Nuremberg, 30 June, 2022

Statement on Mycotoxins and Heavy Metals

Based on our analysis results we hereby state that no **mycotoxins** (Ochratoxine, Aflatoxines B1, B2, G1, G2) were detectable, neither in our hops nor in our hop products. These analyses are carried out on a regular basis.

The term "heavy metals" is not defined in the food laws and normaly refers to a mixture of substances such as arsenic (As), lead (Pb), cadmium (Cd) and mercury (Hg), for the metals chromium (Cr), cobalt (Co), iron (Fe), molybdenum (Mo), and the metalloid selenium (Se).

There is no legal limit for the sum of the heavy metals. Relevant heavy metals, which are considered to be harmful metals, are those which have a definite toxic effect. These are lead, cadmium and mercury, also arsenic is a harmful metalloid and must be included in the evaluations. In this connection copper is not taken into account as it is considered as pesticide and the maximum residue for copper is regulated in EU regulation 396/2005.

Within our analysis programme we determine the contents of the following substances: arsenic (As), lead (Pb), cadmium (Cd), mercury (Hg), chromium (Cr), cobalt (Co), iron (Fe), molybdenum (Mo), nickel (Ni), and the metalloid selenium (Se).

We hereby state that the determined contents of the above mentioned metals in our hops and hop products are negligible. They do not have any negative impact on consumer health and beer quality as the resulting concentrations anticipated in beer are lower than the legal limits of the drinking water regulations.

BarthHaas GmbH & Co. KG

Dr. Reinhold Kugel Head of Product Safety and Quality Assurance

