CMS Solvent Recovery

CMS MEMBRANES ARE

1. A simple, compact, & efficient way to turn burdensome waste into usable material
2. Robust to virtually all chemicals, high temperatures, pressures, and additives
3. Modular allowing recovery across a range of volumes

RECOVERABLE VS REMOVED

<table>
<thead>
<tr>
<th>Recoverable</th>
<th>Removed</th>
</tr>
</thead>
<tbody>
<tr>
<td>alcohols</td>
<td>water</td>
</tr>
<tr>
<td>ketones</td>
<td>methanol</td>
</tr>
<tr>
<td>esters</td>
<td>low MW acids</td>
</tr>
<tr>
<td>ethers</td>
<td>dissolved gasses</td>
</tr>
<tr>
<td>furans</td>
<td>O₂, N₂</td>
</tr>
<tr>
<td>oils</td>
<td>CO₂, CH₄</td>
</tr>
</tbody>
</table>

96% recovery of solvent spent
$400K saved in solvent for $1/gal IPA
pays for itself within 1 YEAR

THE BENEFITS OF SOLVENT RECOVERY
with a CMS membrane using isopropyl alcohol generating 53,000 gallons of wet waste per year

only 30 ft² of factory floor space used

A daily drying process:

PHARMA
Decrease raw material costs
Increase efficiency of solvent exchange steps
Improve reactor conversion
Keep steady supply of IPA for rinsing
Keep water to proper levels in IPA
Decrease inventory of waste IPA

PAINT & COATINGS
Decrease solvent costs
Increase efficiency of rinsing operations
Stay in regulatory compliance
Boost final product value
Improve yield in equilibrium-limited reactions
Decrease downstream separation costs

SEMICON. PRODUCTION

BULK CHEMICALS

www.compactmembrane.com 302.999.7996 membranes@compactmembrane.com