

**Trade Name: ADVERA® 401 Aluminosilicate****Date Prepared: 02/23/06****Page: 1 of 5****1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

*Product name:* ADVERA® 401 Aluminosilicate  
*Product description:* Hydrated zeolite sodium A powder  
*Manufacturer:* PQ Corporation  
P. O. Box 840  
Valley Forge, PA 19482 USA  
*Telephone:* 610-651-4200  
*In case of emergency call:* 610-651-4200  
*For transportation emergency*  
*Call CHEMTREC:* 800-424-9300

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

<i>Chemical and Common Name</i>	<i>CAS Registry Number</i>	<i>Wt. %</i>	<i>OSHA PEL</i>	<i>ACGIH TLV</i>
<b>Zeolite</b>	<b>1318-02-1</b>	<b>78-82%</b>	<b>15mg/m<sup>3</sup> total dust 5mg/m<sup>3</sup> respirable (Particulates Not Otherwise Regulated)</b>	<b>10 mg/m<sup>3</sup> 3 mg/m<sup>3</sup> respirable</b>
<b>Water</b>	<b>7732-18-5</b>	<b>18-22%</b>	<b>Not established</b>	<b>Not established</b>

**3. HAZARDS IDENTIFICATION**

*Emergency Overview:* **White, odorless, powder. May cause respiratory irritation. May cause irritation to the eyes and skin. Noncombustible.**

*Eye contact:* **Causes mild irritation to the eyes.**

*Skin contact:* **May cause irritation to the skin.**

*Inhalation:* **May cause respiratory irritation.**

*Ingestion:* **No known hazards. Inedible.**

*Chronic hazards:* **No known hazards.**

*Physical hazards:* **No known hazards.**

*Eye:* **In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation persists.**

*Skin:* **In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if irritation develops and persists. Wash clothing before reuse. Thoroughly clean shoes before reuse.**

*Inhalation:* **Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.**

*Ingestion:* **Not applicable.**

## **5. FIRE FIGHTING MEASURES**

<i>Flammable limits:</i>	<b>This material is noncombustible.</b>
<i>Extinguishing Media:</i>	<b>This material is compatible with all extinguishing media.</b>
<i>Hazards to fire-fighters:</i>	<b>See Section 3 for information on hazards when this material is present in the area of a fire.</b>
<i>Fire-fighting equipment:</i>	<b>The following protective equipment for fire fighters is recommended when this material is present in the area of a fire: chemical goggles, body-covering protective clothing, chemical resistant gloves, and rubber boots.</b>

---

## **6. ACCIDENTAL RELEASE MEASURES**

<i>Personal protection:</i>	<b>Wear safety goggles, body-covering protective clothing, chemical resistant gloves, and rubber boots, NIOSH-approved dust respirator where dust occurs. See section 8.</b>
<i>Environmental Hazards:</i>	<b>Sinks in water. No know environmental hazards.</b>
<i>Small spill cleanup:</i>	<b>Carefully shovel or sweep up spilled material and place in suitable container. Avoid generating dust. Use appropriate Personal Protective Equipment (PPE). See section 8.</b>
<i>Large spill cleanup:</i>	<b>Keep unnecessary people away; isolate hazard area and deny entry. Do not touch or walk through spilled material. Carefully shovel or sweep up spilled material and place in suitable container. Avoid generating dust. Use appropriate Personal Protective Equipment (PPE). See section 8.</b>
<i>CERCLA RQ:</i>	<b>There is no CERCLA Reportable Quantity for this material. If a spill goes off site, notification of state and local authorities is recommended.</b>

---

## **7. HANDLING AND STORAGE**

<i>Handling:</i>	<b>Avoid contact with eyes, skin and clothing. Avoid breathing dust. Keep container closed. Promptly clean up spills. Wash thoroughly after handling.</b>
<i>Storage:</i>	<b>Keep containers closed. Store in original containers or clean metal, plastic, or fiber containers.</b>

---

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

<i>Engineering controls:</i>	<b>Use with adequate ventilation. Safety shower and eyewash fountain should be within direct access.</b>
<i>Respiratory protection:</i>	<b>Use a NIOSH-approved dust respirator where dust occurs. Observe OSHA regulations for respirator use (29 C.F.R. §1910.134)</b>
<i>Skin protection:</i>	<b>Wear body-covering protective clothing and gloves.</b>
<i>Eye protection:</i>	<b>Wear safety goggles.</b>

---

---

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

*Appearance:* Powder.  
*Color:* White.  
*Odor:* Odorless.  
*pH:* (Water dispersions) 10.1-11.4  
*Bulk density:* Approximately 25-30 lbs/ft<sup>3</sup>.  
*Solubility in water:* Insoluble.

---

## **10. STABILITY AND REACTIVITY**

*Stability:* Stable.  
*Conditions to avoid:* None.  
*Materials to avoid:* Hydrides and other water-reactive compounds, strong acids, strong alkalis.  
*Hazardous decomposition products:* None.

---

## **11. TOXICOLOGICAL INFORMATION**

*Acute Data:* When tested for primary eye irritation potential, hydrated sodium zeolite A was nonirritating or caused mild or slight irritation which subsided within 48 hours. When tested for primary skin irritation potential, hydrated sodium zeolite A was nonirritating or caused mild irritation. This material is acutely nontoxic by ingestion. When tested for respiratory irritation potential, hydrated sodium zeolite A caused no effects or irritation similar to calcium carbonate and less than silica.

*Subchronic Data:* In a study of rats fed hydrated zeolite A for 168 or 200 days at 0.125% and 2% of the diet adverse effects were reported in the urinary bladder and kidneys similar to those reported for other silicates ingested at high levels.

*Special Studies:* In a study of rats fed hydrated zeolite A for 104 weeks at dosages as high as 0.1% of the diet caused adverse effects to the kidneys, but no treatment associated carcinogenic effect. No carcinogenic or fibrogenic effects were observed in rats exposed by inhalation to approximately 20 mg/m<sup>3</sup> hydrated zeolite A for 5 hrs/day, 3 days/week for 22 months. Hydrated sodium zeolite A is not listed by IARC, NTP or OSHA as a carcinogen.

---

## **12. ECOLOGICAL INFORMATION**

*Eco toxicity:* Both acute and long term studies of sodium zeolite A on freshwater microcrustacean, *Daphnia magna*, and the freshwater fish, *Idus idus melantos*, showed no significant effects on survival or reproduction. 96 hour lethality tests with Sodium Zeolite A on the freshwater species, *Lepomis macrochirus*, *Ictalurus punctatus*, and *Pimephales promelas*, also did not reveal any effects with concentrations of Sodium Zeolite of up to 680 mg/L. Similar results were obtained for the marine species *Crassostrea virginica*, *Penaeus duorarum*, and *Lagodon rhomboides* at concentrations of Sodium Zeolite A of up to 780 mg/L. A 30-day test with

fathead minnows showed no significant effects of suspended Sodium Zeolite A on hatchability, survival, or growth at the highest concentration tested, 87 mg/L. Long term pond studies also failed to show any deleterious effects of sodium zeolite A on zooplankton, macroinvertebrae, or fish populations, when ponds were treated either with 80-200 mg/L sodium Zeolite A under static conditions, or with a continuous input of 15 mg/L

*Environmental Fate:* Sodium zeolite A is thermodynamically unstable. In aqueous suspensions, Sodium zeolite A will transform to amorphous sodium aluminosilicate in minutes to hours at natural environmental pH. Because sodium zeolite A rapidly hydrolyzes under environmental conditions it cannot bioaccumulate.

*Physical/Chemical:* Sinks in water. Only water will evaporate from this material.

---

### **13. DISPOSAL CONSIDERATIONS**

*Classification:* This material is not RCRA Hazardous waste.  
*Disposal Method:* Dispose in accordance with federal, state and local regulations.

---

### **14. TRANSPORT INFORMATION**

*DOT UN Status:* This material is not regulated hazardous material for transportation.

---

### **15. REGULATORY INFORMATION**

*CERCLA:* No CERCLA Reportable Quantity has been established for this material.  
*SARA TITLE III:* Not an Extremely Hazardous Substance under §302. Not a Toxic Chemical under §313. Hazard Categories under §§311/312: Acute

*TSCA:* All ingredients of this material are listed on the TSCA inventory.  
*FIFRA:* Sodium zeolite A and exempt from the requirement of a tolerance when used in accordance with good agricultural practice as an inert (or occasionally active) ingredient in pesticide formulations applied to growing crops or to raw agricultural commodities after harvest when used as a solid diluent, carrier pursuant to 40 C.F.R. §180.1001.

*FDA:* The use of ADVERA sodium zeolite A is authorized by FDA as a costabilizer for polyvinyl chloride plastics intended for single and repeated use in contact with food, at levels not to exceed 5% by weight of the finished food contact article pursuant to FCN 000134; and as a for use as a pigment extender at levels not to exceed 5.4 per-cent by weight of the finished paper and paperboard pursuant to 21 CFR §176.170.

---

---

Trade Name: **ADVERA® 401 Aluminosilicate**  
Date Prepared: **02/23/06**

Page: 5 of 5

---

**16. OTHER INFORMATION**

Prepared by: **John G. Blumberg**  
Supersedes revision of: **05/1705**

**THE INFORMATION ON THIS SAFETY DATA SHEET IS BELIEVED TO BE ACCURATE AND IT IS THE BEST INFORMATION AVAILABLE TO PQ CORPORATION THIS DOCUMENT IS INTENDED ONLY AS A GUIDE TO THE APPROPRIATE PRECAUTIONS FOR HANDLING A CHEMICAL BY A PERSON TRAINED IN CHEMICAL HANDLING. PQ CORPORATION MAKES NO WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED WITH RESPECT TO SUCH INFORMATION OR THE PRODUCT TO WHICH IT RELATES, AND WE ASSUME NO LIABILITY RESULTING FROM THE USE OR HANDLING OF THE PRODUCT TO WHICH THIS SAFETY DATA SHEET RELATES. USERS AND HANDLERS OF THIS PRODUCT SHOULD MAKE THEIR OWN INVESTIGATIONS TO DETERMINE THE SUITABILITY OF THE INFORMATION PROVIDED HEREIN FOR THEIR OWN PURPOSES.**

---