



PRODUCT DATA ——— FESI-BOND BLAST

GENERAL

FESI-BOND BLAST® patented blast-abrasive additive, heavy-metal stabilizer uses complex chemistries capable of converting Pb and other metals to insoluble minerals, including various apatites and chloropyromorphite. These minerals include the least soluble form of Pb known to man, and control the leaching of Pb and other heavy metals in spent blast-abrasive waste under TCLP and other regulatory leaching tests.

DESCRIPTION

A food-grade, worker-safe, ivory colored material that can be safely pre-blended with blasting abrasive.

PHYSICAL CHARACTERISTICS

Appearance: Ivory-colored granules

Odor: Odorless

Specific Gravity: 2.31

Density: 40lbs/cft loose – 50 lbs/cft tamped

Mesh Size: Approximately 30 Mesh

Boiling Point: Not Applicable

Particle Shape: Sub-rounded to sub-angular

Reactivity in water: None

OTHER CHARACTERISTICS

Radioactivity: Undetectable above background

Toxicity: Nontoxic (oral, dermal, eye)

Environmental Toxicity: 96-hr EC50 Daphnia magna: >1000 mg/L

Solubility: 0.017 grams per 100 ml

Conductivity: None

pH: 7.0 in 10:1 H₂O solute slurry

Total Chlorides: < 50 ppm (blast)

Soluble Salts: < 100 ppm (blast)

Moisture Content: < 0.5%

Free Iron: Trace

Other Heavy Metals: None

Free Silica Content: None

BLENDING RATE

Pre-blending rate with blast abrasive is 2% by weight. Blast-abrasive distributors across the nation can provide this pre-blending.

ADDITIONAL INFORMATION

FESI-BOND® is not like many other stabilizers that trick the TCLP test through pH stabilization alleged “encapsulation.” FESI-BOND® patented formulation was invented by a Magna Cum Laude engineering graduate, licensed professional environmental engineer, and published stabilization expert to permanently transform heavy metals into insoluble minerals. The USEPA has recognized FESI-BOND® as a cost effective and environmentally friendly remediation technique. Studies on FESI-BOND® stabilized hazardous wastes find it the best method available for stabilization of materials such as lead. FESI-BOND® is truly a green product for today’s industry. The patented recipe for FESI-BOND BLAST® uses a food-grade stabilizer that does not present any hazard to the worker or the environment. Many other stabilizers are not as friendly. Also, unlike stabilizers that add 15% or more additive to the abrasive, FESI-BOND BLAST® only requires 2% addition by weight. This low-additive dosage significantly reduces dust from the blasting process. Finally, FESI-BOND can pass the stringent USEPA Method 1320 MEP leach test, which measures the long-term diffusion of heavy metal from waste, often used at Superfund projects.

INDUSTRIES USING THIS TECHNOLOGY

For 20 years, FESI-BOND® technologies have been used successfully at industrial facilities and remedial sites throughout the world on over 2,000,000 tons of hazardous waste. Now this technology has been made available to the abrasive-blast industry. Industrial blasting and coating companies across the U.S. have started to use this state-of-the-art stabilizer. Agencies that have approved FESI-BOND® include: USEPA, WADOE, USNAVY, NHDES, PADEP, NYSDEC, MADEP, CTDER, TCEQ, NJDEP, OKDEQ, VADWM, CAEPA, USBR, USACE, USAF, WSDOT, City of Seattle, Avista Utilities, Chelan County PUD, and many others.

GUARANTEE

FESI guarantees* that the pre-blended spent abrasive waste from blast operations on lead-bearing paints will pass the TCLP test.

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