



Prescriptive Agronomic Formulations

Sodium-pHix™

Natural Gypsum Mineral Balances Soil Salinity



Available in two formulations, Sodium-pHix can be applied using a hydraulic seeder or broadcast spreader to help lower the salinity and increase the level of calcium in the soil.

Conditions Calcium Deficient or Saline Soils to Enhance Vegetation

ProPlus® Sodium-pHix™ is a natural gypsum mineral (calcium sulfate dihydrate) that lowers sodium levels in soil to enhance vegetation. After it is absorbed into the soil matrix through rain or irrigation water, Sodium-pHix increases the electrolyte concentration and provides calcium to create an ion exchange reaction with sodium. This process improves the soil's physical and chemical properties, controlling soil salinity and increasing calcium content.

Soluble, natural gypsum mineral is mined from an open pit quarry, crushed and processed into a fine granular ingredient. For use with hydroseeding or irrigation water applications, Sodium-pHix Hydro contains a suspending agent which allows for a more uniform distribution and faster release to improve plant establishment from seed. The 1/8-inch minus Granular Broadcast Sodium-pHix is spread using broadcast methods at a fraction of the cost of gypsum pellets. The larger particle size offers a slow-release solution for established grasses and native plants, providing a long-term soil solution.

High-purity Sodium-pHix is proven to:

- **Stay In Suspension**—A suspending agent ensures consistent mixing and uniform distribution of materials, even if they don't include a fiber mulch.
- **Improve Soil Structure**—Gypsum provides calcium, which can flocculate clay soils and reduce the swelling of smectite and open pore spaces, improving the penetration of water, air and roots into the soil.
- **Increase Water Infiltration**—As the soil structure improves, the water infiltration rate and hydraulic conductivity of the soil increases.
- **Prevent Crust Buildup**—Increasing the electrolyte concentration of the irrigation water can prevent depositional crusts on soil surfaces, which can adversely affect water infiltration rates and seed emergence and germination.
- **Enhance Moisture Retention**—Gypsum helps soil take in and retain moisture, which is especially critical in times of drought.
- **Improve Fertilization**—Supplies bio-available calcium and sulfur, elements vital to proper plant growth and development.
- **Enhance Nutrient Absorption**—Calcium regulates the balance of micronutrients in grass plants and optimizes the calcium-to-magnesium ratio in soils.
- **Be Environmentally Safe**—Sodium-pHix is inert and non-toxic as it is mined from the same gypsum deposit as food- and pharmaceutical-grade calcium sulfate.
- **Have a Positive Irrigation Effect**—Controlling soil salinity with appropriate water management is especially important because soils with high sodium content do not perform as well as calcium-rich soils.

Sodium-pHix™ Hydro Formula

DRY WEIGHT GUARANTEED ANALYSIS

Calcium Sulfate Dihydrate	94.0%
Calcium Sulfate	72.0%
Calcium (Ca)	21.0%
Sulfur (S)	17.0%

TYPICAL PHYSICAL PROPERTIES

Appearance	White Powder
Specific Gravity	2.32
Bulk Density	51 lb/ft ³
Moh Hardness	2.0
pH	7.5

Rate of Dissolution

30 Seconds	97.4%
60 Seconds	100.0%

TYPICAL PARTICLE SIZE DISTRIBUTION

Particles Passing ASTM Sieves

50 Mesh	100.0%
100 Mesh	97.8%
200 Mesh	84.0%
325 Mesh	65.0%

*Certificate of Analysis and MSDS available upon request

DIRECTIONS FOR USE

Have a soil test performed by a reputable lab. Request tests: SAR, CEC% Sodium. Compare the results to the Application Rate chart below to calculate appropriate rate. Load all components in the hydro-seeder, add Sodium-pHix to the tank as you load your fertilizer, mix under normal agitation and apply to the soil surface.

TYPICAL APPLICATION RATES

(For best results, have your soil analyzed by a reliable testing laboratory.)

SAR ¹	CEC% Sodium ²	Sodium-pHix Hydro Particle Planting Rate
1.5 - 3	2 - 4%	500 lb/ac
3 - 4	4 - 6%	1000 lb/ac
4 - 5	6 - 8%	1500 lb/ac
5 - 6	8 - 10%	2000 lb/ac

¹ Sodium Absorption Ratio ² Sodium as % Base Saturation Cation Exchange Capacity

For maximum establishment effectiveness, apply Broadcast particle annual maintenance rate prior to planting and turn over "till" to approximately 1 - 2" soil depth; then apply Hydro particle rate when planting. For SAR and CEC% Sodium ranges higher than shown in the chart, please contact Profile Products.

PACKAGING

Bags: Net Weight – 50 lb, UV and weather-resistant plastic film.

Pallets: Weather-proof, stretch-wrapped with UV resistant pallet cover, 40 bags/pallet, 1 ton/pallet.

Sodium-pHix™ Granular Formula

DRY WEIGHT GUARANTEED ANALYSIS

Calcium Sulfate Dihydrate	94.0%
Calcium Sulfate	72.0%
Calcium (Ca)	21.0%
Sulfur (S)	17.0%

TYPICAL PHYSICAL PROPERTIES

Appearance	White to Buff
Specific Gravity	2.32
Bulk Density	74 lb/ft ³
pH	7.5

TYPICAL PARTICLE SIZE DISTRIBUTION

Particles Passing ASTM Sieves

60 Mesh	> 30.0%
1/2" Screen	100.0%

*Certificate of Analysis and MSDS available upon request

DIRECTIONS FOR USE

Have a soil test performed by a reputable lab. Request tests: SAR, CEC% Sodium. Compare the results to the Application Rate chart to the right to calculate appropriate rate. Use as spot treatment for problem areas or in general broadcast application. Water after application if possible.

TYPICAL APPLICATION RATES

(For best results, have your soil analyzed by a reliable testing laboratory.)

SAR ¹	CEC% Sodium ²	Sodium-pHix Broadcast Particle Annual Maintenance Rate
1.5 - 3	2 - 4%	1000 lb/ac
3 - 4	4 - 6%	2000 lb/ac
4 - 5	6 - 8%	3000 lb/ac
5 - 6	8 - 10%	4000 lb/ac

¹ Sodium Absorption Ratio ² Sodium as % Base Saturation Cation Exchange Capacity

For maximum establishment effectiveness, apply Broadcast particle annual maintenance rate prior to planting and turn over "till" to approximately 1 - 2" soil depth; then apply Hydro particle rate when planting. For SAR and CEC% Sodium ranges higher than shown in the chart, please contact Profile Products.

PACKAGING

Bags: Net Weight – 50 lb, UV and weather-resistant plastic film.

Pallets: Weather-proof, stretch-wrapped with UV resistant pallet cover, 40 bags/pallet, 1 ton/pallet.



For distributor location or technical information call 1-800-508-8681. For customer service call 1-800-366-1180.
©2009 PROFILE Products LLC, all rights reserved.
750 Lake Cook Road · Suite 440 · Buffalo Grove, IL 60089

www.profileproducts.com



ProPlus is a registered trademark of PROFILE Products LLC. Sodium-pHix is a trademark of PROFILE Products LLC.