended to check the stability of the mineralisation annually. We recommend following this testing interval.

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**Applied Standard(s):** see appendix

**Facility:** **Xinjiang Cooland Technology Co., Ltd.**  
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**Composition:**

Isotopes:

Deuterium ( $\delta^2\text{H-H}_2\text{O}$ ): -114.7 ‰<sub>ovSMOW\*</sub>  
\*Vienna Standard Mean Ocean Water

Physical-chemical  
parameters:

Spec. electr. conductivity	236	μS/cm
pH value	7.4	
Total alkalinity (pH 4.3)	1.9	mmol/l

Hydrochemistry:

Sodium ( $\text{Na}^+$ )	5.4	mg/l
Potassium ( $\text{K}^+$ )	1.5	mg/l
Calcium ( $\text{Ca}^{2+}$ )	34	mg/l
Magnesium ( $\text{Mg}^{2+}$ )	5.5	mg/l
Ammonium ( $\text{NH}_4^+$ )	< 0.05	mg/l
Hydrogen carbonate ( $\text{HCO}_3^-$ )	116	mg/l
Chloride ( $\text{Cl}^-$ )	1.1	mg/l
Sulphate ( $\text{SO}_4^{2-}$ )	16	mg/l
Nitrate ( $\text{NO}_3^-$ )	11	mg/l
Nitrite ( $\text{NO}_2^-$ )	< 0.01	mg/l

  
Dr. Eichinger  
(CEO)

Xinjiang Cooland Technology Co., Ltd.  
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Nach § 15 Abs. 4 TrinkwV 2001 zugelassene  
Trinkwasseruntersuchungsstelle

Schweitenkirchen, 15.01.2024  
23-FK

## Report No. 405637

page 1 of 3

Sample name:	Cooland Deuterium		
Project:	Cooland Technology - Deuterium		
Customer:	Xinjiang Cooland Technology Co., Ltd.		
Offer:	546-2023 / JS		
Lab. no.:	405637	Sample:	Liquid sample
Batch:	20230318	Sampling:	Customer
Lab. entry:	19.09.2023	Analysis start:	19.09.2023
		Analysis finish:	13.10.2023

Parameter	Result	Unit
PHYSICAL-CHEMICAL PARAMETER		
Spec. electr. conductivity (25 °C) Lab.	236	µS/cm
pH value Lab.	7.4	
Total alkalinity (pH 4.3) Lab.	1.9	mmol/l
CATIONS		
Sodium (Na <sup>+</sup> )	5.4	mg/l
Potassium (K <sup>+</sup> )	1.5	mg/l
Calcium (Ca <sup>2+</sup> )	34	mg/l
Magnesium (Mg <sup>2+</sup> )	5.5	mg/l
Ammonium (NH <sub>4</sub> <sup>+</sup> )	< 0.05	mg/l

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Sample name:	Cooland Deuterium		
Project:	Cooland Technology - Deuterium		
Customer:	Xinjiang Cooland Technology Co., Ltd.		
Offer:	546-2023 / JS		
Lab. no.:	405637	Sample:	Liquid sample
Batch:	20230318	Sampling:	Customer
Lab. entry:	19.09.2023	Analysis start:	19.09.2023
		Analysis finish:	13.10.2023

Parameter	Result	Unit
ANIONS		
Hydrogen carbonate (HCO <sub>3</sub> <sup>-</sup> )	116	mg/l
Chloride (Cl <sup>-</sup> )	1.1	mg/l
Sulphate (SO <sub>4</sub> <sup>2-</sup> )	16	mg/l
Nitrate (NO <sub>3</sub> <sup>-</sup> )	11	mg/l
Nitrite (NO <sub>2</sub> <sup>-</sup> )	< 0.01	mg/l
DEVIATION ANION TO CATION SUM		
Deviation cation to anion sum	1.48	%
SUM AND SINGLE PARAMETER		
Water hardness calculated	1.07	mmol/l
Water hardness calculated	6.01	°dH
ISOTOPES		
Deuterium (δ <sup>2</sup> H-H <sub>2</sub> O)	-114.7	‰ <sub>VSMOW</sub>

**Project:** Cooland Technology - Deuterium  
**Customer:** Xinjiang Cooland Technology Co., Ltd.

Parameter	Method
pH value Lab.	DIN EN ISO 10523 (C5): 2012-04
Spec. electr. conductivity (25 °C) Lab.	DIN EN 27888 (C8):1993-11
Total alkalinity (pH 4.3) Lab.	DIN 38409-H7:2005-12
Sodium (Na <sup>+</sup> )	DIN EN ISO 14911 (E34): 1999-12
Potassium (K <sup>+</sup> )	DIN EN ISO 14911 (E34): 1999-12
Calcium (Ca <sup>2+</sup> )	DIN EN ISO 14911 (E34): 1999-12
Magnesium (Mg <sup>2+</sup> )	DIN EN ISO 14911 (E34): 1999-12
Ammonium (NH <sub>4</sub> <sup>+</sup> )	Merck Spectroquant 1.14752: 2013-12
Hydrogen carbonate (HCO <sub>3</sub> <sup>-</sup> )	calculated by alkalinity
Chloride (Cl <sup>-</sup> )	DIN EN ISO 10304-1 (D20): 2009-07
Sulphate (SO <sub>4</sub> <sup>2-</sup> )	DIN EN ISO 10304-1 (D20): 2009-07
Nitrate (NO <sub>3</sub> <sup>-</sup> )	DIN EN ISO 10304-1 (D20): 2009-07
Nitrite (NO <sub>2</sub> <sup>-</sup> )	Merck Spectroquant 1.14776: 2017-01
Deviation cation to anion sum	calculated
Water hardness calculated	calculated
Deuterium (δ <sup>2</sup> H-H <sub>2</sub> O)	QMA 504-2/23: 2012-02; Cavity-Ringdown-Spectrometry (CRDS); related to standard VSMOW: 1σ= ± 1,5 ‰

### Legend

*	Analysis in cooperation with accredited resp. qualified extern labs
n.m.	not measured, concentration too small
<	not detectable
-	not ordered
x	qualified method with pending accreditation

### Notes

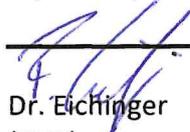
The results relate only to the measured samples.

Stored samples of solid samples and liquid hydrocarbon samples will be given to waste disposal 8 weeks after reporting, stored samples of aqueous samples 16 weeks after reporting - if there is no other agreement.

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 Dr. Eichinger  
 (CEO)  
 15.01.2024