



More than 95% sand and water

WHAT DOES FRACKING FLUID CONTAIN?



Less than 5% other chemicals

CHEMICALS USED IN HYDRAULIC FRACTURING

OTHER COMMON USES

PROPPANTS (eg sand, silica and quartz)

Keeps the fracture open to allow gas and water to flow more freely



High purity silica sands for glass-making and metallurgical uses

MICROBIAL CONTROLS (eg tetrakis (hydroxymethyl phosphonium sulphate))

Helps stop the growth of organisms which could contaminate the coal seam gas and the fracturing fluid



Household bleach, stain remover and disinfectant

BUFFERS, STABILISERS, SOLVENTS ETC (eg 2-Butoxyethanol)

Helps bond the chemicals and maintain the stability of the fracturing fluid



Solvent, vinegar, medicinal uses

CLAY MANAGEMENT (eg Sodium Chloride)

Minimises clay swelling in the vicinity of the well and in the underground formation



Salt-chemical-based dehumidifiers in domestic and other environments to absorb dampness/moisture from the air

GELLING AGENTS AND BINDERS (eg bentonite, polymers, guar gum)

Thicken the fracturing fluid to allow more sand to be carried into the fractures



Pet litter, groundwater barrier, drilling mud

BREAKERS, SURFACTANTS, FRICTION REDUCERS (eg Ammonium Persulfate)

Assists in breaking down the chemical bonds and surface tension in the gel, allowing the chemicals to be pumped back out as a fluid



Bleach, etching zinc, soil conditioner, surface cleaners, personal care products, medicines

pH CONTROLLERS (eg acetic acid)

Adjusts the pH of the hydraulic fracturing fluid to maximise the effectiveness of other additives



Manufacture of pulp, paper, textiles, soaps and detergents

MINERAL DISSOLUTION AGENTS (eg hydrochloric acid, acetic acid)

Helps dissolve minerals and initiate cracks in the rock



Household cleaning, descaling, food production

FOAMING AGENTS (eg 2-Butoxyethanol)

Helps carry the proppant and minimise water use



Laundry detergents and household cleaning products

CORROSION INHIBITORS (eg Ethylene Glycol)

Prevents pipe corrosion



Plywood, paint, confectionary, cleaning products and camping stoves