

# Deutsche Akkreditierungsstelle GmbH

## Annex to the Accreditation Certificate D-PL-14237-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: **09.05.2022**

Date of issue: 08.06.2023

Holder of certificate:

**K-UTEC AG Salt Technologies**  
**Departments of physico-chemical analytics & geophysics**  
**Am Petersenschacht 7, 99706 Sondershausen**

Tests in the fields:

**physico-chemical and chemical investigations of salts and salt saline solutions;**  
**determination of vibrations;**  
**module immission control**

*The management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of testing laboratories. Laboratories that conform to the requirements of this standard, operate generally in accordance with the principles of DIN EN ISO 9001.*

*The certificate together with the annex reflects the status as indicated by the date of issue.  
The current status of any given scope of accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH at <https://www.dakks.de/en/content/accredited-bodies-dakks>.*

Abbreviations used: see last page

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**This document is a translation. The definitive version is the original German annex to the accreditation certificate.**

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**1 Analysis of salts and saline solutions**

**1.1 Analysis of saline solutions (up to > 300 g/l salt) for the following parameters**

K-UTEC 5 2017-11	Determination of nitrate nitrogen with phenol taking into account high chloride concentrations (photometric)
K-UTEC 6 2016-04	Determination of 35 elements in saline solutions with ICP-AES
K-UTEC 15 2016-05	Determination of the COD in salt-rich solutions and waters (oxidimetric)
K-UTEC 82 2016-03	Determination of filterable substances in saline solutions
K-UTEC 104 2016-04	Determination of sulfate in saline solutions
K-UTEC 108 2016-03	Determination of the pH-value in saline solutions
K-UTEC 109 2016-03	Determination of the electrical conductivity in saline solutions
K-UTEC 110 2016-03	Determination of sodium and potassium in saline solutions with flame photometry
K-UTEC 112 2016-03	Determination of magnesium and calcium in saline solutions (complexometric)
K-UTEC 114 2016-03	Automated potentiometric determination of chloride in saline solutions
K-UTEC 115 2016-03	Photometrical determination of nitrite nitrogen in saline solutions
K-UTEC 116 2016-04	Determination of ammonium nitrogen in saline solutions by use of the distillation method for the separation of interfering substances
K-UTEC 117 2016-03	Photometrical determination of total phosphorus concentration and ortho-phosphate in saline solutions
K-UTEC 118 2016-03	Determination of arsenic in saline solutions with AAS

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K-UTEC 120 2016-03	Photometrical determination of chromium(VI) in saline solutions
K-UTEC 121 2016-03	Determination of mercury in saline solutions with AAS
K-UTEC 122 2016-03	Determination of TOC and TIC in saline solutions with automated catalytic combustion and IR-detection
K-UTEC 123 2016-03	Photometrical determination of total cyanide in saline solutions
K-UTEC 124 2016-03	Photometrical determination of the phenol index in saline solutions
K-UTEC 126 2016-03	Determination of CaSO <sub>4</sub> , CaCl <sub>2</sub> , MgSO <sub>4</sub> , MgCl <sub>2</sub> , K <sub>2</sub> SO <sub>4</sub> , KCl, Na <sub>2</sub> SO <sub>4</sub> and NaCl in saline solutions by calculation from the individual ions

**1.2 Physico-chemical analysis**

DIN 38404 - C 5 2009-07	Determination of the pH value (Modification: Application for saline solutions)
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**1.3 Anions**

DIN 38405 - D 1-2 1985-12	Determination of chloride ions (Modification: Application for saline solutions)
DIN 38405 - D 5-2 1985-01	Determination of sulfate ions (Modification: Application for saline solutions)
DIN EN 26777 (D 10) 1993-04	Water quality; determination of nitrite, molecular absorption spectrometric method (Modification: Application for saline solutions)
DIN 38405 - D 13-1-3 1981-02	Determination of total cyanide (Modification: Application for saline solutions; <i>determination of anticaking agent potassium hexacyanoferrate by calculation from the total cyanide percentage</i> )
DIN EN ISO 11969 (D 18) 1996-11	Water quality: Determination of arsenic – Atomic absorption spectrometric method (hydride technique) (Modification: Application for saline solutions)

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**1.6 Summary parameters**

DIN EN 13137 2001-12	Characterization of waste – determination of TOC in waste, sludges and sediments <i>(Modification: Application for salts; also determination of TC and TIC -&gt; calculation of carbonate)</i>
DIN EN 16169 2012-11	Sludges, processed biowaste and soil – determination of Kjeldahl nitrogen <i>(Modification: Application for salts)</i>
Werkstandard KALI 97-003/01 Kapitel 2.1.1. bzw. 2.2.1. 1987-12	Determinations of water- and acid-insoluble stuffs (but 800 °C)
Werkstandard KALI 97-003/01 Kapitel 2.3.3. 1987-12	Determination of total water content

**2 Fields of activities regulated by immission control law**

**Guidelines after module immission control and DIN 45688:2014**

<b>Group VI: Determination of Vibrations</b>			
<b>Norm / Guideline / Technical rule</b>		<b>QM-Document</b>	<b>Comment, Location</b>
<b>Norm</b>	<b>Title</b>		
DIN 4150-1 2001-06	Vibrations in buildings; Part 1: Prediction of vibration parameters	MA702-150 2018-04	Same location
DIN 4150-2 1999-06	Vibrations in buildings; Part 2: Effects on persons in buildings	MA702-150 2018-04	Same location
DIN 4150-3 2016-12	Vibrations in buildings; Part 3: Effects on structures	MA702-150 2018-04	Same location
LAI- Vibration Guidelines 2018-03	References to measurement, evaluation and reduction of vibration immissions	MA702-150 2018-04	Same location

The methods given correspond to the requirements of  
„Certificate of Expertise for Investigations in the area of Immission control“  
“LAI Module Immission Control“ (updated by the L/W/V in the version of 30th January, 2018).

The competence in the testing and technical task areas  
of Group VI  
subject to immission control law is confirmed.

**Used abbreviations:**

BImSchV	Bundesimmissionsschutzverordnung (Federal immission control ordinance)
DIN	Deutsches Institut für Normung e. V. (German institute for standardization)
EN	Europäischer Standard (European standard)
IEC	International Electrotechnical Commission
ISO	International Standards Organization
LAI	Länderausschuss für Immissionsschutz (Federal states committee for immission control)
KALI	In-house method of K-UTEK AG
K-UTEK XXX	In-house method of K-UTEK AG

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