

## PRODUCT DATA SHEET

### Valu-Fil 650 - Solution Grade Gypsum

Solution Grade Gypsum is a white, high purity, finely ground calcium sulfate dihydrate which is used to improve soils in turf grass and agricultural applications. At certain concentration levels, this solution grade soil amendment is readily dissolved in water and is usually delivered through an existing irrigation system to condition calcium deficient soils for enhanced turf grass development.

#### Typical Chemical Analysis

Calcium Sulfate Dihydrate	94.5%
Calcium	22%
Sulfur	17.6%

#### Typical Physical Properties

Appearance	White Powder
Specific Gravity	2.32
Bulk Density	69 lb./ft <sup>3</sup>
Moh Hardness	2.0
pH	7.5
Rate of Dissolution	
30 seconds	97.4%
60 seconds	100%

#### Typical Particle Size Distribution

Particles passing ASTM Sieves	
50 Mesh	100%
100 Mesh	97%
200 mesh	84%
325 Mesh	65%

#### Advantages

- **Flame Retardant** – Valu Fil 650 contains chemically combined water which acts as a flame retardant in resin systems. It has been used successfully to pass the UL E-84 and UL – E-162 flame and smoke tests.
- **Economical** – Valu Fil 650 low product cost and its ability to be filled at high volumetric concentrations reduces the amount of resin used, lowering the cost of the resin system.
- **Compatibility** – Valu Fil 650 is compatible with a wide variety of the resin systems currently in use from a variety of manufacturers. Used successfully at load ratios in excess of 50%.
- **Fluidity/Suspension-** The particle size distribution of Valu-Fil 650 has been optimized to provide excellent viscosity and suspension properties in resin systems improving mixing and processing operations.



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### Valu-Fil 650 - Solution Grade Gypsum

#### **Packaging Options**

Valu-Fil 650 is packaged in industry standard 50 lb. net weight bags, palletized and stretch wrapped on 3000 lb. pallets. It is also available in Super Sacks and in bulk.

#### **Transportation Logistics**

ACG Materials has the ability to provide full traffic and distribution services to coordinate logistical activities involving product delivery in accordance with customer requirements which include FOB and delivered price billing.

#### **Product Quality**

ACG Materials is vertically integrated in order to be in complete control of all materials and processes responsible for the production of our products. To be sure consistency is maintained, we continuously sample and analyze Valu-Fil 650 for purity, moisture, particle size, and overall quality. A certificate of analysis is available upon request for each lot produced.

# SAFETY DATA SHEET

## Section 1. Product Identification

<b>Product identifier</b>	Valu- Fil
<b>Other means of identification</b>	
<b>SDS number</b>	ACG 2005
<b>Additional Products</b>	Valu-Fil Series, Ground Rock, Ground Gypsum, Coarse Grind, Line Drive, Animal Feed, Turfgrass, and Agricultural Gypsum
<b>Synonyms</b>	Calcium Sulfate Dihydrate
<b>Recommended use</b>	Filler.
<b>Recommended Restrictions</b>	Use in accordance with manufacturer's recommendations.
<b>Manufacturer/Importer/Supplier/Distributor information</b>	
<b>Company name</b>	ACG Materials
<b>Address</b>	1550 Double Drive Norman, OK 73069
<b>Telephone</b>	1-800-624-5963
<b>Website</b>	www.ACGmaterials.com
<b>Emergency phone number</b>	1-800-624-5963

## Section 2. Hazard(s) Identification

<b>Emergency Overview</b>	This product is not flammable, combustible, or explosive. It does not cause burns or severe skin or eye irritation. A single exposure will not result in serious adverse health effect. Prolonged contact with the product may result in abrasions to the skin or irritation of the eyes. Prolonged inhalation of the dust may irritate the respiratory tract.
<b>Physical hazards</b>	Not classified
<b>Health Hazards</b>	Not classified
<b>Acute:</b>	
<b>Eyes</b>	Contact can cause mechanical irritation of eyes. If burning, redness, itching, pain or other symptoms persist or develop, consult physician. Eye irritation Category 2, subcategory 2B.
<b>Skin</b>	Prolonged contact with the skin may cause irritation. Rubbing of this product against the skin can result in abrasion. Rinse with water until free of material to avoid abrasion, then wash skin thoroughly with mild soap and water. May dry skin. Mild skin irritation Category B.
<b>Inhalation</b>	Inhalation of dusts from this product may irritate the nose, throat, lungs, and upper respiratory tract. Persons exposed to large amounts of this dust may be forced to leave area because of nuisance conditions such as coughing, sneezing, and nasal irritation. Labored breathing may occur after excessive inhalation. If respiratory symptoms persist, consult physician.
<b>Chronic:</b>	
<b>Inhalation</b>	Prolonged and repeated exposure to respirable crystalline silica can result in lung disease (i.e. silicosis) and lung cancer. Silicosis increases the risk of tuberculosis. Studies have shown various autoimmune and chronic kidney diseases in workers exposed to respirable crystalline silica. Some studies show and increased incidence of chronic bronchitis and emphysema in workers exposed to crystalline silica.
<b>Environmental hazards</b>	Not Classified
<b>OSHA defined hazards</b>	Not Classified

**Label elements**


<b>Signal word</b>	Danger
<b>Hazard statement</b>	Causes eye and skin irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
<b>Precautionary statement</b>	
<b>Prevention</b>	Wash hands thoroughly after handling. Wear protective gloves. Avoid breathing dust. Wear respiratory protection.

**Response**

If eye irritation persists, if skin irritation occurs, or if experiencing respiratory symptoms: Get medical advice/attention.

**Storage**

Store as indicated in Section 7.

**Disposal**

Dispose of in accordance with local, state, and federal regulations.

**Hazard(s) not otherwise classified (HNOC)**

None known.

**Section 3. Composition/Information on Ingredients**
**Mixtures**

Chemical name	CAS number	%
Calcium sulfate dihydrate (alternative CAS 10101-41-4)	13397-24-5	>95
Calcium Sulfate Anhydrite	14798-04-0	<10
Silicon Dioxide (Crystalline Silica)	14808-60-7	<0.025

**Composition comments**

All concentrations are in percent by weight unless ingredient is a gas.

**Section 4. First-Aid Measures**
**Eye contact**

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Skin contact**

If on skin: Wash with plenty of water/mild soap and water. Specific treatment: see supplemental first aid instruction on label. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

**Inhalation**

If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a doctor.

**Ingestion**

Unlikely to occur, but may cause gastric disturbances if swallowed. Gypsum is non-toxic

**Most Important symptoms/effects, acute and delayed**

Under normal conditions of intended use, this product is not expected to be a health risk. Dust may irritate throat and respiratory system and cause coughing.

**Indication of Immediate medical attention and special treatment needed**

Provide general supportive measures and treat symptomatically.

**General information**

Ensure that medical personnel are aware of the material(s) involved.

**Section 5. Fire and Explosion Hazard Data**
**Flash Point**

Non-combustible

**Auto-Ignition**

Not applicable.

**Flammable limit**

Not applicable.

**Fire Extinguishing Media**

Use extinguishing media appropriate for surrounding fire.

**Special Fire-fighting Procedures**

Wear proper personal protective equipment as listed in Section 8.

**Hazardous combustion procedures**

Not applicable.

**Explosion Hazards**

None known.

**Section 6. Accidental Release Measures**
**Methods and materials for containment and cleaning up**

Remove by dry sweeping or vacuum. Avoid creating excessive dust. It is recommended that gloves and a mask be worn while cleaning the spill. If already mixed with water, scrape up and place in container. Wear appropriate protective equipment as described in Sections 7 & 8.

**Environmental precautions**

Avoid discharge to drains, sewers, and other water systems.

**Section 7. Handling and Storage**
**Precautions for safe handling**

Avoid contact with skin and eyes. Do not breathe dust. Use only in well ventilated areas. Wear appropriate eye and respiratory protection, including a NIOSH approved dust mask, if dust is generated. When using, do not eat or drink. Wash hands before eating, drinking or smoking.

**Conditions for safe storage, including incompatibilities**

Keep out of reach of children. Keep the container tightly closed and dry. Store in a covered, dry climate controlled area, away from incompatibles listed in Section 10.

### Section 8. Exposure Controls/Personal Protection

**Occupational exposure limits**
**US. OSHA table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value	Form
Gypsum Anhydrite or Gypsum/Anhydrite Blend	PEL	5 mg/m <sup>3</sup>	Respirable.
Crystalline Silica	TWA	5 mg/m <sup>3</sup>	Respirable.

**US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Gypsum Anhydrite or Gypsum/Anhydrite Blend	TWA	10 mg/m <sup>3</sup>	Inhalable fraction.
Crystalline Silica	TWA	0.025 mg/m <sup>3</sup>	Respirable.

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value	Form
Gypsum Anhydrite or Gypsum/Anhydrite Blend	TWA	5 mg/m <sup>3</sup>	Respirable
Crystalline Silica	TWA	0.05 mg/m <sup>3</sup>	Respirable

**Engineering Controls**

Ventilate to keep exposures below TLV requirements of the individual ingredients. General ventilation is expected to be satisfactory. Use local exhaust ventilation if necessary to control dust.

**Respiratory protection**

None required where adequate ventilation conditions exist. In order to meet TLV requirements of individual ingredients and to control dusting conditions, provide general ventilation and local exhaust ventilation. Avoid creating dust. Wear a NIOSH/MSHA approved dust respirator in poorly ventilated areas and/or if TLV requirements of the individual ingredients is exceeded.

### Section 9. Physical and Chemical Properties

<b>Appearance</b>	White.
<b>Physical state</b>	Powder/Solid.
<b>Melting Point</b>	Not applicable.
<b>Freezing Point</b>	Not applicable.
<b>Odor</b>	Low to no odor.
<b>Odor threshold</b>	Not determined.
<b>Flash point</b>	Non-combustible.
<b>Flammability limits</b>	Not applicable.
<b>Solubility (in water) (g/100g)</b>	0.205.
<b>Initial boiling point</b>	Not applicable
<b>Boiling Range</b>	Not applicable.
<b>Specific gravity</b>	2.32-2.41.
<b>pH</b>	6-8.
<b>Vapor pressure</b>	Not applicable.
<b>Vapor density</b>	Not applicable.
<b>Auto-ignition temperature</b>	None.
<b>Evaporation rate</b>	Not applicable.
<b>Viscosity</b>	Not applicable.
<b>Upper flammability limit</b>	Not determined.
<b>Lower flammability limit</b>	Not determined.
<b>Decomposition temp</b>	1450°C / 2642°F

### Section 10. Chemical Stability and Reactivity

<b>Conditions of reactivity</b>	Not applicable.
<b>Chemical stability</b>	Stable at normal storage conditions and temperature.
<b>Conditions to avoid</b>	Not applicable.
<b>Hazardous decomposition products</b>	Stable at normal storage conditions and temperature.
<b>Hazardous polymerization</b>	None known.

### Section 11. Toxicological Information

<b>Information on likely routes of exposure</b>	
<b>Acute effects</b>	The acute oral toxicity study (OECD TG 420) of calcium sulfate dihydrate showed that this chemical did not cause any changes.
<b>Chronic effects</b>	Crystalline silica: Exposures to respirable crystalline silica are not expected during the normal use of this product; however, levels must be determined by in-house workplace hygiene testing.

### Section 12. Ecological Information

<b>Ecotoxicity</b>	There are no known causes from this product that would harm the ecology. The disposal of large quantities directly into waterways would be expected to cause significant aquatic life death.
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### Section 13 Disposal Considerations

<b>Disposal procedure</b>	Dispose of product and packaging material in accordance with all applicable federal, state, and local regulation. Can be disposed as an inert solid in a landfill. Slurry may plug drains. Do not dispose of directly in waterways or sewers. Recycle responsibly.
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### Section 14. Transport Information

<b>Department of Transportation (DOT) Requirements</b>	This product is not regulated as a hazardous material by the United States (DOT) transportation regulations.
<b>Canadian Transportation of dangerous goods</b>	Not regulated as dangerous goods.
<b>UN#</b>	None, Not regulated as dangerous goods.
<b>ADNR</b>	None.
<b>RID/ADR:</b>	Not classified.
<b>Environmental hazards</b>	None.
<b>Annex II of MARPOL 73/78</b>	Not applicable
<b>International bulk chemical code</b>	Not applicable

### Section 15 Regulatory Information

<b>U.S. EPA's Toxic Substance Control Act Chemical Substance Inventory</b>	Not listed as reportable quantity or regulated quantity in SARA Title III Sections 302, 304, and 313. CAA Section 112® Regulated Chemicals for Accidental Release Prevention, CERLA Hazardous Substances, and RCRA Hazardous Waste.
<b>Canadian Controlled Product Regulations</b>	Crystalline Silica: IDL* Item #1406 Classification: D2A.
<b>European Union Directive</b>	R36, R37, R38, S37, S3, S39, and S51.

\*IDL Item: Canadian Hazardous Product Act Ingredient Disclosure List

\*\* WHMIS: Workplace Hazardous Safety Information System

**Section 16 Other Information**

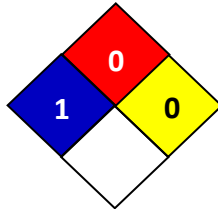
**16. Other Information, including date of preparation or last revision**

Issue date 01-June 2015  
Version # 03

**Further information** NFPA Ratings  
Health: 1  
Flammability: 0  
Physical hazard: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

NFPA ratings



**Disclaimer** This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.