

## Adsorbent Desiccant

**Van Air Systems is the leading source of desiccants used for drying compressed air and gas.**

Adsorbent desiccant from Van Air Systems is used for point-of-use drying applications as well as for regenerative drying applications.

**Activated Alumina** is a porous form of aluminum oxide. It has a high surface area which adsorbs vapors without any change in form.

**Silica Gel** is a bead consisting of 97-100% silica. Van Air offers a high quality color indicating blue translucent bead. Dew points of  $-40^{\circ}\text{F}$  and lower may be achieved with silica gel depending on dryer design and operating conditions.

**Molecular Sieve** is a sodium aluminosilicate. Van Air Systems offers molecular sieve with a 4 angstrom pore size (4A). It has a fixed pore size according to the material specified and 4 Angstrom is the most common. Molecular Sieve is normally used for special process applications.

**FEATURES**

High Moisture Retention

Ability to achieve  $-40^{\circ}\text{F}$  Dew Point

Uniform Bead Shape

Regenerative Drying



### BENEFITS OF THE ADSORBENT DESICCANT

Low Dew Point // Reliable

[vanairsystems.com](http://vanairsystems.com)

## Activated Alumina

### FEATURES & BENEFITS

- Low to zero dust discharge
- High adsorption capacity
- Low abrasion
- Resists slugs of liquid water
- High crush strength
- Ability to achieve -40°F and lower dew points

## Silica Gel

### FEATURES & BENEFITS

- High moisture retention capacity under dynamic conditions
- Ability to achieve -40°F and lower dew points
- Uniform bead shape
- Provides visual indication of desiccant condition, indicating colors (blue = dry; pink = wet)

## Molecular Sieve

### FEATURES & BENEFITS

- Uniform capacity
- Round bead
- High moisture retention
- Produces a -100°F dew point

*2-5 Year Service Life Capability*

### APPLICATIONS

- Regenerative Dryers
- Acid Removal
- Process Stream Purification
- Hydrocarbon Adsorption

*Consists Of 97-100% Silica*

### APPLICATIONS

- Industrial Compressed Air Systems
- Tool Preservation

*Effective In Special Process Applications*

### APPLICATIONS

- Petroleum Industry
- Gas Stream Purification
- Chem Labs
- Liquid Natural Gas Plants

## Physical Properties

ACTIVATED ALUMINA				
	Color & Form	Bulk Density	Crush Strength	Surface Area
1/8" (2-5mm)	White bead	48lbs/ft <sup>3</sup>	17-30 lbs	1.74 x 10 <sup>6</sup> sq ft/lb.
3/16" (4-8mm)	White bead	48 lbs/ft <sup>3</sup>	45-60 lbs	1.65 x 10 <sup>6</sup> sq ft/lb
1/4" (5-10mm)	White bead	48 lbs/ft <sup>3</sup>	50-70 lbs	1.59 x 10 <sup>6</sup> sq ft/lb

  

SILICA GEL				
	Color & Form	Bulk Density	Crush Strength	Surface Area
1/8" (2-5mm)	Blue to Pink	45 lbs/ft <sup>3</sup>	N/A	1/8" (3-5mm)

  

MOLECULAR SIEVE				
	Color & Form	Bulk Density	Crush Strength	Surface Area
1/8" (2-5mm)	Off white/tan bead	40 lbs/ft <sup>3</sup> (+/- 10%)	100-120 lbs	3.67x 10 <sup>6</sup> sq ft/lb

2950 Mechanic Street, Lake City, PA 16423, USA | Toll Free Phone 800-840-9906 | Corporate Fax 814-774-0778 | Order Entry Fax 814-774-3482

Distributed By:



# Adsorbent Desiccant MSDS Downloads

## Material Safety Data Sheets

### Activated Alumina

VAN AIR SYSTEMS					
<b>Material Safety Data Sheet</b>					
<p><b>Product Name:</b> Activated Alumina  <b>Product Number:</b> 11-378-100  <b>Product Description:</b> Activated Alumina</p>					
<p><b>Section 2: Hazard Identification</b></p> <p><b>Hazard Statement:</b> H302, H312, H332  <b>Pictogram:</b> </p>					
<p><b>Section 3: Composition/Information on Ingredients</b></p> <table border="1"> <thead> <tr> <th>Ingredient Name</th> <th>Concentration</th> </tr> </thead> <tbody> <tr> <td>Activated Alumina</td> <td>100%</td> </tr> </tbody> </table>		Ingredient Name	Concentration	Activated Alumina	100%
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<p><b>Section 4: First Aid Measures</b></p> <p><b>Eye Contact:</b> Flush with water for at least 15 minutes. Remove contact lenses if present and continue flushing.</p> <p><b>Inhalation:</b> Move to fresh air. If breathing is difficult, seek medical attention.</p> <p><b>Swallowing:</b> Do not induce vomiting. Rinse mouth with water.</p> <p><b>Skin Contact:</b> Wash with soap and water.</p>					
<p><b>Section 5: Fire Fighting Measures</b></p> <p><b>Flammability:</b> Not flammable.</p> <p><b>Extinguishing Media:</b> Water spray, carbon dioxide, dry powder.</p>					
<p><b>Section 6: Accidental Release Measures</b></p> <p><b>Spill/Leak Response:</b> Contain and clean up immediately. Avoid dust.</p>					
<p><b>Section 7: Handling and Storage</b></p> <p><b>Handling:</b> Use in well-ventilated areas. Avoid dust.</p> <p><b>Storage:</b> Store in a dry, well-ventilated area.</p>					
<p><b>Section 8: Exposure Controls/Personal Protection</b></p> <p><b>Respiratory Protection:</b> Not required.</p> <p><b>Eye Protection:</b> Safety glasses.</p> <p><b>Hand Protection:</b> Nitrile gloves.</p>					
<p><b>Section 9: Physical and Chemical Properties</b></p> <p><b>Appearance:</b> White, granular powder.</p> <p><b>Odor:</b> Odorless.</p> <p><b>Boiling Point:</b> 2000°C (3632°F)</p> <p><b>Melting Point:</b> 2000°C (3632°F)</p> <p><b>Density:</b> 3.8 g/cm³</p>					
<p><b>Section 10: Stability and Reactivity</b></p> <p><b>Stability:</b> Stable under normal conditions.</p> <p><b>Reactivity:</b> Reacts with strong acids and bases.</p>					
<p><b>Section 11: Toxicological Information</b></p> <p><b>Acute Toxicity:</b> LD50 (oral, rat) &gt; 2000 mg/kg.</p> <p><b>Chronic Toxicity:</b> No chronic toxicity data available.</p>					
<p><b>Section 12: Ecological Information</b></p> <p><b>Biodegradability:</b> Not applicable.</p> <p><b>Biodegradation:</b> Not applicable.</p>					
<p><b>Section 13: Disposal Considerations</b></p> <p><b>Disposal:</b> Dispose in accordance with local, state, and federal regulations.</p>					
<p><b>Section 14: Transport Information</b></p> <p><b>UN Number:</b> 1502</p> <p><b>Proper Shipping Name:</b> Activated Alumina</p> <p><b>Hazard Class:</b> 6.03</p>					
<p><b>Section 15: Regulatory Information</b></p> <p><b>OSHA HCS:</b> 29 CFR 1910.1200</p> <p><b>OSHA PEL:</b> 10 mg/m³ (TWA)</p>					
<p><b>Section 16: Other Information</b></p> <p><b>Prepared by:</b> Van Air Systems</p> <p><b>Revision:</b> 1.0</p>					

### Molecular Sieve

VAN AIR SYSTEMS					
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