Jeesperse® ICE-T® CIS-2
Instant Cold Emulsion Technology
PEG-150 Distearate (and) Cetearyl Alcohol (and) Polyquaternium-37

Jeesperse® ICE-T® CIS-2 is a patented (US Patent No. 8,299,162 and other patents pending) cationic emulsifier in a simple to use free-flowing powder, specifically created to prepare a wide array of stable emulsions. This unique emulsifier base is a multi-functional ingredient which can transform simple formulations into elegant, sophisticated emulsions while enabling you to address the challenges of using mostly basic ingredients.

Jeesperse® ICE-T® CIS-2 is one of our optimized powders that, when introduced into water or oil at low temperatures, rapidly forms stable emulsions. JEEN International’s patented technology eliminates the need to heat up separate phases to high temperatures to melt ingredients and/or to form emulsions. In addition to ease of use, our unique Jeesperse® Powders allow for low energy profiles in manufacturing, faster production time, eliminating the need for heat-up and cool-down prior to filling, and boosts efficiency of manufacturing plants by only requiring one vessel production.

KEY BENEFITS:
• Consistent viscosity profiles/results
• Allows for high load of ingredients, such as glycerin, even up to levels reaching 30%+ without the sensory negatives of tackiness, dragginess, or stickiness
• Allows for high oil loading — typical results (10:1) Oil Phase
• Enables formulations over a wide pH range of 2 - 9
Typical Properties

<table>
<thead>
<tr>
<th>INCI Name</th>
<th>PEG-150 Distearate (and) Cetearyl Alcohol (and) Polyquaternium-37</th>
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</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White powder</td>
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<tr>
<td>Odor</td>
<td>Characteristic</td>
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<tr>
<td>Melting point, °C</td>
<td>45 - 50</td>
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<tr>
<td>Packaging</td>
<td>40 lb. boxes (18.14 kg)</td>
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</tbody>
</table>
| Recommended use levels | Sprayable versions: 0.5 - 1.5%  
                        | Hair styling products: 1.0 - 6.0%  
                        | Hair conditioners: 2.0 - 5.0%  
                        | Milks/lotions/creams: 2.0 - 6.0% |

ADDITIONAL BENEFITS:
- Allows you to boost moisturization levels and moisture claims with an affordable, accessible, natural humectant (glycerin)
- Eliminates or minimizes the need to incorporate expensive sensory modifiers in high load sunscreen formulations
- Allows specific treatment formulations like ointments, butters, and creams, which require high oil load to feel pleasant and comfortable
- Can be used as an auxiliary rheology modifier
- Ease of use, can be added directly to water
- Ease of use, can be added directly to oil

PRODUCT APPLICATIONS:
- Skin lotions and creams
- Hair styling products
- Hair conditioners
- Spray applications

AESTHETIC BENEFITS:
- Imparts silky soft powdery finish to most formulations
- Gives a dry soft feel with high oil loads, maintains non-greasy results even with high SPF values
- Enhances typical negative feel of most humectants (including glycerin), and gives elegant silicone like slip/feel, without the need to use silicones

Please contact your JEEN Representative or visit our website at www.JEEN.com to learn more about our products, our technologies and how we can help you reduce your carbon footprint and produce a greener product.

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