

# **STRIKE SCAV**

## **UNS-6030**

### **Superior Hydrogen Sulfide Scavenger**

Field proven at between 1.75 to 2.5 x's more efficient than standard MEA Triazines, USN-6030 will deliver significant performance, environmental, and economical benefits to our customers and the Oil and Gas Industry as a whole.

#### **Benefits of Ultra Nano Scav**

- Reduce chemicals used to scavenge H<sub>2</sub>S.
- Does not precipitate solids, so 95% less to 0% system clogging diethazine under normal operating conditions.
- Can be used in flowlines, pipelines, and towers.
- Also ideal for midstream and refinery applications.
- Cut in half, the carbon footprint generated by H<sub>2</sub>S treating operations.
- Reduced flaring of natural gas by reducing the cost of treatment to affordable levels.
- Can treat much higher levels of H<sub>2</sub>S than standard MEA Triazines using lower cost direct injection.

#### **Where Ultra Scav Nano differs from MEA Triazines**

- Speed of reaction, Ultra Scav Nano can react with H<sub>2</sub>S up to 2X faster.
- Significant reduction in required residence time in "Bubble Tower" applications.
- Up to half the chemical applied to do the same scavenging job.
- Can scavenge higher levels of H<sub>2</sub>S extending the range of liquid H<sub>2</sub>S scavengers using direct injection or Ultra fab units, saving operators millions of dollars in CAPEX on maintenance of expensive treatment towers.  
Major reduction of solids precipitated, reducing toxic waste and cleanup/disposal costs. We reduce the cost of disposal of spent product by up to 50%.
- One gallon of MEA Triazine 40% active removes an average 1.1 lbs
- One gallon of USN-6030 removes an average 2.2 lbs of H<sub>2</sub>S

To be clear, Ultra Nano Scav is not MEA Triazine with the addition of another component serving as a booster or a catalyst for the MEA Triazine to work better. UNA-6030 is indeed a different fully reacted product containing a proprietary, very complex mixture of amine- based chemistry with a Nano particle to boost contact and a PH ranging from 10 to 10.6. UNA-6030 also reduces CO2 in gas systems along with the H2S.

### Typical Properties

Property	Value
Specific Gravity @ 25° C	1.01 to 1.25
Appearance	Clear to Amber Liquid
Pounds per Gallon @ 25° C	8.5 to 10.5
pH	9.5 to 10.5

## Case Studies

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<b>Location</b>	<b>Near Crystal City , South Texas</b>
<b>Gas Flow Rate</b>	<b>2 MMCF/D</b>
<b>Ave. Gas Temp.</b>	<b>85°F</b>
<b>H2S Initial Gas Phase (PPM)</b>	<b>20</b>
<b>Pipeline H2S Level Spec (PPM)</b>	<b>4</b>
<b>Incumbent Product</b>	40% MEA Triazine with
<b>Incumbent Injection Rate</b>	<b>45 Gal/Day</b>
<b>Incumbent H2S Level</b>	<b>3.8.0 PPM</b>
<b>Ultra Scav Advance Injection Rate</b>	<b>20 Gal/Day</b>
<b>Ultra Scav Advance H2S Level</b>	<b>3.5 PPM</b>

<b>Location</b>	<b>Marcellus</b>
<b>Gas Flow Rate</b>	<b>.7 MMCF/D</b>
<b>Ave. Gas Temp.</b>	<b>80°F</b>
<b>H2S Initial Gas Phase (PPM)</b>	<b>600</b>
<b>Pipeline H2S Level Spec (PPM)</b>	<b>4</b>
<b>Incumbent Product</b>	30% MEA Triazine with
<b>Incumbent bubble tower usage Rate</b>	<b>16.8 Gal/Day 500 per month</b>
<b>Incumbent H2S Level</b>	<b>3.8.0 PPM</b>
<b>Ultra Scav Advance usage Rate</b>	<b>7.5 Gal/Day 225 per month</b>

<b>Location</b>	<b>Northern Louisiana</b>
<b>Gas Flow Rate</b>	<b>1.75 MMCF/D</b>
<b>Operating Temp</b>	<b>160 Degrees Fahrenheit</b>
<b>H2S Initial Gas Phase (PPM)</b>	<b>16</b>
<b>Pipeline H2S Level Spec (PPM)</b>	<b>4</b>
<b>Incumbent Product</b>	40% MEA Triazine with
<b>Incumbent Usage Rate</b>	<b>40 Gallons Per Day</b>
<b>Incumbent H2S Level</b>	<b>4.4 PPM</b>
<b>33% Ultra Scav Nano Usage Rate</b>	<b>15 Gals Per Day 3 PPM</b>
<b>Ultra Scav Advance H2S Level</b>	<b>2 PPM</b>

<b>Gas Flow rate Bubble tower</b>	<b>2.45 MMCF/D</b>
<b>Operating Temp</b>	<b>90 Degrees Fahrenheit</b>
<b>H2S Initial Gas Phase (PPM)</b>	<b>150</b>
<b>Pipeline H2S Level Spec (PPM)</b>	<b>4</b>
<b>Incumbent Product</b>	36% MEA Triazine with
<b>Incumbent Usage Rate</b>	<b>500 gallons per month 16.66 avg. daily use</b>

Incumbent H2S Level	4. PPM
33% Ultra Scav Nano Usage Rate	250 gallons per month 8.33 gallons per day
Ultra Scav Advance H2S Level	3 PPM

