

# **Deliquescent Desiccants**

Van Air Systems is the original and leading manufacturer of tableted deliquescent desiccants for drying compressed air and natural gas.



Compressed Air Advisors, Inc.

info@compressedairadvisors.com www.compressedairadvisors.com

Phone: 877.247.2381

## Deliquescent Desiccant

Deliquescent desiccants are a dependable, cost-effective, and energy-free tool for a wide range of drying applications.

With more than 65 years of experience developing desiccant formulas at its production facilities in Lake City, Pennsylvania, Van Air Systems is the original and leading manufacture of deliguescent desiccants for drying compressed air and gases. Deliguescent desiccants are a dependable, cost-effective, and energy-free tool for a wide range of drying applications.

What is Deliquescent desiccant? Deliquesce means to dissolve. A desiccant is a drying agent. So deliquescent desiccant is a drying agent that dissolves.

### **Choosing the right desiccant.**

With vapor attracting properties, deliquescent desiccants are ideal for drying compressed air and other gases and preventing the harmful effects of moisture. It's important to choose the right grade of deliquescent desiccant. Van Air Systems offers four grades of deliquescent desiccant. Dry-O-Lite\*, which is used for drying compressed air. Our other desiccants SP, 10BF, and 4UF are all typically selected for natural gas dehydration applications. Contact us for more information on which desiccant would be best for your application.



### DRY-O-LITE®/ GasDrv™ Prime

Most Affordable Industry Leading Desiccant

DRY-O-LITE® is the industry-leading, deliquescent desiccant. It's a chemical drying agent specifically formulated for Van Air Systems Single Tower Deliquescent Dryers and Natural Gas Pipeline Dryers (PLD Series).

#### **FEATURES & BENEFITS**

- Low cost
- Energy Free
- Environmentally safe
- Up to 20°F Dew Point Suppression
- 55% Relative Humidity

### **Applications:**

- Abrasive Blasting & Painting
- Portable Air Drying
- Ready-Mix & Concrete Plants
- Wood Products
- Fuel Gas
- Low Pressure Gases

### Physical Properites

Color and form Size	White tablet 3/4" diam x 5/8" height
Bulk density	72 <u>+</u> 3 lbs/ft³
Crush Strength	60-100 lbs.

#### **Dew Point Performance**

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ı	Inlet Temperature	Outlet	Dew Point
	(saturated)	Dew Point	Suppression
ı	` 100°F	80°F	20°F
ı	90°F	70°F	20°F
ı	80°F	60°F	20°F
ı	70°F	51°F	19°F
ı	60°F	42°F	18°F
	50°F	32°F	18°F
	80°F 70°F 60°F	60°F 51°F 42°F	20°F 19°F 18°F



### GasDrv<sup>TM</sup>

Peak Performance For Natural Gas Dehydration

SP / GasDry™ Peak is a chemical drying agent formulated primarily for the dehydration of natural gas. SP is recommended for the first stage of a multiple vessel drying system.

#### FEATURES & BENEFITS

- For operating temperatures 70°F and lower
- Inhibits natural gas hydrate formation
- Prevents gas line freeze-ups
- Up to 27°F Dew Point Suppression
- 33% Relative Humidity

### **Applications:**

- High Pressure Low Temperature Sales Gas
- Fuel Gas & Biogas Dehydration
- Pre Absorbing for higher grades of desiccant

### **Physical Properites**

Color and form	White tablet
Size	1" diam x 3/4" height
Bulk density	55+ 3 lbs/ft <sup>3</sup>
Crush Strength	60-100 lbs.
Crush Strength	60-100 lbs.

#### **Dew Point Performance**

Inlet Temperature	Outlet	Dew Point
(saturated)	Dew Point	Suppression
` 70°F	43°F	27°F
60°F	36°F	24°F
55°F	32°F	23°F
45°F	25°F	20°F



### 10BF/GasDry™ Max

Maximum Performance For Drying Compressed Air & Natural Gas

10BF®/GasDry™ Max is the primary desiccant choice for Natural Gas applications. 10BF/Gas Dry Max has the highest moisture absorbing capacity per pound of any other deliquescent desiccant while still achieving very low moisture content.

#### **FEATURES & BENEFITS**

- For operating temperatures 100°F and lower
- · Replaces TEG systems
- · Prevents air and gas line freeze-ups
- 45-63°F dewpoint suppression
- 13% Equilibrium RH

## **Physical Properites**

Color and form	White tablet
Size	1" diam x 3/4" height
Bulk density	60± 3 lbs/ft <sup>3</sup>
Crush Strength	100-120 lbs.

### **Dew Point Performance**

	Inlet Temperature	Outlet	Dew Point
	(saturated)	Dew Point	Suppression
A	100°F	37°F	63°F
	90°F	30°F	63°F
١	80°F	23°F	57°F
	70°F	16°F	54°F
	60°F	9°F	51°F
	50°F	2°F	48°F
Ü	40°F	-5°F	45°F

### **Applications:**

- Meets Pipeline Gas Moisture Specifications
- Fuel Gas & Biogas Dehydration
- Instrument Gas Dehydration
- Remote Outdoor Locations Without Electricity

Dense tablet, no dust. Deliquescent desiccants are environmentally safe and we guarantee performance!

## **4UF/GasDry™ Ultimate**

Ultimate Dewpoint Suppression



Natural gas or process gas dehydration at low pressures, low flow rates, and / or low temperatures can be very difficult. For these unique applications Gas Dry™ Ultimate/4UF was developed to meet low dew point requirements when other desiccants or glycols are ineffective.

#### FEATURES & BENEFITS

- 7 lbs H2O/MMSCF gas is attainable @ 50 psig & 60°F.
- 20 lbs H2O/MMSCF gas is attainable @ 25 psig & 80°F.
- Gas temperatures below freezing can be dried and still obtain a low equilibrium RH.
- 4% Equilibrium RH
- Can dry gas for a lower cost than glycol systems, in some applications.

### **Applications:**

- Meets Pipeline Gas Moisture Specifications
- Fuel Gas & Biogas Dehydration

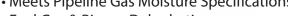
- Remote Outdoor Locations Without Electricity

### **Physical Properites**

Color and form	White bullet shaped tablet
Size	3/8" diam x 1/2" height
Bulk density	80-85 lbs./cu. ft.

### **Dew Point Performance**

Inlet Temperature	Outlet	Dew Point
(saturated)	Dew Point	Suppression
100°F	14°F	86°F
90°F	8°F	82°F
80°F	2°F	78°F
70°F	-4°F	74°F
60°F	-11°F	71°F
50°F	-17°F	67°F
40°F	-24°F	64°F
30°F	-31°F	61°F





- · Lowers moisture content of Biogas

Please contact Van Air Systems' **Technical Applications** Department to determine the best desiccant for your application.



### How to use it?

Gas Dry™ Ultimate/4UF can be used by itself or in combination with other grades of deliquescent desiccant, such as Gas Dry™ Peak/SP or Gas Dry™ Max/10BF Desiccant. Consumption is reduced when the process gas flows through the lower grade desiccant prior to the highly absorbent Gas Dry Ultimate/4UF, resulting in lower operating cost.