



# Ingredient solutions for vehicle care



Cleaning applications  
North America

**Nouryon**



# Vehicle care

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Car wash formulators need solutions they can count on. From pre-soak to shampoo to rinse, our specialty chemical solutions can help car wash formulators tackle the toughest challenges. Our portfolio of powerful cleaning ingredients effectively helps remove traffic film, break down organic matter, remove oil film and stubborn mineral deposits, and enhance shine by controlling sheeting and streaking.

## Effective ingredients for each wash step

### Pre-soak

Our broad portfolio of high-performing ingredients – ranging from chelating agents, surfactants and hydrotropes – can be used to formulate effective products that quickly penetrate, loosen, remove soil and reduce redeposition.



### Main wash

Choose from a variety of ingredients that can be used to produce thick, rich foam for complete coverage, maximum surface cling and oil film removal.



### Rinse

Leave a shine behind by leveraging our rinse aides to balance the water beading and streaking to enable fast drying.



## Product portfolio

### Chelating agents

Our chelating agents can manage hard water and enhance cleaning performance. They work by binding to metal ions, such as calcium and magnesium, which are prevalent in hard water, preventing them from interfering with the cleaning process.

Product / chemistry	Features and benefits	Pre-soak	Main wash	Rinse
Dissolvine® E-39 EDTA-Na <sub>4</sub>	<ul style="list-style-type: none"> <li>• Effective at binding with metal ions</li> <li>• Improves detergency</li> <li>• Can replace phosphonates</li> <li>• Produced in US</li> </ul>	•	•	
Dissolvine® GL-47-S GLDA-Na <sub>4</sub>	<ul style="list-style-type: none"> <li>• Faster acting to provide improved washing speed</li> <li>• Safer, readily biodegradable chelating compound</li> <li>• High solubility over a wide pH range</li> <li>• Meets US EPA Safer Choice standards</li> <li>• Produced in US</li> </ul>	•	•	
Dissolvine® M-40 MDGA-Na <sub>3</sub>	<ul style="list-style-type: none"> <li>• Faster acting to provide improved washing speed</li> <li>• Safer, readily biodegradable chelating compound alternative to EDTA</li> <li>• Available in solid and liquid form</li> <li>• Meets US EPA Safer Choice standards</li> </ul>	•	•	

### Hydrotropes

Carwash formulations require high performance to handle tough cleaning challenges. Adding a hydrotrope to your cleaning formulation improves formulation stability, boosts cleaning efficiency and regulates foaming, thus enhancing the cleaning process.

Product / chemistry	Features and benefits	Pre-soak	Main wash	Rinse
AG™ 6206 Alkylglucoside	<ul style="list-style-type: none"> <li>• Low forming nonionic hydrotrope</li> <li>• Excellent solubility in extreme caustic environments (up to 50% caustic)</li> <li>• 75% active matter</li> <li>• Readily biodegradable</li> <li>• Meets US EPA Safer Choice standards</li> </ul>	•		
Berol® 561 Quaternary C <sub>12-14</sub> alkylamine ethoxylate methylchloride	<ul style="list-style-type: none"> <li>• Multifunctional co-surfactant</li> <li>• Excellent hydrotrope, degreasing booster, boosting the detergency of a cleaning formulation, especially on particulate soils</li> <li>• The most effective hydrotrope for nonionic surfactant at very low loading</li> <li>• Meets US EPA Safer Choice standards</li> <li>• Produced in US</li> </ul>		•	
Berol® Nexus Amine alkoxyate derivative	<ul style="list-style-type: none"> <li>• Next generation, high-performing non-quat surfactant solution for hydrotroping and co-surfactancy</li> <li>• Compatible with a variety of nonionic and anionic surfactant cleaning systems</li> <li>• Highly concentrated aqueous liquid, 70%</li> <li>• Moderate foamer</li> <li>• Produced in the US</li> </ul>		•	

## Surfactants

We have a broad range of nonionic and specialty surfactants that are engineered to enhance the efficacy of cleaning formulations.

Product / chemistry	Features and benefits	Pre-soak	Main wash	Rinse
Berol® 226 SA Alcohol ethoxylate and co-surfactant blend	<ul style="list-style-type: none"> <li>• High-performance nonionic surfactant blend</li> <li>• Outstanding wetting and emulsifying properties</li> <li>• Specifically engineered to enhance the efficacy of cleaning formulations in car wash applications for concentrated solutions</li> <li>• Meets US EPA Safer Choice standards</li> <li>• Produced in US</li> </ul>	•	•	
Berol® 260 C <sub>9</sub> -C <sub>11</sub> alcohol ethoxylate	<ul style="list-style-type: none"> <li>• Narrow range nonionic surfactant</li> <li>• Offers strong degreasing performance</li> <li>• Alkali-stable</li> <li>• Compatible with most commonly used surfactants and builder grades</li> <li>• Effective at very low concentrations</li> <li>• Low foam and low viscosity</li> <li>• Meets US EPA Safer Choice standards</li> <li>• Produced in US</li> </ul>	•		
Berol® 609 Alcohol ethoxylate blend	<ul style="list-style-type: none"> <li>• High-performing nonionic surfactant ideal for towel laundry</li> <li>• Fast dissolving, easy to formulate</li> <li>• NPE free</li> <li>• Meets US EPA Safer Choice standards</li> <li>• Produced in US</li> </ul>	•	•	
Berol® DGR 81 Alcohol ethoxylate and co-surfactant	<ul style="list-style-type: none"> <li>• Environmentally improved, readily biodegradable nonionic surfactant blend</li> <li>• Very good degreasing properties with low to medium foam</li> <li>• Our strongest high caustic cleaner</li> <li>• Soluble and stable in &gt;40% NaOH</li> <li>• Soluble in high electrolytes and in weak and strong acids</li> <li>• Requires no further surfactant be added for effective high-alkali cleaning</li> </ul>	•	•	
Ethylan™ X4 SA Ethylan™ X6 SA C <sup>10</sup> alcohol ethoxylate	<ul style="list-style-type: none"> <li>• Multibranched ethoxylate providing fast wetting and low foam</li> <li>• Better water solubility: less need for hydrotropes</li> <li>• Faster cleaning requiring less rinsing</li> <li>• Low odor</li> <li>• Produced in US</li> </ul>	•	•	



### Mineral Seal Oil (MSO) Emulsifiers

Emulsifiers for Mineral Seal Oil (MSO) promote effective vehicle drying by controlling sheeting, which is crucial for minimizing water spots and streaks, resulting in a cleaner and drier vehicle.

Product / chemistry	Features and benefits	Pre-soak	Main wash	Rinse
Arquad® 2C-72 PG Dicocodimethyl ammonium chloride	<ul style="list-style-type: none"> <li>• Quaternary ammonium compound to formulate high-performing car rinse aids</li> <li>• Non-flammable</li> <li>• Offers enhanced drying and minimal streaking</li> <li>• Stable across the entire pH range</li> <li>• Produced in US</li> </ul>			•
Arquad® 2C-75 Dicocodimethyl ammonium chloride	<ul style="list-style-type: none"> <li>• Quaternary ammonium compound to formulate high-performing car rinse aids</li> <li>• Offers enhanced drying and minimal streaking</li> <li>• Stable across the entire pH range</li> <li>• Produced in US</li> </ul>			•
Ethomeen® T/15 Tallowalkylamine ethoxylate	<ul style="list-style-type: none"> <li>• Tallow amine ethoxylate</li> <li>• Improves water sheeting in quat-based rinse aid formulations</li> <li>• Produced in US</li> </ul>			•



## Sample formulations

### Pre-soak, high pH

Function	Product	%
Caustic	NaOH	15.0
Hydrotope	AG™ 6206	3.0
Solvent	Water	balance

Dilute 1:10-1:20

### Main wash, high foam

Function	Product	%
Degreasing	Berol® 266 SA	10.0
Metal ion control	Dissolvine® E-39	6.0
Builder to increase the cleaning power	Metasilicate	2.0
Foam boosting	Berol® Nexus	1.5
Solvent	Water	balance

Dilute 1:40-1:60

### Main wash, medium foam

Function	Product	%
Degreasing	Berol® 266 SA	10.0
Metal ion control	Dissolvine® E-39	6.0
Builder to increase the cleaning power	Metasilicate	2.0
Solvent	Water	balance

Dilute 1:40-1:60

### Rinse aid, high beading

Function	Product	%
Solvent	Water	50.0
Surface modifier	Mineral Seal Oil (Conosol 260)	25.0
MSO emulsifier	Arquad® 2C-75	18.8
Compatibility aid	2-butoxyethanol	6.2

### Rinse aid, sheeting

Function	Product	%
Solvent	Water	48.0
Surface modifier	Mineral Seal Oil (Conosol 260)	25.0
MSO emulsifier	Arquad® 2C-75	18.8
Compatibility aid	2-butoxyethanol	6.2
Secondary emulsifier to improve sheeting	Ethomeen® T/15	2.0

### Rinse aid, high beading, non-flammable

Function	Product	%
Solvent	Water	50.0
Surface modifier	Mineral Seal Oil (Calumet 600)	25.0
MSO emulsifier	Arquad® 2C-72 PG	18.8
Compatibility aid	2-butoxyethanol	6.2

### Rinse aid, high sheeting, non-flammable

Function	Product	%
Solvent	Water	48.0
Surface modifier	Mineral Seal Oil (Calumet 600)	25.0
MSO emulsifier	Arquad® 2C-72 PG	18.8
Compatibility aid	2-butoxyethanol	6.2
Secondary emulsifier to improve sheeting	Ethomeen® T/15	2.0

### Laundry formulation for cleaning towels

Function	Product	%
Solvent	Water	82.0
Surfactant	Sodium DDBSA (40%)	9.0
Surfactant	Berol® 609	6.0
Chelating agent	Dissolvine® E-39	3.0
Antifoam, if needed		

Contact us directly for detailed product information and sample request  
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# Nouryon

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