



UltraLime

Q1: What is **UltraLime**?

UltraLime is an alternative to on-site lime slaking - you can eliminate all the hassle, direct and indirect costs associated with lime slaking.

Q2: What are the soft savings from using **UltraLime**?

There are numerous non-monetary benefits including:

- **Safety**
- **Employee morale**
- **Employee utilization**

Q3: What type of maintenance benefits can be expected?

UltraLime dramatically reduces manhours for manual or chemical cleaning of lime slurry feed lines, feed pumps, and storage tanks.

Q4: Where has the product been used?

There are dozens of satisfied **UltraLime** users - references can be provided upon request.

Q5: Is a COA provided with deliveries?

Yes, ASI provides a detailed COA with every delivery upon request.

Q6: How fast does it work?

UltraLime starts to work immediately. The time it takes to see the performance impact is determined by the volume of lime slurry in inventory and the slurry consumption rate.

Q7: What is the property of **UltraLime** that is key to its success?

UltraLime is comprised of uniformly sized **lime particles that resist agglomeration and are easily dispersed** - thus providing more surface area for the lime reaction to occur.

Q8: What are the direct cost savings of **UltraLime**? How does **UltraLime** pay for itself?

Although each lime user is different - **UltraLime** has proven to have an enormous financial impact for many lime users by lowering Total Cost of Operation (TCO):

- **Lower Lime Costs**
- **Eliminate lime scale**
- **No water added**
- **Reduce energy costs**
- **Reduce waste disposal costs**
- **Improve reliability**
- **Better control**
- **Reduce flue gas emissions**

Q9: Is it NSF and FDA approved?

Some **UltraLime** products are NSF certified for use in drinking water applications. The FDA approves products based on their chemical name and the specific use as listed in 21 CFR. Calcium hydroxide and sodium polyacrylate are found in most all uses where the product comes in direct contact with food and are recognized as GRAS.



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Q10: How do I use **UltraLime**? Do I need special feed equipment?

UltraLime is used the same way you use your lime now, except **UltraLime** is so much easier and safer to use. Generally, you can use the same equipment used with other lime slurries. We will assist in recommending and setting up the proper feed equipment.

Q11: What is the recommended dose and will the dose vary?

The dose of **UltraLime** is application specific and will vary according to changing process conditions. **UltraLime** dose is typically much lower than other lime slurries.

Q12: Is it ecologically toxic?

UltraLime has very low aquatic toxicity - 96 hr LC50 to *Gambusia affinis* of 100-1000 mg/L in water.

Q13: How much mixing can **UltraLime** withstand?

UltraLime can be mixed 24/7 without any damage to the product and no pumping or performance problems.

Q14: How do you minimize the grit in the product?

UltraLime is filtered to minimize troublesome grit.

Q15: Does the use of **UltraLime** cause any problems I should be aware of?

UltraLime softens and removes existing lime scale. Therefore, during the initial dosing period and until the system has been cleaned - it is not uncommon to see slugs of viscous lime slurry. This is lime scale that has been removed from walls of the slaker, tanks, pipes, pumps, etc. Don't be alarmed by this - but do take precautions to avoid loss of lime slurry flow during this period.

Q16: How many **UltraLime** products do you have and how do they compare?

The 2 largest volume products are **UltraLime** CX PLUS and a custom blend **UltraLime** CB6040. **UltraLime** CX PLUS is 98%+ Ca(OH)₂ while **UltraLime** CB6040 is 60% Ca(OH)₂ and 40% Mg(OH)₂. We manufacture custom blends as needed to provide customers with the best-performing **UltraLime** for their specific needs.

Q17: How does **UltraLime** reduce risks associated with respirable SiO₂?

Lime slurry manufactured from quicklime has no measurable SiO₂ content because all hazardous crystalline silica is converted to non-hazardous calcium silicate during high temperature slaking. ASI uses only quicklime. Most other lime slurries use dry hydrated lime which is not slaked and the SiO₂ is not converted.

Q-18: What are the patent numbers covering this technology?

7,718,085, 7,897,062 and 9,309,151