**Description**

The Centra™ Gold Bulk System is a range of high energy, water resistant, pumped emulsion blends. Centra™ Gold is a chemically sensitized, variable density product.

**Application**

Centra™ Gold is specifically designed for quarry and construction blasting applications in both wet and dry conditions. The Centra™ Gold Bulk System is not suitable for blasting in ground containing reactive sulfides.

**Key Benefits**

- Centra™ Gold is manufactured and delivered with precise control at a rate to enhance your productivity compared to traditional quarry blasting.
- Centra™ Gold is an energetic explosive with proven reliability in the most difficult blasting applications.
- The increased energy of Centra™ Gold enables pattern expansion resulting in reduced drilling and quarrying costs.
- Centra™ Gold maximizes energy and promotes muckpile movement.
- Centra™ Gold provides fully coupled explosive charges to maximize blasting outcomes.
- The high on-bench productivity of the Centra™ Gold range means faster delivery and turnaround of shots.

**Recommendations for Use**

**Blasthole Charge Length**

Taking into consideration blasthole diameter, expected product density, and the presence of water in the blasthole, Centra™ Gold is suitable for use in holes up to 25 meters (82 feet) in depth. Please consult an Orica Technical Representative for application guidelines.

**Priming and Initiation**

Centra™ Gold is a booster sensitive emulsion and must be in direct contact with an appropriately sized Pentex™ booster. For the recommended booster sizes, proper initiation relies on achieving typical in-hole gassed densities. The use of detonating cord may adversely affect the performance of the Centra™ Gold series and could result in misfires. Consult an Orica Technical Representative before attempting to use with detonating cord.

**Charging**

Centra™ Gold is delivered by Orica in Mobile Manufacturing Units (MMU™). Centra™ Gold is manufactured on the MMU™ and pumped into blastholes on demand.

**Sleep-Time within Blastholes**

The recommended maximum sleep time is 1 month. Sleep time is dependent on factors such as blasthole diameter, density, ground water conditions and initiation system. An Orica Technical Representative should be consulted if special conditions exist.

**Ground Temperature**

These products are available for use in ground temperatures 0°C (32°F) to a maximum of 55°C (131°F). If your application

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**Technical Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Percent Emulsion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density (g/cc)</td>
<td>70%</td>
</tr>
<tr>
<td>Typical Cup Density</td>
<td>0.95 - 1.05</td>
</tr>
<tr>
<td>Typical In-hole Density</td>
<td>1.05 - 1.17</td>
</tr>
<tr>
<td>Minimum Blasthole Diameter</td>
<td>3 inch</td>
</tr>
<tr>
<td>Hole Type</td>
<td>Wet or Dry</td>
</tr>
<tr>
<td>Delivery System</td>
<td>Pumped</td>
</tr>
<tr>
<td>Recommended minimum Pentex™ booster for blasthole diameter (2)</td>
<td>¾-lb / 340 g</td>
</tr>
<tr>
<td>Typical VOD (3)</td>
<td>m/s (1,000s)</td>
</tr>
<tr>
<td></td>
<td>4.7 - 5.7</td>
</tr>
<tr>
<td></td>
<td>ft/s (1,000s)</td>
</tr>
<tr>
<td>Relative Effective Energy (REE) (4)</td>
<td>RWS</td>
</tr>
<tr>
<td></td>
<td>100 - 108</td>
</tr>
<tr>
<td>Sleep Time</td>
<td>1 month</td>
</tr>
</tbody>
</table>

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For blasthole diameter (2): ¾ - lb / 340 g

For Typical VOD (3): 4.7 - 5.7 m/s (1,000s)

For Relative Effective Energy (REE) (4): 100 - 108 RWS
requires you to operate outside this temperature range, please contact your Orica Technical Representative.

Storage and Handling

Product Classification Canada
Authorized Name: Centra™ Gold 70
Centra™ Gold 100
Proper Shipping Name: Explosive, blasting, type E
UN Number: 0332
Classification: 1.5D

Product Classification USA
Authorized Name: Centra™ Gold 70
Centra™ Gold 100
Proper Shipping Name: Ammonium Nitrate Emulsion
UN Number: 3375
Classification: 5.1

All regulations pertaining to the handling and use of such explosives apply.

Disposal
Disposal of explosive materials can be hazardous. Methods of safe disposal of explosives may vary depending on the user’s situation. Please contact an Orica Technical Services Representative for information on safe practices.

Safety
Centra™ Gold is relatively insensitive to accidental initiation by shock, friction, or mechanical impact under normal conditions of use. Detonation may occur from heavy impact or excessive heating, particularly under conditions of confinement.

Explosives based on Ammonium Nitrate such as Centra™ Gold may react with pyritic materials in the ground and create potentially hazardous situations. Orica accepts no responsibility for any loss or liability arising from use of the product in ground containing pyritic or other reactive material.

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Emergency Telephone Numbers
For chemical emergencies (24 hour) involving transportation, spill, leak, release, fire or accidents:
Canada: Orica Canada emergency response 1-877-561-3636
USA: Chemtrec 1-800-424-9300

Notes:
(1.) Nominal density only.
(2.) Where ground movement is likely or charge lengths are in excess of 20 feet (6.1 meters) Orica recommends the use of insurance primers.
(3.) The actual VOD depends on the conditions of use including the diameter of the hole and the degree of confinement. VODs can be higher in holes greater than 4 inches (102mm).
(4.) The “Relative Effective Energy” (REE) of an explosive is the energy calculated to be available to do effective blasting work. All energy values are calculated using the IDeX™ computer code owned by Orica for the exclusive use of its companies. Energy values are based on standard ANFO with a density of 0.84 g/cc and a cut-off pressure of 100Mpa. Other computer codes may give different values.