Aquacharge™ Clear-i System
Australia

Description
Aquacharge™ Clear-i is a member of Orica’s family of explosive products formulated for use where the generation of post blast fume could be experienced in mildly reactive ground. It is specifically designed for use in dewatered blastholes.

Application
There are numerous causes of post-blast fumes, including ground conditions, geology, blast design, initiation sequence, explosive loading technique and explosive selection. Aquacharge™ Clear is recommended for use with Orica’s Fume Risk Reduction process in environmentally sensitive areas where reactive ground is encountered. An assessment of current blasting practices and fume quantification are the first steps in fume management.

Incorrect application of this product may result in elevated levels of undesirable post blast fume.

Key Benefits
• Aquacharge™ Clear-i Reduces fume from blasting operations when used in conjunction with good loading practices.
• Aquacharge™ Clear-i is designed to give superior reliability in dewatered blastholes.
• The integrated product and delivery systems of the Aquacharge™ Clear-i System ensures accuracy, productivity and dependability of supply.
• Aquacharge™ Clear-i can be loaded at varying energies and densities.
• Manufacturing rates of Aquacharge™ Clear-i up to 500kg/min delivers high on-bench productivity.
• Aquacharge™ Clear-i is effective in managing both reactive ground and fume prone ground.

Recommendations for Use
Blasthole Charge Length
Aquacharge™ Clear-i is suitable for charge lengths of up to 45 metres, depending on blasthole diameter, product density

and presence of water. Please contact an Orica Technical Representative for further information.

Charging
The Aquacharge™ Clear-i System is delivered by Orica’s Mobile Manufacturing Units (MMU™) ensuring the reliability and productivity of your blasting operations. Aquacharge™ Clear-i is manufactured on the MMU™ and loaded into blastholes on demand.

Care should be taken to ensure the blasthole has been successfully dewatered before loading Aquacharge™ Clear. The water recharge rate should be less than 1 m in 4 hours.

Sleep-Time Within Blastholes
Maximum sleep time in reactive ground.

The maximum sleep time will need to be determined based on testing of the reactive ground.
Maximum sleep time in unreactive ground

The maximum sleep time in unreactive ground is 21 days. However, 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.

Reactive Ground and Ground Temperature

Reactive Ground\(^\text{(1)}\) - Aquacharge™ Clear-i has been specifically designed for use in reactive ground.

Elevated Temperature\(^\text{(1)}\) - Aquacharge™ Clear-i is suitable for use in ground temperatures of 0º up to 55ºC.

If your application requires you to operate outside this temperature range please contact an Orica Technical Representative for further information.

Gassing Time

Allow at least 30 minutes between loading and stemming blastholes.

Product Quality

Orica’s bulk emulsion explosives are manufactured and loaded using an ISO9001 accredited quality process. The Aquacharge™ Clear-i System of bulk explosives has been developed by Orica Australia specifically for the mining industry using ISO9001 accredited research and engineering processes.

Storage and Handling

Product Classification

Authorised Name: Aquacharge™ Clear-i
Correct Shipping Name: Explosive, Blasting, Type E
UN No: 0241
Classification: 1.1D

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 a local Orica representative for information on safe practices.

Safety

Aquacharge™ Clear-i 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.

Aquacharge™ Clear-i incorporates additives, which inhibit exothermic reactions, which may occur between the explosive and the rock when blasting in reactive (eg. pyritic) ground. The suitability of the Aquacharge™ Clear-i for any particular application must be laboratory tested prior to use.

More detailed information can be found in the product Material Safety Data Sheet.

Disclaimer

© 2017 Orica Group. All rights reserved. All information contained in this document is provided for informational purposes only and is subject to change without notice. Since the Orica Group cannot anticipate or control the conditions under which this information and its products may be used, each user should review the information in the specific context of the intended application. To the maximum extent permitted by law, the Orica Group specifically disclaims all warranties express or implied in law, including accuracy, non infringement, and implied warranties of merchantability or fitness for a particular purpose. The Orica Group specifically disclaims, and will not be responsible for, any liability or damages resulting from the use or reliance upon the information in this document.

The word Orica and the Ring device are trademarks of the Orica Group.

Emergency Telephone Numbers

Within (country): 1800 033 111
Outside (country): 61 3 9663 2130

21/07/17
2 of 3
Notes:
(1.) Reactive ground and elevated temperature as defined in the Australian Explosives Industry Safety Group (AEISG) Code of Practice for Elevated Temperature and Reactive Ground.
(2.) Please contact your Orica Mining Services representative for information on our detailed Fume Risk Reduction process.
(3.) Nominal density only.
(4.) Only self-supporting product should be loaded above 45m columns of Aquacharge™ Clear-i in holes up to 80m in depth. Please consult an Orica Mining Services Technical Representative for correct product selection.
(5.) The actual VOD depends on the conditions of use including the diameter of the hole and the degree of confinement. The range quoted refers to unconfined minimum diameter up to calculated ideal VOD.
(6.) REE is the Effective Energy relative to ANFO at a density of 0.8 g/cm3. ANFO has an effective energy of 2.30 MJ/kg. Energies quoted are based on ideal detonation calculations with a 100MPa cut off pressure.