



CHLOR-ALKALI PRODUCTION

Solutions for the production of chlor-alkali

Chlor-alkali technology consists of the electrolysis of a sodium chloride brine or potassium chloride, to produce chlorine, sodium hydroxide, potassium hydroxide and hydrogen.

KERN S & D has technology for small scale units to produce in situ.

Technology for the production of chlor-alkali

KERN S & D has a technology of membrane (does not contain mercury) and diaphragm (does not contain asbestos) with production capacity from 10Kg/day to 12T/day of chlorine.

The process consists of a modular electrolysis unit, pre-assembled on skids, where the brine is transformed by the following reaction:



The electrolysis units can include the following stages:

- Preparation of the brine
- Purification of the brine
- Ultra purification of the brine
- Electrolysis
- Decloration
- Cooling
- Chlorine absorption system: production of hypochlorite
- Evaporation, soda concentration up to 50%



HIGH RELIABILITY



EASY TO MAINTAIN



AUTOMATIC CONTROL



SAFE OPERATION



NO ENVIRONMENTAL IMPACT



MODULAR AND SCALABLE



ECONOMIC SAVING (Low operating and maintenance costs)



HIGH ENERGY EFFICIENCY



SIGNIFICANT REDUCTION in the associated risks of storage, handling and road transport

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PRODUCTION OF CAUSTIC POTASH

CAUSTIC POTASH	
Concentration	49 - 51%
Quality	Standard Food Chemical Codex

Applications

- Food processes
- Production processes of alginates and algae derivatives
- Manufacture of soaps
- Chemical products manufacturing
- Carbonate and potassium bicarbonate manufacturing
- Pharmaceutical industry
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CHLORINE

Main applications of chlorine

- Water treatment
- Vinyl manufacture
- Chlorofluorinated manufacture
- Preparation of metal chlorides
- Hydrochloric acid synthesis
- Obtaining sodium and calcium hypochlorite
- Preparation of silicon tetrachloride, oxychlorides and trichlor
- Paper and textile industry
- Coolant fluids
- Food processes
- Manufacture of cleaning items
- Manufacture of herbicides e insecticides
- Synthetic glycerin
- Chlorine paraffin