

Revision: 6<sup>th</sup> of August, 2020

PRODUCT NAME	ITEM NO.	SUPPLEMENTARY DETAILS
<b>Sodium hydroxide 7.5%</b>	92002678	1 l

<b>Description</b>	Chemical etchant (applied at room temperature) for etching of materialographic samples. The product is used for etching aluminum and Al-alloys. The most common application is the macro-etching of weld-lines, or the grain distribution in wrought alloys.
<b>Material</b>	Sodium hydroxide 7.5 % Further additives are present below the threshold values for mandatory identification and can be considered nonhazardous additives.
<b>Properties</b>	Slightly viscous, colorless liquid, characteristic smell, pH >14
<b>Application</b>	The etchant can be applied as received or in a diluted state. The materials are commonly immersed in the etchant, while swab-etching also is a possibility. The sample (if a microstructural investigation is of interest polished with 1 µm or oxide suspension) is immersed in the etchant. The etching times are material dependent. Usually etching times are in the range of a few seconds. The sample is thoroughly rinsed with water and ethanol. Finally, it is dried in a hot air stream, before a microscopic investigation is conducted. If the result is not satisfying the last two polishing steps must be repeated until any etchant induced Deformation is removed. Then another attempt on etching can be made.
<b>Health and safety</b>	The product should only be used in a suitable fume cupboard. During the etching process small amounts of hydrogen are formed, which in case of lacking ventilation, may form explosive gas mixtures. Suitable protective clothing, protective gloves (fluororubber, 0.4 mm) and tightly sealed eye protection must be worn. In the case of dermal exposition, the affected area should be thoroughly rinsed with water and soap. During fires no toxic decomposition products are formed. Nevertheless, a self-contained respiratory device should be worn. The choice of extinguishing agents is not influenced by this product. Further First aid measures and safety instructions can be taken from the products SDS.
<b>Environmental precautions</b>	The product is classified as water toxicity class 1. It cannot get into contact with sewage systems, phreatic- and surface waters. The product is hazardous waste and has to be collected and disposed of separately. The disposal has to occur according to local legislation.
<b>Storage</b>	The product is assigned to storage class 8 B (TGRS510). It has to be stored in tightly sealed containers in a dry and cool (3-30°C) environment. Violent reactions with ammonium compounds, magnesium, metal powders, phenols, acids and cyanides have to be expected. This should be considered when storing NaOH. Further storage related information can be taken from the products SDS.