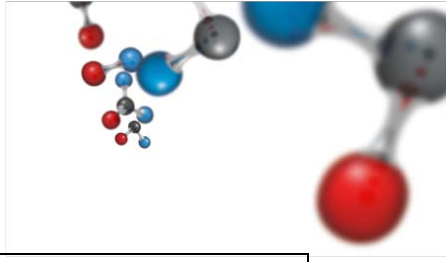
TECHNICAL DATA SHEET (TDS)
SODIUM HYDROXIDE SOLUTION



- **Chemical formula:** $NaOH+H_2O$
- **Other name of material:** Lye, caustic soda water solution
- **Molecular mass: 40**
- **Hazard identification number:** 80
- **UN number:** 1824
- **Appearance:** Colourless, odourless liquid free of sediments

SPECIFICATIONS

Tested properties			Test method
Total alkali content expressed as NaOH	min.	48.0 m/m %	MSZ 16972:1981 (ISO 979:1974)
Na_2CO_3 content	max.	0.3 m/m %	MSZ 16972:1981
Iron content expressed as Fe_2O_3	max.	10 mg/kg	MFF-243* (ISO 983:1974)
Chloride content expressed as NaCl	max.	100 mg/kg	ISO 981:1973

* BorsodChem own method

APPLICATION AREAS

Sodium hydroxide solution is used in the largest quantity by the organic and inorganic chemical industries. Large consumers are the paper and cellulose industry, synthetic fibres and viscose, aluminium industry. Additional significant consumers are soap and detergent production, glass and food industries. It is used for water and waste water treatment and has numerous other uses in addition to the above.

HAZARD CLASSIFICATION

According to ADR and RID sodium hydroxide is classified in Class 8 (corrosive substance) on the basis of its main hazardous properties.
All further measures to be taken related to transportation can be determined in the knowledge of its hazard classification.

PACKAGING AND TRANSPORT

Sodium hydroxide is delivered in steel, alloyed steel (acid-proof steel) or rubber-lined steel tankers or in 1 m^3 plastic tanks, which are appropriate from the aspect of corrosion protection. The majority of tankers are equipped with internal heating coil connected to steam supply.

By road and rail it is delivered in packaging devices complying with ADR and RID regulations.

STORAGE

It can be stored in steel tanks (max. up to 55°C). In order to prevent corrosion and contamination with iron a lined steel tank or alloyed steel, nickel or nickel alloy tank shall be applied. To avoid freezing of the caustic soda solution, the storage tanks and pipes shall be equipped with a heating device. It can be stored for an indefinite time under suitable conditions.
No expiry date in properly closed container or storage tank.

SAFETY MEASURES

The caustic soda may cause serious deep injures in case of contact with skin or any other body parts. It is a highly corrosive product even in its highly diluted solutions. In case of eye contact a small quantity can cause damage to the eye and blindness in serious cases. During handling it is absolutely essential to wear proper protective clothing, rubber gloves, laboratory mask or safety goggles.
For more information please see the material Safety Data Sheet.

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