



Anticaking aids

Free flowing materials for easier handling and storage



Anticaking is a post treatment function focused on maintaining the flowability of powders and granules during storage, transport, and downstream handling. Many mining materials are hygroscopic and prone to moisture driven caking, which can disrupt handling, reduce product quality, and create unplanned downtime.

Performance risk concentrates at this stage because caking and clumping can quickly propagate into handling inefficiencies, dusting, rework, and interruptions across mining operations.

Function led control of moisture interaction and particle adhesion

Anticaking chemistry is applied to control how bulk solids interact with moisture and with each other during storage and handling.

Hydrophobic surface modification

Surface active chemistry forms thin hydrophobic coatings on particles, reducing moisture adsorption and limiting liquid bridge formation that leads to caking.

Stabilization of bulk material flow

By minimizing inter particle adhesion, anticaking agents help preserve free flowing behavior in powders and granules exposed to humidity, pressure, or temperature variation.

Compatibility with post treatment systems

Anticaking agents are designed for application in conveyor, spray, coating, and granulation systems without altering the bulk properties of the material.

These functions position anticaking chemistry as a material stability enabler, not simply a finishing step.

Operational outcomes

- Improved flowability of powders and granules during storage and transport
- Reduced caking, clumping, and blockages in bulk handling systems
- Lower risk of dusting, rework, and unplanned downtime
- More consistent material quality for downstream processing

How this works in practice

These chemistries control moisture interaction and particle adhesion for multiple mineral types and handling environments—enabling consistent, free-flowing behavior under real storage and transport conditions.

The example on page 2 shows how real results are delivered. Evaluate your anticaking solutions and start a discussion at nouryon.com/mining/anticaking

Core brand:

- Armeen® anticaking aids

Case Example: Preventing caking in hygroscopic potash (MOP)

Challenge

MOP absorbs moisture, leading to compaction, caking, and poor flow during storage and handling.

Solution

Cationic surfactant coating reduces moisture uptake and particle adhesion.

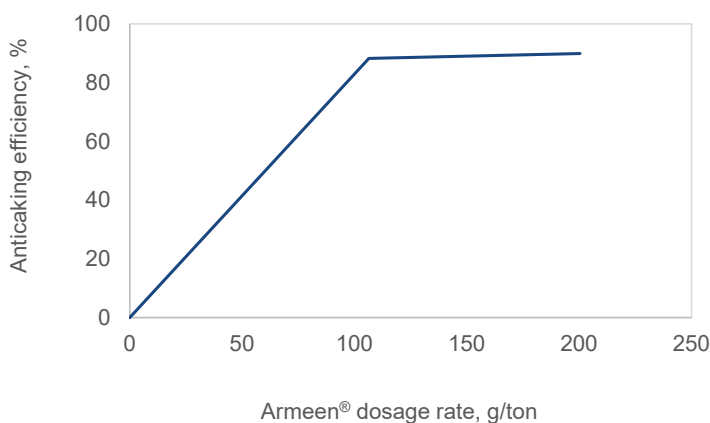
Proven performance

- Up to ~90% reduction in caking tendency
- Significant improvement in flowability

Impact

- Maintains free-flowing product
- Reduces handling and rework
- Improves bulk material movement

Control caking to ensure reliable potash handling.



Review your anticaking solutions – request technical guidance at nouryon.com/mining/anticaking

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