**IRON SULFIDE REMEDIATION**

**POTASSIUM PERMANGANATE SOLUTION** is a 4% aqueous solution of potassium permanganate useful for the remediation of pyrophoric and non-pyrophoric iron sulfide particulate deposition as well as system mal-odours. It requires no specialized equipment for safe, easy, and efficient application with reduced decontamination times for rapid vessel entry.

**FEATURES AND BENEFITS**

- Concentrate solution
- Contains added surfactant for rapid wetting of oil-wet deposits
- Compatible with other surfactants for additional penetration and removal of surface deposits
- Generates no gaseous by-products during application
- Product coloration changes during application indicating completion of reaction
- Wastewater friendly
- Dramatically reduces turnaround time
- Provides for fast, easy and safe application procedures
- Spent solution requires no specialized handling procedures and can be sent directly for disposal

**DIRECTIONS FOR USE**

Use **POTASSIUM PERMANGANATE SOLUTION** as part of a high pressure application or liquid-phase circulation after completion of a full chemical cleaning procedure. May also be used for continuous injection. Not recommended for vapor phase injections. Consult with your local West Penetone sales representative for procedures best suited for your application.

Preliminary recommendations include applications at concentrations of 20-25% v/v neutral pH, aqueous dilution for complete particulate iron sulfide remediation.

Should be used as part of a cold to warm water wash or circulation.

Dependent on job, site and method of application. Dwell time may vary from 8-12 hours depending on depth of scaling and degree of contamination. Retain monitoring is recommended.
# POTASSIUM PERMANGANATE SOLUTION
## IRON SULFIDE PARTICULATE REMEDIATION

### PHYSICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Purple liquid</td>
</tr>
<tr>
<td>Odour</td>
<td>Odorless</td>
</tr>
<tr>
<td>Specific Gravity @ 20°C</td>
<td>0.95-1.00</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Thin</td>
</tr>
<tr>
<td>pH</td>
<td>6.0-7.0</td>
</tr>
<tr>
<td>Flash Point (TCC)</td>
<td>None</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Approx. 100°C (212°F)</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>Approx. 0°C (32°F)</td>
</tr>
<tr>
<td>Foaming Tendency</td>
<td>Nil</td>
</tr>
<tr>
<td>Concentration Monitoring Techniques</td>
<td>Visual</td>
</tr>
<tr>
<td>Rinsability</td>
<td>Excellent</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Complete</td>
</tr>
</tbody>
</table>

### INCOMPATIBILITY
- Organic and combustible materials, strong reducing agents and acids, peroxides, alcohols, nitrates, perchlorates, hyphosphites, hyposulphites, sulphites, oxalates, halides, hydrides, and heat

### WAREHOUSING PRECAUTIONS
- Keep in a tightly closed container, stored in a cool, dry, ventilated area. Avoid storage on wood floors and keep separate from incompatibles.

### AVAILABLE SIZES
- 205L / 54.16Gal

### FIRST AID MEASURES

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

#### SKIN CONTACT
Wash with plenty of water. Consult physician immediately.

#### INHALATION
Give fresh air or artificial respiration. Consult physician.

#### INGESTION
Do not induce vomiting. Drink plenty of water and contact physician immediately.

### HEALTH
- 1

### FLAMMABILITY
- 0

### REACTIVITY
- 0

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

### PERSONAL PROTECTION
- Security equipment

### WHMIS

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**IMPORTANT:** Before using POTASSIUM PERMANGANATE SOLUTION, 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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