

## N-PHURIC 28/27 PHYSICAL AND CHEMICAL PROPERTIES

Common Name: Dicarbamide dihydrogen sulfate (DCDS) solution

DOT Proper Shipping Name: Corrosive Liquid, N.O.S. (contains dicarbamide dihydrogen sulfate)

DOT Hazard Class<sup>1</sup>: 8  
Packing Group: III

<b>Analysis:</b>	<b>Guarantee (Wt.%):</b>
<b>Total Nitrogen:</b>	28.0
Water soluble organic nitrogen:	28.0
Each gallon contains 3.32 lbs. nitrogen	

<b>Equivalent Sulfuric Acid:</b>	27.00
Sulfur from sulfuric acid equivalent:	9.00
Each gallon contains 3.20 lbs. of sulfuric acid equivalent from DCDS	

### Physical Properties:

Crystallization Temperature <sup>2</sup> :	56±3°F
Viscosity at 68°F:	115 centipoise
Specific Gravity at 68°F:	1.42
Pounds per Gallon at 68°F:	11.8
Gallons per Ton:	169

<sup>1</sup> Not regulated when shipped via ground transportation (see 49 CFR 173.154(d))

<sup>2</sup> Product readily supercools and may not immediately crystallize at lower temperatures



**IND/AG**

P.O. Box 1168  
Fresno, CA 93715  
Customer Service:  
1.866.211.4496

# N-PHURIC



**ROW CROPS**

**N-PHURIC**  
ONE CHOICE. MANY SOLUTIONS.™

ingredients for growth

## **N-pHURIC® 28/27 FOR SIDEDRESS AND WATER-RUN NITROGEN APPLICATIONS TO ROW CROPS**

### **WHAT IS N-pPHURIC?**

N-pHURIC fertilizers are made by reacting urea and sulfuric acid in a carefully controlled manufacturing process. All the acidity is retained but N-pHURIC is less corrosive and much safer to handle. N-pHURIC 28/27 is one of the three formulations available; the others are N-pHURIC 15.49 and N-pHURIC 10/55.

### **N-pHURIC acid fertilizers supply both nitrogen and sulfur.**

N-pHURIC 28/27 has 28% nitrogen as urea and 27% sulfuric acid. Each gallon of N-pHURIC 28/27 supplies 3.3 pounds of nitrogen and about 1 pound of sulfur.

### **WHY USE N-pPHURIC 28/27 AS A SIDEDRESS OR WATER-RUN FOR ROW CROPS?**

N-pHURIC 28/27 contains the largest amount of nitrogen of the three formulations and when used as a sidedress the following benefits can be realized:

1. Create an acid zone in the soil.
2. Release both macro- and micronutrients that may be tied up in the soil.
3. Add nitrogen and sulfur to the soil that may be more efficiently utilized by the plant than some other nitrogen materials.

4. Less opportunity for free ammonia to form.
5. Help improve soil tilth and increase water penetration and movement in the soil.

When used in a water-run application the following benefits can be realized:

1. Help neutralize bicarbonate in irrigation water that can negatively impact soils and crop yields.
2. Help improve soil tilth and increase water penetration and movement in the soil.
3. Add nitrogen and sulfur to the soil and may be more efficiently utilized by the plant than some other nitrogen materials.

### **WHAT ABOUT THE COSTS OF N-pHURIC 28/27 COMPARED TO OTHER NITROGEN SOURCES?**

You should always consider both the cost and the benefits when comparing fertilizer sources. UAN 32 solution is a good nitrogen fertilizer commonly used for sidedressing row crops but it does not supply sulfur. N-pHURIC 28/27 supplies both nitrogen and readily available sulfur. When

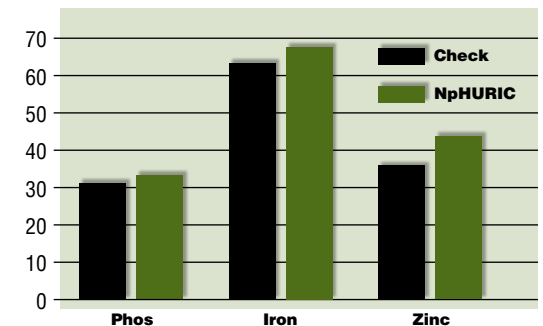
### **N-pHURIC 28/27 is clearly the most cost effective fertilizer for row crops.**



the nitrogen and sulfur are considered, the true cost of the nutrients in N-pHURIC 28/27 is about the same as the nitrogen in UAN 32 solution. The benefits of acidification, such as increased availability of phosphorus and micronutrients, can give your crop a superior growing environment compared to alternative nitrogen fertilizers. In addition, N-pHURIC 28/27 can be used to acidify irrigation water and reduce the amount of bicarbonate in the water for better penetration.

Even though UAN32 is acid in reaction, the chart shows N-pHURIC is a much stronger acidifier. This cotton trial data created by Dan Munk, UC Extension, shows an increase in tissue nutrient levels. Injected at a depth of six inches, N-pHURIC increased phosphorus 6.5%, iron 7.3%, and zinc 23.5%.

### **N-pHURIC impact on Nutrient Levels**



When you look at all the benefits, N-pHURIC 28/27 is clearly the most cost-effective fertilizer for row crops.

Storage, handling, application and irrigation equipment can be damaged by N-pHURIC if it is not constructed of the proper material. Consult the N-pHURIC reference manual or your N-pHURIC dealer before applying N-pHURIC.