

# Penta-465

PENTA-465 is a multipurpose concentrated silicone defoamer used in water-based drilling fluids.

PENTA-465 is a composition of organosilicon oligomers and non-ionic surfactant with the addition of water. A 90% self-emulsifying antifoam concentrate, effective both in combating the formed foam and preventing the formation of foam by pre-treating water-based drilling fluids. The defoamer operates in a wide temperature range of -20 ... + 120 ° C, at pH 3 ... 12.

### Typical Physical Properties

Physical appearance .....	viscous white to yellow liquid
Specific gravity .....	1.02
Solubility in water .....	100%
Freezing point.....	< -20oC
Water content.....	.5%

### Applications

Silicone defoamer PENTA-465 surpasses organic counterparts in defoaming capacity, works faster and lasts longer. Differs in economy (consumption from 0.00001 to 1% of weight) - its surface tension is very low and it spreads quickly over the foaming medium. Chemically inert to most substances - they act independently of the components that cause foaming. They are used in a wide temperature range. Differs in low toxicity, non-volatility, ability to work in various environments, fire and explosion safety.

well dissolve in aromatic hydrocarbons. Does not corrode metals. Stable during storage. Odorless, non-industrial allergens, non-cumulative, environmentally friendly.

### Advantages

- Concentrated agent that requires a minimum concentration for treatment
- Easy to mix
- Reduces adhesion of filtration cakes
- Effective in a wide temperature and pH ranges

### Limitations

- Performance can be reduced in highly mineralized (salt-saturated) drilling mud systems
- Can cause rheology increase in lignosulphonate muds

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## Toxicity and Handling

Low hazardous substance for the effects on the human body and aquatic biota, 4th hazard class. Non-explosive, hardly flammable substance.

Biological analysis data can be provided upon request. Handle in accordance with the Material Safety Data Sheet (MSDS) and general requirements for handling industrial reagents.

## Packaging and Storage

The product is supplied in 20, 25L plastic cans, 200-L drums. Store in closed containers, in covered warehouses at temperatures from minus 40oC to plus 30oC, keep away from heat sources and direct sunlight. Observe the rules for storing materials regarding packaging, attachment, and warehousing.

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