

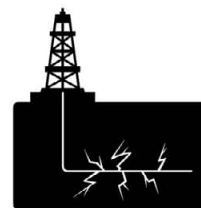
**Biocides in fracking fluids**

The underground gas and petroleum production enhancement process of fracking has generated much attention. There is concern about potential short and long-term adverse health effects and environmental contamination associated with the process. A description and discussion of these issues was published in the March 16, 2015 Chemical & Engineering News.

Emphasized in this article were the use, mode of action, and environmental fate of biocides. These chemicals are important fracking fluid additives used to kill microbes that might produce corrosive acids or form well-clogging biofilms. Since biocides are inherently toxic, there is a growing concern over the environmental fate and impact on groundwater contamination.

A comprehensive review of all aspects of biocide use in hydraulic fracking was authored by Kahlrilas et. al. (Environmental Science & Technology, 2015, 49, 16-32). Sixteen biocides were listed in the article. These biocides were identified as components in fracking fluids on the FracFocus.org website.

These biocides are part of our 217 biocide product line that was developed for the EU Biocides Regulation 528/2012. This legislation classifies biocides into 22 product types grouped into four main areas.

**Available individually or as a set of 11**

Compound	CAS	CAT. NO.	UNIT
Glutaraldehyde Solution (~50% Water)	111-30-8	FRACK-001N	1 mL
2,2-Dibromo-2-cyanoacetamide	10222-01-2	FRACK-002N	100 mg
Tetrakis(hydroxymethyl)phosphonium sulfate	55566-30-8	FRACK-003N	100 mg
Didecyldimethylammonium chloride	7173-51-5	FRACK-004N-10MG	10 mg
Tributyltetradecylphosphonium chloride	81741-28-8	FRACK-005N	100 mg
2-Methyl-2H-isothiazol-3-one	2682-20-4	FRACK-006N-10MG	10 mg
Dazomet	533-74-4	FRACK-007N-10MG	10 mg
4,4-Dimethyloxazolidine	51200-87-4	FRACK-008N-10MG	10 mg
2-Bromo-2-nitropropane-1,3-diol	52-51-7	FRACK-009N-25MG	25 mg
Peracetic acid	79-21-0	FRACK-010N	100 mg
N-Bromosuccinimide	128-08-5	FRACK-011N	100 mg
Fracking Set		FRACK-SET	Set of 11

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