MicroChemicals

MicroChemicals GmbH ▪ Nicolaus-Otto-Str. 39 ▪ 89079 Ulm ▪ Germany

MicroChemicals GmbH
Nicolaus-Otto-Str. 39
89079 Ulm, Deutschland

Phone: +49 (0) 731 977343 0
Fax: +49 (0) 731 977343 29
E-mail: info@microchemicals.de
Web: www.microchemicals.de

Ansprechpartner / contact person

Notes on the Storage of Hydrochloric Acid 37%

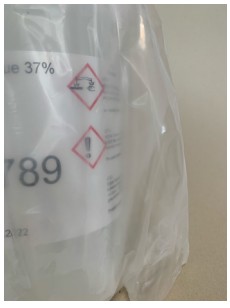
Dear Customer,
With this letter we would like to draw your attention to a special behavior of 37% hydrochloric acid.
HCl (hydrogen chloride), is a gas that dissolves very well in water and forms hydrochloric acid in dissolved form. With a molar mass of 36 g / mol, hydrogen chloride is a very small molecule, which means that it can diffuse through polymers very well. For reasons of purity, the hydrochloric acid is filled in HD-PE polymer bottles. In order to protect the bottles from particles and contaminations, these bottles (which are intended for the use in clean rooms) are packed in plastic bags. Over the time of storage, however, the hydrogen chloride diffuses through the wall of the bottle, which is made of polymer, and collects in the foil bag. There is air that contains not only carbon dioxide but also water vapor and it can react with the hydrogen chloride, whereby either a white dust or fine droplets can be found in the foil bag. This happens during storage even if there is not the slightest leak in the bottles. This white dust or the possible fine droplets are the reason why the 37% hydrochloric acid, unlike e.g. sulfuric acid of the same degree of purity, has not a shelf life of 3 years, but is only „durable“ for 1 year. It is therefore not the reason that the acid would not maintain its purity or its properties, but rather the label and also the bottles or foil bags are increasingly affected by the problem described above in the course of storage. You will not only see this with hydrochloric acid from our company, it is the same for hydrochloric acid 37% of all manufacturers (packed in HD-PE bottles and in foil bags).

We therefore recommend, as is generally the case with hazardous substances, to work with gloves and protective goggles when unpacking the bottles from the bags. Then we recommend rinsing the hydrochloric acid bottles briefly under DI water or cleaning the bottles with a clean room wipe soaked in DI water. Since these problems cannot be avoided in the long term and generally occur after a certain storage time, these droplets or the white dust are not grounds for complaint and we ask for your understanding.

If you have any questions on the subject, please do not hesitate to contact us.

Many greetings,
Your MicroChemicals Team

white dust



fine droplets