Product Information:  
Product: Sodium hydride, 60% dispersion in mineral oil, in soluble bags

<table>
<thead>
<tr>
<th>Acros code number:</th>
<th>18986-0000</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number:</td>
<td>7646-69-7</td>
</tr>
<tr>
<td>EINECS number:</td>
<td>231-587-3</td>
</tr>
<tr>
<td>TSCA:</td>
<td>listed</td>
</tr>
<tr>
<td>MDL code number:</td>
<td>MFCD00003471</td>
</tr>
<tr>
<td>Molecular formula:</td>
<td>HNa</td>
</tr>
<tr>
<td>Molecular weight:</td>
<td>23.99 g/mol</td>
</tr>
</tbody>
</table>

Typical Properties:  
Appearance: light grey tacky powder

Assay: 57 – 63 % NaH
Melting point of NaH: 425 °C (decomposition)
Flash point of mineral oil: 165 °C
Particle size: 5 – 50 µm
Bulk density: approx. 0.60 g/cm³
Solubility: reacts with water, and ethanol
Stability: stable in dry air up to 230 °C

General Information: Sodium hydride is a very strong base used for condensation reactions like Claisen¹,²,³ and Dieckmann⁴,⁵ condensation, for C, N, O-alkylation, acylation, Aldol addition, synthesis of sodium alcoholates and sodium borohydride, etc.. Since NaH is sensitive to air and humidity, this product has been packaged in bags* which are soluble in common aprotic organic solvents (see below table), and which makes it easy to bring it directly into a chemical reactor without any complicate handling procedure before.

* Material: Poly(styrene-co-butadiene); Thickness: ~60 µm
Solvent | Appearance of the solution at 25 °C | Result
--- | --- | ---
Cyclohexane | clear | suitable
tert-Butyl methyl ether | clear | suitable
Diethyl ether | turbid | suitable
N,N-Dimethylacetamide | turbid | suitable
N,N-Dimethylformamide | turbid | suitable
Ethylene glycol dimethyl ether | clear | suitable
Heptane | bigger parts (turbid at 60 °C) | moderately suitable
Hexane | bigger parts (clear at 60 °C) | moderately suitable
2-Methyltetrahydrofuran | clear | suitable
Tetrahydrofuran | clear | suitable
Toluene | clear | suitable

Please notice that Sodium hydride reacts vigorously with water evolving hydrogen (H$_{298}^\mathrm{f}$ = -132 kJ/mole).

Storage Conditions: Store in a cool dry place (water free area); store in a tightly closed container; keep under a nitrogen blanket.

Material Safety Data Sheet: A Material Safety Data Sheet (MSDS) according to EU guideline 91/155/EWG can be downloaded from our website [http://www.acros.com](http://www.acros.com)

Literature: Fieser: 1, 1075; 2, 382; 4, 452; 5, 610; 6, 541; 7, 335; 8, 458; 9, 427; 11, 486; 12, 447; 14, 288; 16, 307.

Merck: 11, 8573; 12, 8770; 13, 8699, 14, 8625

The information submitted in this publication is based on our current knowledge and experience. In view of the many factors that may affect processing and application, these data do not relieve processors of the responsibility of carrying out their own tests and experiments. Neither do they imply any legally binding assurance of certain properties or of suitability for a specific purpose. It is the responsibility of those to whom we supply our products to ensure that any proprietary rights and existing laws and legislation are observed.