



## Rehydragel<sup>®</sup> Adjuvants PRODUCT PROFILE

### CHARACTERISTICS

Rehydragel<sup>®</sup> adsorbent aluminum hydroxide gels have been used for many years as adjuvants in veterinary vaccines, and are growing in importance in the human biological field. These highly purified aluminum hydroxide gels provide high protein adsorption when used as matrices or carriers for veterinary antitoxins. Rehydragel adjuvants are based on crystalline aluminum oxyhydroxide, known mineralogically as boehmite.

They are highly effective in vaccines when there is a need to bind negatively charged proteins. They have a positive charge at physiological pH (7.4) and a point of zero charge of 9 to 12. They are hydrated gels containing crystalline particles with a large surface area (about 525 m<sup>2</sup>/g). Their Al<sub>2</sub>O<sub>3</sub> content ranges from 2% to 10%. The Rehydragel line include products with high Al<sub>2</sub>O<sub>3</sub> concentration for economy, as well as highly specialized grades.

### TYPICAL PROPERTIES

Grade	CG	LV	HPA	HS
Sterility	Non Sterile	Sterile	Sterile	Sterile
Aluminum Oxide (Al <sub>2</sub> O <sub>3</sub> ), %	8.5 - 10.5	1.8 - 2.2	1.8 - 2.2	1.8 - 2.2
Protein Binding Capacity, mg BSA/mg Al <sub>2</sub> O <sub>3</sub>	1.0	1.5	2.5	0.9
Point of Zero Charge	10.5	11.6	12.1	9.4
Sodium (Na), % max	—	0.1	0.1	0.1
Chloride (Cl), % max	0.07*	0.3	0.3	0.3
Sulfate (SO <sub>4</sub> ), %	0.03*	—	—	—
Heavy metals (as Pb), ppm max	2.5*	—	—	—
Arsenic (As), ppm max	0.4*	—	—	—
Iron (Fe)	0.001% max	—	—	—
Viscosity	Gel-like	1000 cps max	Thrixotropic**	1300 cps max
pH	7.0 - 8.0	5.8 - 6.8	5.5 - 6.5	6.0 - 8.0
Microbial Limits	<100 colonies/g; no <i>E. Coli</i> , <i>S. Aureus</i> , or <i>P. Aeruginosa</i>	Sterile	Sterile	Sterile

\*In 2% Al<sub>2</sub>O<sub>3</sub> test suspension

\*\*Thrixotropic gel fluidized completely under shear, e.g., when shaken or mixed.

### PRODUCT MARKETS AND USES

- Bacterin vaccines for large animals
- Rabies vaccines for companion animals
- Poultry vaccines
- Human vaccines
- Blood separation applications
- Pharmaceutical gels for topical use

### BENEFITS

- Excellent binding of acidic proteins
- Customized Al<sub>2</sub>O<sub>3</sub> level, rheological properties, and point of zero charge

# Rehydragel<sup>®</sup> Adjuvants

## PRODUCT PROFILE

### GRADES & SHIPPING CONTAINERS

Rehydragel<sup>®</sup> adjuvants are available in a broad array of packaging types and sizes from 1/2-liter glass bottles to 250-lb drums, depending on the grade. Typical packaging types are as follows:

- **Rehydragel<sup>®</sup> CG** 250 lb. net drum  
50 lb. net drum
- **Rehydragel<sup>®</sup> LV** 55 lb. net carboy  
(7 gal. sterile only)  
500 mL. sterile glass container
- **Rehydragel<sup>®</sup> HPA** 55 lb. net carboy  
(7 gal. sterile only)  
500 mL. sterile glass container
- **Rehydragel<sup>®</sup> HS** 55 lb. net carboy  
(7 gal. sterile only)  
500 mL. sterile glass container

### SHIPPING LOCATION

- **Berkeley Heights, NJ**

### SHIPPING REGULATIONS

Not Regulated

### STORAGE AND HANDLING

Rehydragel<sup>®</sup> adjuvants should be stored at or below room temperature. They should never be allowed to freeze, because this destroys their lattice structure and unique adsorbent properties.

### SHELF LIFE

Although Rehydragel<sup>®</sup> adjuvants are exceptionally inert and can be stored indefinitely in their original containers, their stability and sterility should be reevaluated periodically. Timing for reevaluation varies from one year for Rehydragel<sup>®</sup> CG to two years for other General Chemical adjuvants from the date on the Certificate of Analysis.

### FEEDING METHODS

Rehydragel<sup>®</sup> adjuvants should be used with low-speed/low-shear pumps, e.g., self-priming diaphragm and peristaltic pumps.

### SATISFACTORY MATERIALS OF CONSTRUCTION

Material of construction should be corrosion- and abrasion-resistant and easily sanitized. Suitable materials include 316L stainless steel, polypropylene, polyethylene, fluoro-polymer, fluoroelastomer and neoprene.

### PRODUCT SAFETY INFORMATION

As with any chemical, Rehydragel<sup>®</sup> adjuvants require care in handling. Anyone responsible for the procurement, use or disposal of this product should familiarize himself and those handling the product with the appropriate safety and handling precautions. This information is available in the Material Safety Data Sheet, which may be obtained by contacting our Customer Service or Technical Service groups (see box below). In the event of an emergency with these products, call the 24 hour Emergency Number:

*US Only: (CHEMTREC) (800) 424-9300*

*Canada Only: (CANUTEC) (613) 996-6666*

### CORPORATE HEADQUARTERS

General Chemical  
90 East Halsey Road  
Parsippany, NJ 07054

### IN CANADA

Call Customer Service at  
(800) 631-8050 (English)  
(866) 543-3896 (French)



**CUSTOMER & TECHNICAL  
SERVICE**

**(800) 631-8050**

**WEBSITE**

**[www.GeneralChemical.com](http://www.GeneralChemical.com)**