



Asian Laboratories

Construction Chemical Manufacturers



Committed to Superior Quality & Results



87,88, New Okhla Industrial Complex, DSIDC Shed, Scheme-1, Phase -II, New Delhi-110020

tel: 011-26386507, 26386063

email: asianlab88@gmail.com , info@asianlaboratories.com , marketing@asianlaboratories.com

PRODUCT INFORMATION : AQUA GEL -9 (READY TO USE CHEMICAL GROUT)

PRODUCT:

- (i) **Appearance:** Transparent light blue liquid
- (ii) **pH** : 7.5 to 8.5
- (ii) **Viscosity** : 1.2 Cp (Centipoises)
- (iv) **Toxicity:** No hazard from toxicity. As Usual certain basic safety and handling precautions should be taken.
- (v) **Handling:** This chemical is caustic in nature. Rubber-gloves and glasses should be worn by the operators. Spills on the skin should be washed off with water immediately.
- (vi) **Packing** : Components A & B are packed separately in 220 Kg. M.S.Barrel packing. Component C is packed in 35 Kg. Jar.

AQUA GEL-9 is a mixture of two organic monomers which produces very stiff gel due to polymerisation and cross-linking reaction. The free radical is produced immediately after the two components. A & B are mixed and the gel time starts. During this induction period, viscosity of the solution remains almost constant and some heat is evolved producing long, flexible, polymer chain which binds the water into a gel. The gel reaches its maximum strength in a matter of minutes.

USES:

- Constructing grout curtain for Dams.
- Stabilizing soil for construction of tunnels.
- Grouting jointed Rock in Dam foundation.
- Sealing leaks and grouting river bed.
- Grouting in Cofferdam, fissured rock and for blocking artesian flow.
- Shutting off water during tunneling.
- Grouting foundation for Dam construction.
- Repair to leaking earthen Dam.
- Sealing leaks in coal mines slope.
- Cutting water flow in Colliery drift.
- Preventing leaks while sinking tunnel shafts.

PROPERTIES OF GEL OF AQUA-GEL 9 (COMPONENTS A & B = 9 : 1

1. **Appearance:** The gel is rubbery, elastic material
2. **Solubility** : In soluble in water, kerosene and gasoline.
1. **Permeability:** Substantially impermeable in water (10-10cm/Sec)
4. **Stability** : Under conditions that allow water evaporation, AQUA GEL -9 will gradually dehydrate and shrink, Reswelling to the original gel volume occurs when the dehydrated gel is immersed in water. No syneresis (exudation of water) has ever been observed. Under most conditions, the gel appears unchanged for at least ten years.
5. **Corrosion** : The Gel has negligible effect on mild steel. AQUA GEL-9 containing sand has 0.0011 corrosion rate per year.
6. **Strength** : AQUA GEL-9 gel is rubbery, elastic material. Very loose soils, when stabilized, are also rubbery & elastic.

APPLICATION AND INSTRUCTIONS FOR USE:

There are three basic types of equipments which have been used for grouting AQUA GEL-9 solutions. These are designated as proportioning system, two solution system and batch system:of these, the proportioning system is the best and easiest to use.

The gel time can be extended by adding component C to the component A&B, before pumping, depending on th ambient temperature. The gelling time can be extended upto max. 500 minutes. However, strength of the gel is nor reduced even by extending gelling time. In normal case, by mixing AQUA GEL-9 A&B in 9:1 proportion respectively, the gel time is fixed for 0.5 minutes.

However, the time can be extended upto 500 minutes by adding component C.