

### OIL & GAS FLUID TREATMENT



**PENETONE 4000P SERIES** is a full product line designed to soften, dissolve, disperse, and inhibit or prevent wax deposition in well bores and in flowline batch treatments. Each product in the **4000P SERIES** is extremely cost effective when employed in conjunction with hot oiling or may be used down hole via continuous injection by side stream or down the packer free well annulus of restricted wells. Alternatively, continuous injection at the well head will reduce deposition in flowlines and surface vessels.

### FEATURES AND BENEFITS

- Low freeze points
- Fully active formulations
- **4015P** for dissolving existing wax deposits
- **4017P** for additional dispersion at lower temps. and adherence and agglomeration reduction
- **4022P** for crystal inhibition, adherence and agglomeration reduction, and overall flow improvement
- Field study data available for **4015P**
- **4015P** can be spotted at deposition points during hot oil well circulations for greater wax dissolution
- **4022P** can be injected down hole above the wax appearance temperature to disrupt wax crystal growth and prevent agglomeration or adherence of smaller wax particles to improve and maintain flow at cooler temperatures

### DIRECTIONS FOR USE

#### Chemical type

**Penetone 4015P: Solvent** – aromatic/aliphatic solvent blend

**Penetone 4017P: Dispersant** – aromatic solvent/surfactant blend

**Penetone 4022P: Inhibitor** – aromatic solvent/surfactant/paraffin inhibitor blend

#### Treatment rates

Will vary depending on wax deposition, content, location, and situation. Optimization of the injections rates should be achieved through field testing.

Continuous well injection treatment rates will typically be between 0.1 – 1 L of **4015P** or **4017P** and 0.25 – 2 L of **4022P** per m3 of production.

Up to 5% v/v of the volume of oil employed for hot oiling or carrier solvent for flowline batch treatments is recommended to achieve desired results.

#### Additional applications

**4015P** or **4017P** may be used in pigging operations to improve wax removal during paraffin remediation procedures.

# PENETONE 4000P SERIES

## PARAFFIN WAX REMEDIATION

### PHYSICAL PROPERTIES

Appearance	Clear or brown or dark brown liquid
Odour	Solvent
Specific Gravity @ 20°C	0.750-0.850
Viscosity	Thin
pH	Not applicable
Flash Point (TCC)	<37°C
Boiling Point	Not determined
Freezing Point	<-40°C
Foaming Tendency	Nil
Autoignition temperature	Not determined
Active content	100%
Water Solubility	Insoluble

### INCOMPATIBILITY

Oxidizing materials

### WAREHOUSING PRECAUTIONS

Store away from heat sources and flames

### AVAILABLE SIZES

			
20L	205L	1000L	

### FIRST AID MEASURES

#### EYE CONTACT

Wash with plenty of water for 15 minutes. Consult physician if irritation develops or persists.

#### SKIN CONTACT

Wash with soap and water. Consult physician if irritation develops or persists.

#### INHALATION

Give fresh air or artificial respiration. Consult physician.

#### INGESTION

Administer 1-2 glasses of water. **DO NOT** induce vomiting. Seek medical attention. Never administer fluids orally to an unconscious person.

### HEALTH

2

### FLAMMABILITY

4

### REACTIVITY

0

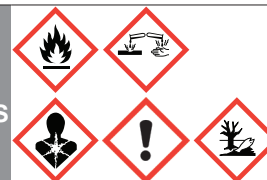
### LEGEND

0 = MINIMAL RISK  
1 = SLIGHT RISK  
2 = MODERATE RISK  
3 = SERIOUS RISK  
4 = SEVERE RISK

### PERSONAL PROTECTION Security equipment



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**IMPORTANT:** Before using PENETONE 4000P SERIES, always be sure to read and follow precautions and directions for use appearing on the product container label and on the safety data sheet (S.D.S).



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