Specialty and Construction Division Markets and Products

Oil Field

Drilling Lubricants	GEOsulf, GEOlube
Well Cementing Dispersants	LOMAR®, DAXAD®
Corrosion Inhibitors and Intermediates	GEOmeen, QUATRENE®
Demulsifiers	QUATRENE®
Defoamers	GEO FM Series – Water, Silicone or Oil Based
Surfactants, Foaming Agents	HYONIC®, GEOrinse, NOPALCOL®, GEOwet

Concrete Admixtures / Grouts / Cement Manufacturing

Superplasticizers / Dispersants	LOMAR®, DILOFLO®, DAXAD®
Waterproofing / Damp Proofing	NOPCOTE®, GEOest
Defoamers	GEO FM Series – Water, Silicone or Oil Based
Surfactants	HYONIC®, NOPALCOL®, GEOwet
Grinding Aids / Cement Performance Enhancers	GEOsperse, DAXAD®

Gypsum Wallboard / Plasters / Joint Compound / Textures / Ceiling Tiles

Water Reducers / Dispersants	LOMAR®, DILOFLO®, DAXAD®
Defoamers	GEO FM Series – Water, Silicone or Oil Based
Wetting Agents	GEOwet
Foaming Agents	HYONIC®

Emulsion Polymerization

Secondary Emulsifiers	LOMAR®, DAXAD®

Ceramics / Refractories

Dispersants	LOMAR®, GEOsperse, p-DAXAD®
Lubricants	NOPCOTE®, Ammonium Stearate, Potassium Oleate
Defoamers	GEO FM Series – Water, Silicone or Oil Based
Wetting Agents	GEOwet, GEOsulf, NOPALCOL®

Specialty Performance Enhancing Additives (Clay, Mineral, Fiberglass Material, Toll Manufacturing)

Dispersants for Aqueous Media	LOMAR®, GEOsperse, DAXAD®, p-DAXAD®
Defoamers	GEO FM Series – Water, Silicone or Oil Based
Wetting Agents	GEOwet
Surfactants	HYONIC®, NOPALCOL®, GEOsulf, GEOmeen, Glassperse
Lubricants	NOPCOTE®, Ammonium Stearate
Corrosion Inhibitors	GEOmeen

GEO® SPECIALTY CHEMICALS

SPECIALTY AND CONSTRUCTION DIVISION
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SPECIALTY AND CONSTRUCTION DIVISION

GEO® SPECIALTY CHEMICALS

Lomar®, Daxad® and Diloflo®

Polynaphthalene Sulfonate Dispersants

www.geosc.com

the widest product range in the industry

GEO Specialty Chemicals is a global leader in naphthalene sulfonation chemistry. Our technical team has spent decades in the business and has developed some of the world's most advanced dispersants.

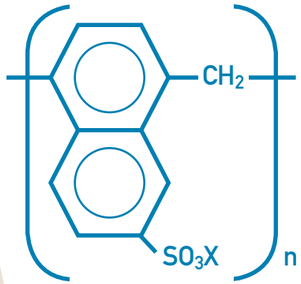
We manufacture the widest variety of products in the industry. We can customize liquids or powders according to your specific needs by altering the degree of sulfonation, molecular weight, solids content, salt type, salt level and several other parameters.

The table below is only a representative sample of our polynaphthalene sulfonate products but it demonstrates their many applications. Numerous more grades are available or being developed.

let us tailor a dispersant for your application

Dispersants like Lomar®, Daxad® and Diloflo® function through adsorption of their hydrophobic polymer backbone onto the surface of a suspended particle. The anionic sulfonate group is oriented away from the particle and imparts a negative charge causing them to repel each other. This effect prevents agglomeration and floc formation. Lomar®, Daxad® and Diloflo® dispersants are effective because they:

- Decrease slurry viscosity
- Increase slurry concentration
- Perform in a wide pH range
- Do not affect surface tension
- Do not contribute to foaming
- Aid in forming stable emulsions
- Reduce surface energy
- Produce faster grinding times



X = Na, Ca, K or NH_4

	COLOR	DEGREE OF SULFONATION	SOLIDS / %	SALT TYPE	SALT (DRY BASIS) / % MAX	AGRICULTURE	CARBON BLACK	CERAMICS	CONCRETE	GYPSUM	OILFIELD	EMULSION POLYMERIZATION	TANNING	TEXTILES
Lomar PW	Light	High	Powder	Sodium	5.0	●	●	●	●			●	●	●
Lomar LS Liquid	Light	High	46	Sodium	2.5	●	●	●				●	●	●
Lomar LS	Light	High	Powder	Sodium	2.5				●				●	●
Lomar PWT	Medium	High	47	Sodium	9.0	●	●					●		
Lomar PM	Light	High	40	Sodium	5.0							●	●	●
Lomar PL	Medium	High	46	Sodium	6.0							●		●
Lomar PWA Liquid	Light	Medium	45	Ammonium	5.0			●				●		●
Lomar LSJ	Dark	Low	42	Sodium	3.5				●			●		
Lomar D Liquid	Dark	High	33	Sodium	12.5			●	●	●	●			●
Lomar D	Dark	High	Powder	Sodium	12.5			●	●	●	●			●
Lomar CA	Dark	High	41	Calcium	0.5			●	●	●	●			
Diloflo 987	Dark	Low	42	Sodium	7.5	●	●	●	●	●	●			
Diloflo CA	Dark	High	41	Calcium	0.5				●	●				
Diloflo CA-30	Dark	High	26	Calcium	0.5					●				
Daxad 14C	Dark	Low	45	Sodium	9.0	●	●					●	●	●
Daxad 16LR	Dark	Low	47	Sodium	9.0	●	●					●	●	●
Daxad 19	Light	High	Powder	Sodium	12.5	●	●		●	●	●		●	●