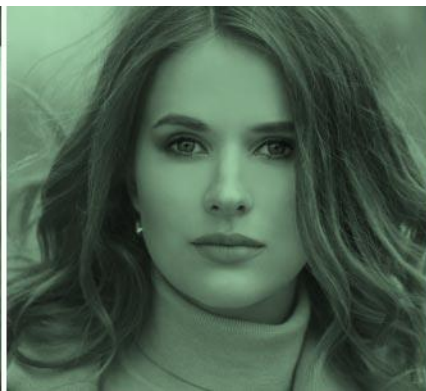


Cola[®]Dry CR-502 A One-For-All Ceramic Sealant as MSO-Free Drying Agents and Tire Dressing

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Outline

- ColaDry CR-502 as Ceramic Sealant
- ColaDry CR-502 as Drying Agents and Clearcoats
- ColaDry CR-502 as Tire Dressing

Major Marketing Themes of Wax and Protection in Car Wash

- 1960s: Hot waxes
- 1970s: Foam polishes and sealer waxes
- 1980s: Pressure waxes and glaze
- 1990s: Triple foam conditioners and polishes
- 2005: Rain-X[®] online, total body protectants, Teflon[®] coating
- 2011: Hot Lava Waxes (spray bar of big bubbles with carnauba wax)
- 2019: Ceramic sealants and coatings (indicating silica type of ceramics in durability)



How to Generate “Ceramic” Effect in Auto Car Wash?

Polymer Technologies
+
Bonding Technologies



Cola®Dry CR-502

Ceramic Sealant Concentrate

DESCRIPTION LISTINGS Proprietary Polymer Blend
Canada (NDSL); US (TSCA); Australia (AICS); China (IECSC); New Zealand (NZIOC); Taiwan (TCSI)

Cola®Dry CR-502 is an advanced sealant developed for the car wash and vehicle care industry. This sealant combines state-of-the-art silicone polymers technology for shine and protection and a bonding technology that maximizes the retention of the polymers for high efficiency, low cost, and enhanced durability. ColaDry CR-502 will help in the formulation of new “ceramic” finish products by replacing wax additives in current formulas or by simply diluting or injecting it through a spray bar at up to 4000:1 dilution. It can also be used in a finishing polish in a detailing shop.

The strong protection from the sealant will help to prevent damage caused by acid rain, UV radiation, tree sap, bird droppings, and other surface debris. ColaDry CR-502 will prevent dirt and grime from adhering to the car surface and improve overall cleaning time and help create “self-cleaning” surfaces.

| Applications | Usage |
|--|---|
| Ceramic Sealant for an automatic carwash | Use with a dilution pump at 2000-4000:1 |
| Total Body Protectant (to be used at 1oz/car) | 4-6% |
| Clearcoat or Sealant in a carwash (30-40% active) | 1-3% |
| Tricolor wax conditioner | 1-5% |
| Windshield treatment for (Rain-X type effect) | 0.5-2.0% |
| Top finish in detailing shop (self-cleaning surface) | 10-30% |
| Wash and shine car wash (2 oz/gallon dilution) | 2-4% |

SPECIFICATIONS

| | |
|-------------------|--------------|
| Appearance | Clear Liquid |
| pH (as is) @ 25°C | 5.0 – 7.0 |



STORAGE / HANDLING

Cola®Dry CR-502 should be stored in closed containers. Store between 40-140°F. Never freeze the product. Shipped in 55 gallon poly drums (net weight 450 lb/204 kg) and totes (2250 lb/1020 kg). Typical shelf life is 12 months from date of manufacture. Safety Data Sheets may be found at www.colonialchem.com.

Colonial Chemical

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Innovative Specialty Surfactants

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Cola[®] Dry CR-502 Specifications

- DESCRIPTION Proprietary Polymer Blend
- LISTINGS US (TSCA); Canada (NDSL); Australia (AICS); China (IECSC); New Zealand (NZIOC); Taiwan (TCSI)
- BENEFITS:
 - Unlimited Dilution:** Clear and water soluble with unlimited dilution without clouding up
 - Protection:** Prevent damage caused by acid rain, tree sap, bird droppings, and other surface debris, and improve re-cleaning time
 - Low Cost:** Low product cost and low usage level to create same effect
 - One-for-All:**
 - **Ceramic sealant**
 - Total body protection
 - **MSO-Free drying agent and clearcoat**
 - Windshield Rain-X[®] effect
 - **Tire dressing**

Cola[®] Dry CR-502 on Vehicle Surface



Cola® Dry CR-502 All-In-One Applications (via Direct Dilution or Formulation)

| APPLICATIONS | APPLICATIONS METHODS |
|-----------------------------------|--|
| Ceramic Sealant | Direct dilution 500-1000 to 1, or 1/8 to 1/4 oz / gallon / car |
| Total Body Protectant | Direct Dilution 500-1000 to 1, or 1/8 to 1/4 oz / gallon / car |
| Drying Agent | 1500-4000 to 1 with a dilution pump or pre-dilute (MSO-Free) |
| Windshield Rain-X® Effect | 5-6% for hand wipe 1-2% in windshield washer |
| Wipe-N-Shine / Waterless Car Wash | Dilution 500-4000 to 1 |
| Leather and Vinyl Shine | Dilution 500-1000 to 1 |
| Tire Dressing (auto or hand) | Use AS /S or dilute up to 2:1 (optional: thicken w/HPC) |

Focused Application 1. Ceramic Sealant

- Dilution Ratio: **500-1000 to 1** (direct injection with pump or dilute with a hydrominder)
- Actual Usage: Average **1/8 to 1/4 oz/car** (competition recommend 1oz/car)
- Result: Better water-repelling, beading, and durability
- Market: Replacing Ceramic Sealants and Total Body Protectants at lower costs

Cola[®] Dry CR-502 vs. Benchmark Ceramic Sealant



Focused Application 2. MSO Free Drying Agents

- Dilution Ratio: **1500-4000 to 1** (direct injection with pump or dilute with a hydrominder)
- Actual Usage: **Average 1/24 to 1/16 oz/car**
- Benefits:
 - **Free of Mineral Seal Oil** (defined as a suspect of carcinogen in EU)
 - **Reduced COD (lower carbon release)** into waste stream
 - **Equal to 2 x 100% active (lower shipping cost by active)**
 - Improved drying and durability over MSO-based (like using a total body protectant in place of drying agent)
 - Unlimited dilution without clouding up
 - No headache of formulating microemulsions
 - Non-flammable
 - Lower cost in use

Cross Reference of ColaDry CR-502 as Drying Agents

| Regular Drying Agents (%active) | 100% | 80% | 50% | 40% | 30% | 20% |
|---------------------------------|--------|--------|--------|-------|-------|-------|
| ColaDry CR-502 | 50% | 40% | 25% | 20% | 15% | 10% |
| Dilution Ratios (up to) | 2000:1 | 1600:1 | 1000:1 | 800:1 | 600:1 | 400:1 |

- % active indicates total concentration of components other than water
- In general, use half of the concentration of CR-502 to replace MSO or OFS based drying agents

ColaDry CR-502 vs. Benchmark Drying Agents

Drying Agents - Hood Test

**Cola[®]Dry CR-502
vs. Dicocoquat-Based
December 11, 2020**

Focused Application 3. Tire Dressing (Sling-Free)

- Dilution Ratio: **AS /S or Dilute Up to 2:1** (before thickening)
- Cost in Use: **1/2 to 1oz per tire or 2-4 oz/car**
- Benefits:
 - Significantly reduces sling through bonding technology
 - Clear solution and would not split in cold weather as in silicone emulsion
 - No need to combination of silicones with different molecular weight
 - Easy to thicken to fit online applicators or hand application (from low viscosity to gel)
 - Great shine

ColaDry CR-502 as Tire Dressing



Cola®Dry CR-502 in Tire Dressing

Thickening of ColaDry CR-502 (AS IS) w/ HPMC

| HPMC, WT% | Viscosity, cps |
|-----------|----------------|
| 1.0 | 1,050 |
| 1.25 | 2,050 |
| 1.5 | 4,550 |
| 2.0 | 15,000 |



Points to Take Away

- **One-for-all** in application by simple dilution
 - Ceramic sealant
 - Total Body Protectant
 - Replacing existing MSO, OFS based drying agents **MSO-free, (200% concentrate, lower shipping cost), lower carbon discharge**
 - Tire Dressing (**no-sling**)
 - Rain-X type windshield treatment (**non-smearing**)
 - Leather and vinyl shine (**less greasy**)
- Non-VOC, Non-flammable
- Unlimited dilution without clouding up, no split
- Lasting protection against acid rain, tree sap, bird droppings, and other surface debris, and improving re-cleaning time
- Lower costs

Questions?

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Thank you!

