INNOVATIVE CHEMICAL TECHNOLOGIES FOR IMPROVED FERTILIZER QUALITY, HANDLING & PERFORMANCE

FERTILIZER CHEMICALS

With rising demand for quality fertilizers, increased competition, and stricter environmental, health and safety (EHS) regulations, the fertilizer industry is being challenged to deliver better quality, high-performance fertilizer products to their customers. In order to help you compete and succeed in the marketplace, ArrMaz provides a wide range of fertilizer process aid additives, coatings and engineering services to enable you to optimize your process performance, maximize production efficiency and produce superior fertilizer products for your customers.

As a global market leader in the provision of specialty chemicals to the fertilizer industry, ArrMaz can provide you with a complete product and equipment package to help you succeed.

FERTILIZER APPLICATIONS & BENEFITS

Whether you’re looking for improved yield, increased throughput or reduced emissions, ArrMaz has the right product for your application.

We will conduct onsite testing with no impact to current operations, recommend customized fertilizer additives and coatings, and implement a tailored application system to meet your unique needs.

KEY BENEFITS

ArrMaz fertilizer solutions deliver:

- Significant dust reduction for easier fertilizer handling and improved worker safety
- Improved production capacity and efficiency
- Substantially reduced caking of fertilizer
- Improved flowability for ease of handling, storage and transportation
- Enhanced fertilizer quality, color and appearance
- Improved stability of micronutrient fertilizer blends
- Easier compliance with Environmental, Health and Safety (EHS) Standards
- Better compatibility in end use applications

PRIMARY APPLICATIONS

ArrMaz fertilizer chemicals are engineered to optimize the following processes:

- Dust Control
- Anti-Caking
- Coloring
- Foam Control
- Granulation
- Filtration
- Blending
MARKET APPLICATIONS

ArrMaz process aids, additives and coatings can be used in the production of the following fertilizers:

- MAP / DAP
- AS
- GTSP
- Potash
- Urea
- NPK
- Micronutrients
- Specialty Blends
- And More

FERILIZER CHEMICALS
DUSTROL® | GALORYL® | Microstickers™

<table>
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<tr>
<th>PRODUCT TYPES</th>
<th>APPLICATIONS</th>
<th>BENEFITS</th>
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<tr>
<td>Dust Control Coatings</td>
<td>All solid fertilizers Ground dust control (DAP, MAP, GTSP, NPK, SOP, AN, AS, KNO₃, Urea, KCl Biosolids and Micronutrients)</td>
<td>Prevents and reduces dust during storage, shipping and use Regulatory compliance</td>
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<tr>
<td>Anti-Caking Coatings</td>
<td>All solid forms of fertilizer (such as granular, prilled and powders)</td>
<td>Controls caking during storage and shipping Limits pile set during storage</td>
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<td>Coloring Agents</td>
<td>Granular fertilizer</td>
<td>Provides a quality uniform appearance Creates unique product identification</td>
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<tr>
<td>Defoamers</td>
<td>Wet process phosphoric acid production Granular fertilizer production</td>
<td>Increases production capacity and efficiency Improves agitation / mixing and slurry circulation</td>
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<tr>
<td>Granulation Aids</td>
<td>Phosphate granulation Potash granulation NPK fertilizer granulation</td>
<td>Improved granulation capacity Improves quality of granule structure Promotes rapid granulation</td>
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<tr>
<td>Flocculants, Filtration and Clarification Aids</td>
<td>Gypsum filtration in phosphoric acid production Phosphoric acid clarification</td>
<td>Improves production rates Improves recovery Lowered impurity content Higher finished product grade Improved clarifier performance</td>
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<tr>
<td>Binders</td>
<td>Macronutrient and micronutrient fertilizer</td>
<td>Stable micronutrient fertilizer blend (90 days) Low dust levels during storage, handling and transport Higher finished product grade Better product appearance and color</td>
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THE ARRMAZ ADVANTAGE

Since 1967, ArrMaz has been a trusted partner to fertilizer manufacturers and distributors worldwide, delivering innovative chemical solutions for process improvement with superior responsiveness, expert technical advice and outstanding customer support. Each year, we coat more than 40 million tons of fertilizer for some of the world’s largest fertilizer producers. Let us do the same for you.

Contact ArrMaz today to discover how our high-quality custom fertilizer solutions can improve your product and process.

Email Fertilizer@ArrMaz.com or call +1-863-578-1206 for further information.

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