Shell Cassida Grease HTS

High temperature grease for food & beverage processing equipment

Shell Cassida Grease HTS 2 is a high performance high temperature lubricant specially developed for the grease lubrication of machinery in the food and beverage processing and packaging industry.

It is based on a bentonite/clay thickener, synthetic fluids and selected additives chosen for their ability to meet the stringent requirements of the food & beverage industry.

Certified by NSF for ISO 21469 and registered by NSF (Class H1) for use where there is potential for incidental food contact. Product contains only substances permitted under US 21 CFR 178.3570, 178.3620 and 182 for use in lubricants with incidental food contact.

Applications
- Grease lubrication where operating temperatures are up to short time peaks of 220°C
- Plain and rolling element bearings
- Centralised automatic lubrication systems
- Joints, linkages and slides

Performance Features
- Excellent high temperature performance
- Good water resistance
- Good oxidation and mechanical stability
- Effective corrosion prevention characteristics
- Good adhesive properties
- Neutral odour and taste

Shell Cassida Grease HTS is based on a clay thickener and therefore not compatible with greases based on other thickener systems.

Seal & Paint Compatibility
Compatible with the elastomers, gaskets, seals and paints normally used in food machinery lubrication systems.

Specifications & Certificates
- NSF H1 registered
- ISO 21469 certified
- Kosher
- Halal
- DIN 51502, KP HC 2 S-30
- ISO 6743-9, L-XCGEA 2

Approvals & Recommendations
This is an ongoing process, please contact your local Shell Company for any updates.

Operating temperatures
-30 °C to +200 °C (peak up to +220 °C)

Synthetic lubricant
- Does not contain natural products derived from animals or genetically modified organisms (GMO)
- Does not contain any allergenic or intolerance-inducing substances as specified in Annex IIa of EC directive 2003/89/EC
- Suitable for use where vegetarian and ‘nut-free’ food is prepared
- Biostatic; does not promote the growth of bacteria or fungal organisms
“Incidental Food contact”
Registered by NSF (Class H1) and meets the USDA H1 guidelines (1998) for lubricants for use where there is a potential for incidental food contact.
Certified by NSF for ISO 21469, Safety of machinery, Lubricants with incidental product contact, Hygiene requirements.
Made only from substances permitted under the US FDA Title 21 CFR 178.3570, 178.3620 and/or those generally regarded as safe (US 21 CFR 182) for use in food grade lubricants.
To comply with the requirements of US 21 CFR 178.3570, contact with food should be avoided where possible. In the case of incidental food contact, the concentration of this product in the food must not exceed 10 parts per million (10mg/kg of foodstuffs).
In locations and/or applications where local legislation does not specify maximum concentration limits, Shell recommends that this same 10 ppm limit be observed, as up to this concentration Shell Cassida Grease HTS will not impart undesirable taste, odour or colour to food, nor will cause adverse health effects.
Consistent with good manufacturing practice, use only the amount necessary to achieve correct lubrication and take appropriate corrective action should excessive incidental contact with food be detected.

Protector the environment
Take used lubricants and empty packs to an authorised collection point. Do not discharge into drains, soil or water.

Health & Safety
Based on information available, Shell Cassida Grease HTS is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of industrial and personal hygiene are maintained. As for all greases, prolonged or repeated contact with the skin should be avoided.
For further information refer to the appropriate Shell Material Safety Data Sheet.

Handling & storage
All food grade lubricants should be stored separately from other lubricants, chemical substances and foodstuffs and out of direct sunlight or other heat sources. Store between 0°C and 40°C. Provided that the product has been stored under these conditions we recommend that the product be used within 3 years from the date of manufacture. Consult your local Shell Company for details.
Accept for use new Shell Cassida Grease HTS only if the manufacturer's seal is intact.
Before opening the pack ensure the area around the closure is clean. It is recommended that it be cleaned with potable water and then dried with a clean cloth before opening.
Record the date the seal was broken. To prevent product contamination, always close the package after use. Upon opening a pack, the product must be used within 2 years (or within 3 years of date of manufacture, whichever is the sooner).

Typical Physical Characteristics

<table>
<thead>
<tr>
<th>Property</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSF Registration No.</td>
<td>119108</td>
</tr>
<tr>
<td>Appearance</td>
<td>beige, smooth paste</td>
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<tr>
<td>Type of thickener</td>
<td>Bentonite/Clay</td>
</tr>
<tr>
<td>Worked penetration at 25°C</td>
<td>ISO 2137 265 - 295</td>
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<tr>
<td>NLGI number</td>
<td>DIN 51818 2</td>
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<tr>
<td>Kin. Visc. (base oil) at 40°C</td>
<td>ISO 3104 400</td>
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<tr>
<td>Kin. Visc. (base oil) at 100°C</td>
<td>ISO 3104 40</td>
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<tr>
<td>Kin. Visc. (base oil) at 200°C</td>
<td>ISO 3104 6</td>
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<tr>
<td>Dropping Point</td>
<td>ISO 2176 None</td>
</tr>
</tbody>
</table>

These characteristics are typical of current production. Whilst future production will conform to Shell's specification, variations in these characteristics may occur.

Produced according to Shell Quality Standards, in facilities where HACCP audit and Good Manufacturing Practice have been implemented and form part of the quality/environment management systems ISO 9001, ISO 14001 and ISO 21469.