

Horolith® N2

Description: Liquid, mixed acid cleaning agent for the removal of inorganic deposits in plants in the food industry

Product strengths:

- especially suitable for the removal of mineral scale
- inhibits corrosion
- stabilizing effect against the formation of nitrous gases
- foam-free

Properties

Concentrate	Appearance:	clear, colourless liquid *
	Storage stability:	-20 to 40 °C
	Solubility:	at 20 °C miscible with water in any proportion
	Density (20 °C):	1.17 – 1.19 g/cm ³
	P content:	1.04 %
	N content:	5.78 %
	S content:	0 %
	COD:	< 3 mg O ₂ /g
	Flash point:	not applicable
	Application solution	pH:
Conductivity:		15.6 mS/cm (1 %, 20 °C, deionized water)
Foam characteristics:		non foaming

* Parameters subject to incoming goods control

Material compatibility: Horolith N2 is, under the application conditions described below, compatible with

- **Metals** austenitic CrNi steels (quality at least DIN 1.4301 = AISI 304)
- **Plastics** PTFE, PE
- **Seals** EPDM, NBR

Application

Horolith N2 is suitable for the removal of mineral scale (beer-, milkstone) in plants, pipelines and tanks in the food industry.

Dairy Industry:

- **Heater, Evaporator**

After alkaline cleaning

Intermediate rinse until alkaline-free

Acid cleaning

Concentration: 1.0 – 2.0 % **Horolith N2**
 Temperature: 60 - 70 °C
 Contact time: 10 - 15 minutes

- **Tanks**

For the removal of mineral scale, **Horolith N2** can internally be used for the cleaning of stainless tanks

Concentration: 0.7 - 1.5 % **Horolith N2**
 Temperature: 60 - 70 °C
 Contact time: 5 - 15 minutes

Final rinse after cleaning with water of drinking water quality.

Brewing and Beverage Industry:

- **Fermentation- /
Storage cellar**

Tanks, cylinder-conical fermenters/storage tanks

Concentration: 0.7 – 2.0 % **Horolith N2**
 Temperature: room temperature
 Contact time: 15 - 20 minutes

Pipelines and hoses

Concentration: 0.7 – 2.0 % **Horolith N2**
 Temperature: room-temperature
 Contact time: 15 - 20 minutes

- **Cask cellar/Keg plant**

Cask-/KEG inside cleaning

Concentration: 0.7 – 2.0 % **Horolith N2**
 Temperature: up to 80 °C
 Contact time: depending on line

Flash pasteurizer

Concentration: 0.7 – 2.0 % **Horolith N2**
Temperature: up to 80 °C
Contact time: 20 - 60 minutes

- **Bottling hall**

Pipelines, hoses, CIP beer-line

Concentration: 0.7 - 1.5 % **Horolith N2**
Temperature: room temperature
Contact time: 15 - 30 minutes

- **Vessel- / Container station**

Cleaning baths

Concentration: 0.7 – 2.0 % **Horolith N2**
Temperature: up to 80° C
Contact time: depending on line

Filler, pipelines, hoses

Concentration: 0.7 – 2.0 % **Horolith N2**
Temperature: up to 80° C
Contact time: 20 - 60 minutes

Important indications !

- Effluent, containing chemicals, must only be discharged according to the local regulations
- Chemicals containing effluent must only be discharged into the biological treatment station after passing the neutralization- and buffer tank
- When discharging chemically polluted effluent, it is essential to pay specific attention to the bacteria toxicity of this water. This is especially important when dealing with biocide containing effluents and anaerobic sewage plants
- In case of doubt please seek advice from our technical service

Monitoring

Concentration determination

- **Titration**

Receiving flask: 50 ml application solution
Titration solution: 1.0 n NaOH
Indicator: Phenolphthalein
Titration factor: 0.42

Volume added in ml x 0.42 = % **Horolith N2**

- **Conductivity**

Specific conductivity of **Horolith N2**

Concentration control

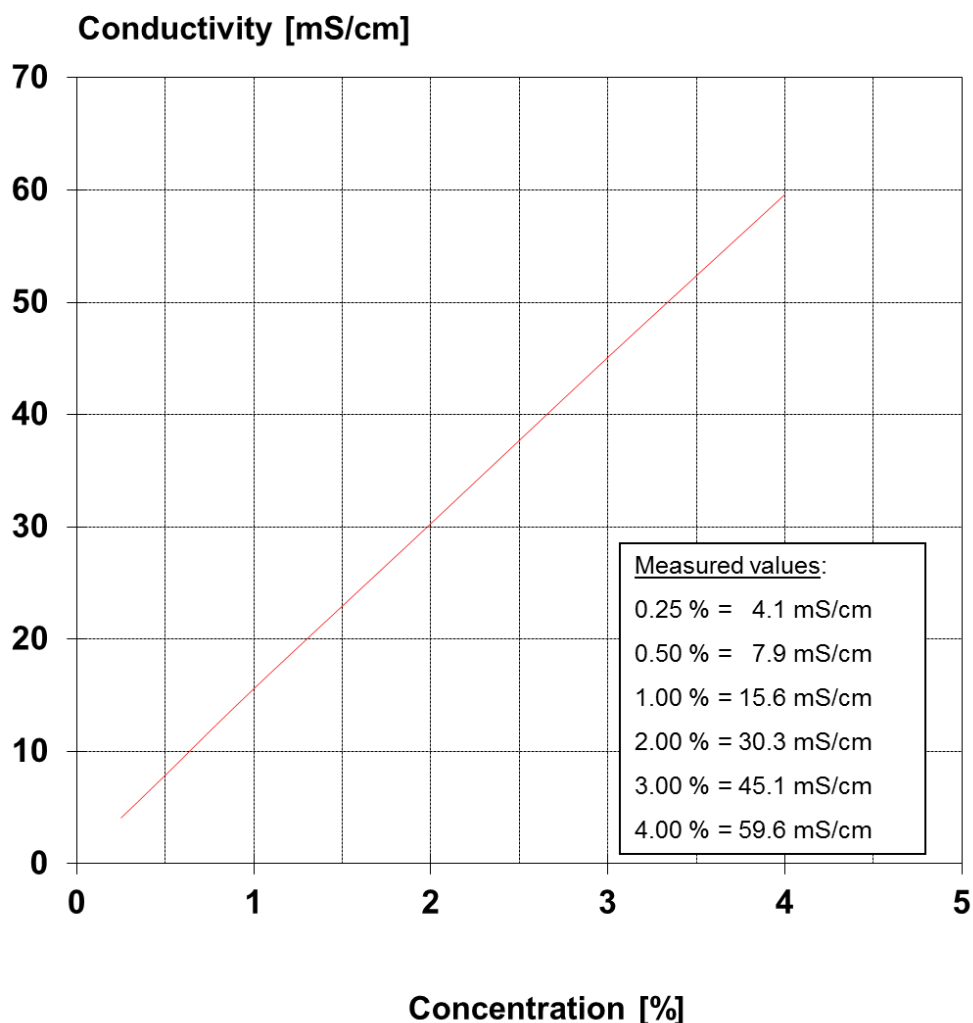
The dosage of **Horolith N2** can be performed automatically conductivity-controlled - if desired also volume- or time-proportional (e. g. by means of **Elados EMP**-dosage pumps and inductive conductivity measuring devices such as **LMIT 09**).

Safety

The relevant hazards identifications of **Horolith N2** are given in the EC Safety Data Sheet. If any questions arise in this context please contact your Ecolab representative.

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Spec. Conductivity (20 °C, 0 °d)
Temperature coefficient: α 1.44 %/°C



The statements, information and data presented herein are believed to be accurate and reliable. The information describes the characteristic features of **Horolith N2** in ordinary use, but cannot be taken as a guarantee, express warranty or implied warranty for the suitability for a particular purpose and shall not extend mandatory warranty rights (if any). The specifications and performance may vary, subject to the operational conditions. Since numerous parameters will influence product performance and applicability, this information does not exonerate the user from liability with respect to the suitability of the product and the appropriate safety measures to be taken. Moreover, a possible infringement of patent rights must be avoided at all times.

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