TECHNICAL SHEET

CAUSTIC SODA LYE

Electrolytic Processes

Last revision 2008

Chemical Name: Molecular formula: NaOH
NO.CAS 1310-73-2
Abbreviation: Caustic Soda

General Description:

Caustic soda lye (sodium hydroxide solution) is manufactured by membrane electrolysis and mercury cathode electrolysis.

Sodium hydroxide is a colorless, odorless and crystalline substance that readily absorbs carbon dioxide and moisture from the air. The product is very soluble in water, alcohol and glycerin, and is caustic.

Sodium hydroxide is a strong electrolyte, being completely ionized in solution state. It is a stable product when stored under normal conditions of pressure and temperature, in tightly closed tank cars or containers.

Technical Quality Conditions:

Characteristics	MU	Values	Testing methods
Appearance	-	clear liquid, free of mechanical impurities	visual
Sodium hydroxide (NaOH), min.	%	48	STAS 3068
Sodium carbonate (Na_2CO_3), max.	%	0.25	STAS 3068
Sodium chloride (NaCl), max	%	0.035	STAS 3068
Iron oxides (Fe_2O_3), max.	%	0.001	STAS 3068

Specific Properties:

pH	strongly alkaline
Boiling point	145°C
Ignition temperature	not ignitable
Density at 25^0C	1.53

The specific properties present approximate values and contain general information, without being part of the technical quality conditions.

Main Applications:

- oil industry
- petrochemical industry
- wood chemical treatment
- soap and detergents industry
- chemical industry (for the manufacturing of dyestuff, phenol, phosphates, sodium hypochlorite etc.)
- food industry
- aluminum industry
- pharmaceutical industry
- waste water treatment

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Shipping Information:

- stainless steel / coated tank cars or containers of 20 or 40 tons, equipped with heating coils;
- non-returnable steel drums.

Storage:

Caustic soda lye should be stored at temperatures between 85° to 100°F (29° to 38°C). For storage below 120°F (49°C) temperature, the product needs to be stored in mild steel, butt-welded tanks. High temperature alarms should be included.

Tanks and pipes should be insulated and traced to prevent the caustic soda solution from freezing.

Safety Considerations:

Please refer to the product Material Safety Data Sheet (MSDS) offering customers help to better satisfy their particular handling, safety and disposal needs and those that may be required by locally applicable health and safety regulations.

Warning:

Caustic soda solution is highly corrosive hazardous product. Avoid body contact. The product is dangerous to eyes and skin. Destroys skin tissues and causes severe chemical burns. Inhalation can cause serious injury to respiratory tract. Ingestion can injure the digestive system.

The viscosity of 50% caustic soda solution increases rapidly when its temperature falls below 65°F (16°C).

Attention*:*

Information contained in this document is provided to the best of our knowledge and experience.

Please contact OLTCHIM to see if the document has been revised.

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