

GEOwet HR, W and WL

Concentrated Wetting Agents

GEOwet Series

Product Bulletin

GEOwet HR and **GEOwet W** are highly concentrated alkylnaphthalene sulfonate powders. Unlike most anionic wetting agents, they are quite tolerable to adverse conditions which decompose other anionics or decrease the solubility of non-ionics. In addition to these easy-to-use powders, **GEOwet WL** liquid is available for use in liquid systems.

300 Brookside Avenue
Building #23, Suite 100
Ambler, PA 19002-3436 USA
Tel: +1 215 773 9280
Toll Free 888 519 3883
Fax: +1 215 773 9424

Please send email enquiries to:
scsales@geosc.com

www.geosc.com

	GEOwet HR	GEOwet W	GEOwet WL
Appearance	Powder	Powder	Liquid
Color	Off-white	Off-white	Dark amber
Activity, %	75.0	65.0	32.5
Moisture, %	3.5	4.0	60
Free oil, %	3.5	n/a	2.0
pH, 5% solution	9.0	9.0	9.0

Advantages

GEOwet wetting agents offer the following major advantages:

Stability: Their most outstanding feature is that they remain stable in solutions containing relatively high concentrations of electrolytes. Even in highly ionized or caustic solutions, GEOwet wetting agents are unaffected. In many cases, their performance is vastly improved in such solutions.

Thermal Stability: GEOwet wetting agents perform under extremes of temperature without product breakdown or loss of performance.

Low Foam: GEOwet HR and GEOwet W are unique among the more rapidly dissolving wetting agents in producing little foam at relatively high application levels.

Economy: Reduced raw material inventory. Frequently, one GEOwet wetting agent is suitable for all formulations. Smaller amounts are needed. Available in both powder and liquid forms for greater ease of handling.

Improves Quality of Finished Products: Lower foaming. Effective in both hard and soft waters. Effective for ground impregnated or agglomerated products.

Stability in Storage: Remains effective after years of storage in the original, unopened package. Dry formulated products wet out rapidly even after 12 months of shelf storage.

Solubility Characteristics

GEOwet HR and GEOwet W wetting agents are readily soluble in water and insoluble in carbon tetrachloride, isopropyl alcohol, kerosene and xylene.

Draves Wetting Test *

GEOwet	Wetting Time, sec			% Concentration for
	Concentration, wt %			25 sec Wetting
	1.0	0.50	0.25	
HR	2.5	32.5	117	0.55
W	4	6	31	0.30
WL	3	22	115	0.45

* 3 g hook, 25° C distilled water

This information is true and accurate to the best of our knowledge, but without any guarantee unless explicitly given. Typical properties should not be construed as specifications. Since the conditions of use are beyond our control we disclaim any liability, including for patent infringement, resulting from the use of these product, data or suggestions.

Surface Tension

GEOwet	Surface Tension at 25° C, dyne/cm		
	Concentration, wt %		
	1.0	0.50	0.25
HR	34.6	37.9	44.0
W	33.5	34.5	42.1
WL	33.6	39.2	48.9

Applications

Photographic / Graphic Arts

GEOwet WL works as a low foaming, anionic surfactant to wet plates in this process and is soluble in many hydrocarbon systems.

Industrial Metal Cleaners

Because heavy duty metal cleaning involves highly caustic solutions at high temperatures, the choice of a wetting agent for these formulations is limited. In numerous instances, **GEOwet** wetting agents have been successfully used. They provide a grease cutting action which enhances the caustic cleaning formulation.

Soaps and Detergents

GEOwet wetting agents are inexpensive, yet highly effective, additives to many soap and detergent formulations. Their use may increase heavy metal tolerance and reduce tendencies toward gel formation in the presence of inorganic salts. They are excellent for use in phosphate-free detergents.

Paint Strippers

Aqueous solutions of **GEOwet** wetting agents are excellent for solubilizing most organic solvents used in paint and lacquer strippers. Without adversely affecting stripping properties, **GEOwet** wetting agents reduce evaporation losses. In addition, the stripper adheres better to large objects and to vertical surfaces.

Concrete, Cementitious Grouts and Plaster Mixes

GEOwet wetting agents can be used in dry ready mix formulations where low water volumes are needed for high strength applications. The **GEOwet** will act to wet-out the dry particles thereby making best use of the available water.

This information is true and accurate to the best of our knowledge, but without any guarantee unless explicitly given. Typical properties should not be construed as specifications. Since the conditions of use are beyond our control we disclaim any liability, including for patent infringement, resulting from the use of these product, data or suggestions.

Agricultural Chemical Formulations

GEOwet HR and **GEOwet W** are excellent EPA-approved wetting agents for use in formulating flowable, dry flowable and wettable powder systems.

GEOwet HR and **GEOwet W** are compatible with all toxicants in present use including chlorinated hydrocarbon, phosphate and carbamate pesticides. When used with **Lomar®** dispersants, pesticide formulations of exceptional long term stability are common. Used alone, **GEOwet HR** and **GEOwet W** act as wetting and dispersing agents for sulfur, toxaphene and other pesticides.

Emulsion and Suspension Polymerization

GEOwet HR and **GEOwet W** wetting agents are used in emulsion and suspension polymerization to beneficially influence:

- ◆ Rate and degree of conversion or polymerization.
- ◆ Viscosity of the final latex.
- ◆ Uniformity and particle size distribution.
- ◆ Reaction stability of the dispersions.

Field evaluations have shown that for suspension polymerization, 0.1 - 1.0% of **GEOwet HR** or **GEOwet W** based on the weight of the monomer is usually sufficient. For emulsion polymerization, 1 - 5% based on the weight of the monomer is sufficient. Optimum concentrations should be determined by the user for the particular application.

Technical Services

Our technical service and sales personnel are available upon request to assist you in the use of **GEOwet** wetting agents in your particular application. Contact Specialty & Construction Division of GEO Specialty Chemicals, Inc., 300 Brookside Avenue, Ambler, PA 19002 or call 888.519.3883.

Packaging, Storage & Handling

GEOwet HR and **GEOwet W** are shipped in 150 lb net, 55 gallon (200 L) polyethylene-lined fiber drums and 40 lb multi-wall paper bags. Store in a dry place. Once the liner has been opened, fold over after every use and keep tightly closed. **GEOwet** powders are hygroscopic and will cake if exposed to moisture or humid environments.

GEOwet WL is supplied in 55 gallon (200 L) plastic drums or bulk quantities. It may congeal or stratify when cold. If frozen, allow to warm to room temperature and mix well before using.

Additional handling information is found in a Safety Data Sheet (SDS), which is available upon request.

For freight purposes **GEOwet** products are classified as: Cleaning, Scouring or Washing Compounds NOI; or Soap, NOI Liquid or other than Liquid or Soap Powders. •

This information is true and accurate to the best of our knowledge, but without any guarantee unless explicitly given. Typical properties should not be construed as specifications. Since the conditions of use are beyond our control we disclaim any liability, including for patent infringement, resulting from the use of these product, data or suggestions.