



Quik-Solid® is a solid, granular cross-linked polyacrylate Advanced Superabsorbent Polymer that rapidly absorbs and retains large volumes of aqueous solutions. The absorptive properties of Quik-Solid® are ideally suited for the absorption and solidification of radioactive and other types of waste waters.

Product features:

- ◆ Reduces Waste Disposal Costs – expands in volume by less than 1%
- ◆ Non-Biodegradable Polymer (per 40 CFR 264.314 (e)(ii)).
- ◆ Freeze-Thaw Tested: Quik-Solid® will not release liquids after freezing and subsequent heating to 160° F
- ◆ Not release trapped Ionic contaminants if solute evaporation occurs.
- ◆ Passes Paint Filter Test (EPA 9095).
- ◆ Approved for use at Hanford and other licensed facilities
- ◆ SEG Certified Incinerable Material with a heat value of 5560 BTU/lbs.
- ◆ Strong Ion exchange capability allows for heavy metals to be bound and wastes to pass TCLP.

Typical Absorptive Properties:

Free Swell in D.I. Water	250-350 X
In 1% AlCl ₃	22-26 X
Free Swell in 1% NaCl	43-52 X
In 6N NaOH	23-29 X
Free Swell in 2% NaCl	34-41 X
In 8N NaOH	22-28 X
Free Swell in 10% NaCl	19-23 X
In 6N NaOH + 2% NaCl	22-28 X
Free Swell in 1% CaCl ₂	20-24 X
In 10% Bleach + 1% NaCl	39-47 X

Radiation Testing on Dry Polymer:

Cobalt ⁶⁰ Rad Testing	Absorbency In Deionized Water	Absorbency in 0.9% NaCl	Gel Volume in 0.9% NaCl
0 megarads	250-300 X	50-60 X	33-41 X
5 megarads	120-140 X	34-42 X	n.d.
25 megarads	78-92 X	28-34 X	15-19 X
50 megarads	68-83 X	27-33 X	15-19 X
100 megarads	n.d.	n.d.	14-18 X
150 megarads	n.d.	n.d.	12-16 X

Liquid Release Test (EPA 9096)

(Deionized Water Retention After 10 Minutes)
 Passes with 25 x weight at 20 psi
 Passes with 15 x weight at 50 psi

Quik-Solid® Absorbent Sheets are a higher performing, yet lower cost alternative to other absorbent fabric products that are used in the hazardous waste or nuclear waste disposal industry.

Quik-Solid® Absorbent Sheets are made with polyester fabric layers bonded together with a special polyolefin adhesive. The **Quik-Solid®** granular absorbent polymer is imbedded between the layers of fabric and the entire laminate structure is made of non-biodegradable materials.

Product features:

- ◆ **Quik-Solid® Absorbent Sheets** absorb and retain up to 145 times their own weight in aqueous liquids.
- ◆ **Quik-Solid® Absorbent Sheets** are about 1/3 the thickness of conventional absorbent fabrics that are used in the nuclear remediation industry (0.04 cm vs. 0.11 cm). They take up less volume in a container and yet still deliver superior absorbency. SAVES SHIPPING & DISPOSAL COSTS!!!!
- ◆ Freeze-Thaw Tested: **Quik-Solid®** will not release liquids after freezing and subsequent heating to 160° F
- ◆ All materials are non-biodegradable.
- ◆ **Quik-Solid® Absorbent Sheets** absorb and retain large volumes of condensate and free aqueous liquids in radwaste and hazardous waste containers. Helps to retard the corrosion of metal containers.
- ◆ **Quik-Solid®** Granular absorbent polymer is approved for use at several DOD and DOE facilities.
- ◆ **Quik-Solid® Absorbent Sheets** are available in Rolls (4' x 500'), B-25 Pads (46"x72") & Drum Lid Pads (22" diameter).

MATERIAL SAFETY DATA SHEET

Quik Solid®

Section 1: Manufacturer/Supplier Information

Exclusive Gov't Distributor:
The ARK Enterprises, Inc.
PO Box 725
Peculiar, MO 64078
816-779-5741

Section 2: Physical/Chemical Characteristics

Boiling Point - Not Applicable
Bulk Density (Apparent - g/cc) - 0.5-0.7
Vapor Pressure (mm Hg.) - Not Applicable
Melting point - Not Applicable
Vapor Density (AIR = 1) - Not Applicable
Evaporation Rate (Butyl Acetate = 1) - Not Applicable

Section 3: Hazardous Ingredients/Identity Information

Hazardous Components: OSHA PEL ACGIH TLV
Other Components:
Recommended Exposure Limit (dust) 0.05mg/m3
Guideline for Respirable Particulate

Product Identification

Chemical Name	CAS No.	%
Sodium Polyacrylate, lightly crosslinked	CAS#-076774-25-9	
Water	CAS#-7732-18-5	
Acrylic Acid	N/A CAS#-79-10-7	

NFPA/HMIS: Health-1 Reactivity-0 Fire-1 Specific Hazard-See 4
DOT Class: Not Regulated

Section 4: Fire & Explosion Hazard Data

Flash Point (Method Used): Not available
Flammable Limits: Not available LEL UEL
Extinguishing Media: As with any fire, wear positive pressure, self-contained breathing apparatus in any closed space when fighting fire.
Special Fire Fighting Procedures: Not applicable
Unusual Fire and Explosion Hazards: Becomes slippery when wet. Under certain confined conditions, a fine dust of this material in air may cause a dust explosion if ignited.

Section 5: Reactivity Data

Stability: Stable
Incompatibility: Strong Oxidizers
Hazardous Polymerization: Will not occur
Conditions to Avoid: None known
Hazardous Decomposition or Byproducts:
Thermal decomposition releases CO, CO₂, Hydrocarbons

Section 6: Health Hazard Data (applies to unused product)

Route (s) of Entry: Inhalation, ingestion, open wounds, eyes.
Health Hazards: Contact with eyes, skin or clothing may cause irritation. Care must be taken to minimize exposure and prevent workplace inhalation of respirable dust. Respiratory protection is required for exposures above the recommended level of respirable dust. A similar product, ground very finely, produced an inflammatory tissue response in the lungs in a lifetime exposure inhalation experiment with animals. According to the EPA "Hazard Categories" under sections 311 and 312 of SARA Title III, this product is considered to meet the applicable definitions of: A delayed health hazard.

Carcinogenicity: None known

IARC Monographs: No

OSHA Regulated: No

Signs/Symptoms of Exposure: Slight irritant effects

Medical Conditions Aggravated by Exposure: None known.

Emergency and First Aid Procedures:

Eyes: Flush with large quantity of water, consult physician.

Skin: Wash with soap and water.

Inhalation: Remove to fresh air, consult physician.

Section 7: Control Measures

Respiratory Protection: Use NIOSH or MSHA with high efficiency filter for particulate levels above 0.05mg/m3.

Ventilation: Local Exhaust – as appropriate
Mechanical (General) - as appropriate
Special/Other – none

Protective Gloves: Impervious/rubber

Eye Protection: Safety goggles as recommended

Other Protective Clothing or Equipment: If needed.

Work Hygienic Practices: Use good housekeeping practices.

Section 8: Precautions for Safe Handling & Use

Steps to be taken in case material is released or spilled: Vacuum (using HEPA filter equipped system) if possible to avoid generating airborne dust. Avoid breathing dust. Wear an approved respirator. Exercise caution when adding water, product will become slippery when wet.

Waste Disposal Method: Dispose of in accordance with federal, state and local regulations.

Precautions to be taken in handling & storing: Store in a cool, dry place. Avoid breathing powder. Avoid skin and eye contact.

Other Precautions: Protective eye wear should be worn where dust levels are high enough to cause irritation. Slippery when wet.

Section 9: Prepared 10/1/98

Section 10: Supplemental Information

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