STORAGE TANKS AND PLUMBING

Tanks and foundations should be designed for material which weighs 13 pounds per gallon. Tanks, pipelines, hoses or pumps that have contained chemicals other than N-pHURIC should be rinsed thoroughly prior to receiving N-pHURIC.

Polyethylene, polypropylene, 316 stainless steel, and some fiberglass are acceptable materials for construction of storage tanks. PVC pipe may be used for piping, but 316 stainless steel is preferred. Safety and identification signs should be located at valves and connections of storage, transport, and field equipment.

EQUIPMENT/ FACILITY RINSE

Thorough rinsing of field equipment is required after using N-pHURIC. Dilute residues are corrosive, so neutralization is an essential part of the clean-up. Recommended clean-up materials include soda ash, baking soda, or NUTRA-SOL™. Rinse equipment with pure water first to avoid excessive foaming when neutralizing. Add neutralizer to the second rinse. Run the pump long enough to clean the lines and nozzles of any N-pHURIC residue. Any remaining neutralization solution should be left until the equipment is used again. Rinse the exterior of all equipment.

DEALER/GROWER APPLICATION EQUIPMENT

	Type & Material	Manufacturers
Applicator Pumps	Centrifugal Polypropylene	
	Diaphragm	John Blue DP-280-P, DP-322-P, DP-407-P, DP-540-P, DP-605-P
	Piston	John Blue Models 1094 L-4000, L-4450, L-4900
Rollers	Polypropylene Teflon	
Seals	Ceramic/Graphite EPDM Neoprene Teflon Viton	

NYLON

NYLON CANNOT BE USED WITH N-pHURIC. Particular caution must be observed when using plastic storage systems to ensure that **no nylon** plugs or plumbing be included. Failure of nylon when exposed to concentrated N-pHURIC is rapid and could produce an expensive cleanup and loss of product.

Nylon rollers **CANNOT** be used in any roller pump application. Polypropylene or Teflon must be used.

POLYESTER FRP

Polyester FRP (Fiber Reinforced Plastic) will provide satisfactory service provided the material is made with isophthalic resins. Polyester FRP made with orthophthalic resins should not be used for N-pHURIC service.

POLYETHYLENE

Polyethylene is chemically compatible with N-pHURIC. High density or cross-linked polymers are strongly recommended if polyethylene is used for long-term bulk storage. Polyethylene fittings (hose barbs, tees, nozzle bodies, etc.) will provide adequate service. Caution should be used with any application where mechanical or heat stress may be encountered. Polyethylene is susceptible to damage from over-tightening, especially when mated to metal parts. The liberal use of Teflon sealing tape is preferable to over-tightening of poly parts.

POLYPROPYLENE

Polypropylene is chemically compatible with N-pHURIC. It is suitable for use in plumbing, fittings, regulators, etc., and is strongly recommended as the material of choice for rollers in roller pump applications. Caution should be used with any application where mechanical or heat stress may be encountered. Polypropylene is susceptible to damage from over-tightening, especially when mated to metal parts. The liberal use of Teflon sealing tape is preferable to over-tightening of poly parts.

PVC, CPVC

PVC is chemically compatible with N-pHURIC. Equipment fittings and plumbing made of PVC will provide good service. Caution must be used where heat, vibration, or other mechanical stress will be encountered.

RYTON

Ryton is compatible with N-pHURIC.

GROWER APPLICATION EQUIPMENT

Commercial application equipment dedicated to N-pHURIC service should be assembled with N-pHURIC resistant components such as 316 stainless steel, synthetic rubbers, and poly plastics.

Grower equipment designated for occasional use with N-pHURIC can include most metals and plastics, including brass, aluminum, and cast iron, but not black iron, mild steel, or Celcon. Nylon rollers in roller pumps cannot be used. Polypropylene or Teflon rollers are the only acceptable materials for roller-type pumps.

"Occasional use" equates to a maximum of 100 hours of use; equipment must be rinsed and neutralized with baking soda, etc. immediately after use. Equipment must be in good condition.

Equipment	Occasional Use	Commercial Use	Manufacturers
APPLICATOR PUMPS			
Roller	Yes	**NO**	
Ni-Resist body & rotor			
Centrifugal	Yes	**NO**	
Cast Iron or Epoxy-coated	Yes	**NO**	
Polypropylene	Yes	Yes	
	Yes	Yes	
Diaphragm	Yes	Yes	Bertolini 103/SDEQ
	Yes	Yes	
	Yes	Yes	
Piston	Yes	Yes	John Blue Models 1094, L-4000, L-4450, L-4900
	Yes	Yes	
ROLLERS			
Nylon	**NO**	**NO**	
Polypropylene	Yes	Yes	
Teflon	Yes	Yes	