**Orfom® MC Collectors**

**Orfom® MC Collectors** are highly effective reagents for mixed sulfide mineral operations. Our products are tailored to each specific operation as the predominate collector to maximize sulfide mineral recovery. These formulations have been shown to replace multi-component reagent systems for the recovery of copper sulfides and molybdenite. The Orfom® MC collectors are shown to significantly increase copper and copper-molybdenum recoveries, while minimizing undesirable mineral recovery like pyrite. All our products are compatible with conventional collectors, depressants, frothers and are stable over a wide pH range.

Orfom® MC collectors are designed to meet each operations specific needs. Below are examples of the benefits of our chemistry base:

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</thead>
<tbody>
<tr>
<td>Specific Gravity at 16.6 °C (g/ml)</td>
<td>0.953</td>
<td>0.830</td>
<td>0.830</td>
<td>0.801</td>
<td>0.878</td>
<td>D1298</td>
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<tr>
<td>Density Conversion (lbs/gal)</td>
<td>7.95</td>
<td>6.93</td>
<td>6.93</td>
<td>6.68</td>
<td>7.33</td>
<td>D1298</td>
</tr>
<tr>
<td>Flash Point (°C)</td>
<td>93</td>
<td>91</td>
<td>81</td>
<td>71</td>
<td>68</td>
<td>D93</td>
</tr>
<tr>
<td>Viscosity at 25 °C (mm²/sec)</td>
<td>9.8</td>
<td>2.9</td>
<td>2.8</td>
<td>1.8</td>
<td>3.7</td>
<td>D445</td>
</tr>
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</table>

**Orfom® MC-37 and MC-47 Collectors:**
- Are highly effective, economical, non-selective collectors for copper sulfides and molybdenite
- Demonstrate increased recoveries as sole collector replacing commonly used reagents like xanthates, fuel oil, and diesel at lower total dosage
- **Orfom® MC47 Collector** is REACH compliant and classified as non-carcinogen
- **Orfom® MC-37 Collector** provides excellent recoveries where higher viscosity requirements are needed

**Orfom® MC-44 Collector:**
- Formulated to provide excellent recovery of copper, copper-molybdenum and molybdenum sulfide minerals for controlled environment operations
- Maintains high recoveries as sole reagent replacing xanthates and diesel/kerosene at lower combined dosage
- This product is non-carcinogen and classified as REACH compliant

**Orfom® MC-62 and MC-63 Collectors:**
- Exhibits higher total copper recovery when secondary copper sulfides are present
- Demonstrates high recovery of molybdenite
- Provides greater selectivity to the rejection of pyrite
- Provides superior copper and molybdenum sulfide recovery at low reagent dosages
- Designed for use without the presence of diesel or kerosene
- Results in high recovery at significantly lower dosage rates than other common collector systems
- These products are non-carcinogen and classified as a REACH compliant

Do not hesitate to contact us for **Technical Support** at miningtech@cpchem.com or for **Customer Assistance** at mining@cpchem.com. **Product Safety information** and **Safety Data Sheets** are available on our website at www.cpchem.com/mining.

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Before using this product, the user is advised and cautioned to make its own determination and assessment of the safety and suitability of the product for the specific use in question and to further advised against relying on the information contained herein as it may relate to any specific use or application. It is the ultimate responsibility of the user to ensure that the product is suited and the information is applicable to the user’s specific application. Chevron Phillips Chemical Company LP does not make, and expressly disclaims, all warranties, including warranties of merchantability or fitness for a particular purpose, regardless of whether oral or written, express or implied, or allegedly arising from any usage of any trade or from any course of dealing in connection with the use of the information contained herein or the product itself. The user expressly assumes all risk and liability, whether based in contract, tort or otherwise, in connection with the use of the information contained herein or the product itself. Further, information contained herein is given without reference to any intellectual property issues, as well as federal, state or local laws which may be encountered in the use thereof. Such questions should be investigated by the user.