

# An Innovation in Drying Agents

How to Eliminate Mineral Seal Oil from Your Car Wash and Improve Performance

**Jordan Taylor** – Product Steward, Care Chemicals



# Colonial Chemical Manufactures Advanced Vehicle Care Products



HIGH-PERFORMANCE  
(SPECIALTY)



PRODUCT  
SELECTION



LOWERING  
ENVIRONMENTAL  
IMPACT



EASE-OF-USE



LOWER EFFECTIVE  
USE RATES



MULTI-FUNCTIONAL  
PRODUCTS



CONSOLIDATING  
INVENTORY



COST SAVINGS



TECHNICAL SUPPORT

[illegible][illegible]

A new generation of products  
for total vehicle care,  
*from start to finish.*



place of a dusty, leading specialty store. Our innovative technologies make it possible to be painting, drawing, wet, drying, staining, and protecting your interior surfaces with advanced technologies that free drying, and new perfect surface of flowers—can be reached using our products in many ways with minimal effort. In many ways, these products offer a labor saving—especially in shorter projects can also help eliminate the thickening and Prep. It comes with a methylated alcohol quarts.

One of our wide area products, Colonial Gray is especially effective in exterior areas. Contact us for complete product samples, and the technical assistance of any need.

**day.**

For more information on technical advisors, visit our product you want with a direct, creative, and useful.

<http://www.elsevier.com>

onial Chemical

Specialty Surfactants





# Overview & Concepts

## Mineral Seal Oil Drying Aids

- Mineral seal oil
- Dicocodimonium chloride (dicocoquat)
- Microemulsions
- Issues

## Ceramic Drying Aids

- Silicone components
- Other multi-functional components
- Electrostatic deposition
- Benefits

## Innovation – Cola®Dry CAV

- New Cost-Efficient Solution

## Drying Concepts

- Water Breaking
- Beading / Sheeting
- Contact Angle
- Hysteresis / Drop Mobility
- Concentration / Dilution Ratio
  - Dilution-Performance
- Viscosity
- pH / Alkaline Carryover

## Product/Untreated Surface v. Water/Treated Surface

- Both matter for performance

## Surface Properties & Durability

- Hydrophobicity/Protection/Hysteresis/Lubricity/Gloss

## Ceramic Concentrates – RTU (dilute) or as Additives

- **Cola®Dry CAV** and **Cola®Dry CR-502**

- Proprietary blends of ceramic polymers and other multi-functional chemistries
- Water based, Oil-free, MSO-free
- Highly dilutable
- Multiple offerings based on dilution strength
- Durable coating
- Reclaim compatible (Reclaim preferred)
- Non-flammable
- Allow for a streamlined chemical inventory and less complex formulations/production

- While both products can be utilized for a range of offerings from ceramic coatings to drying aids, the products are optimized in one direction or the other.
- Cola®Dry CR-502 is optimized for premium ceramic coatings with balanced beading/sheeting action
- Cola®Dry CAV is optimized for drying performance with sheeting action and to replace standard dicocoquat/MSO drying aid formulations

## *Performance Surfactants*

# *Cola<sup>®</sup>Dry CAV*

High Performance MSO-Free Drying-Aid, Spray-Wax and Sealant



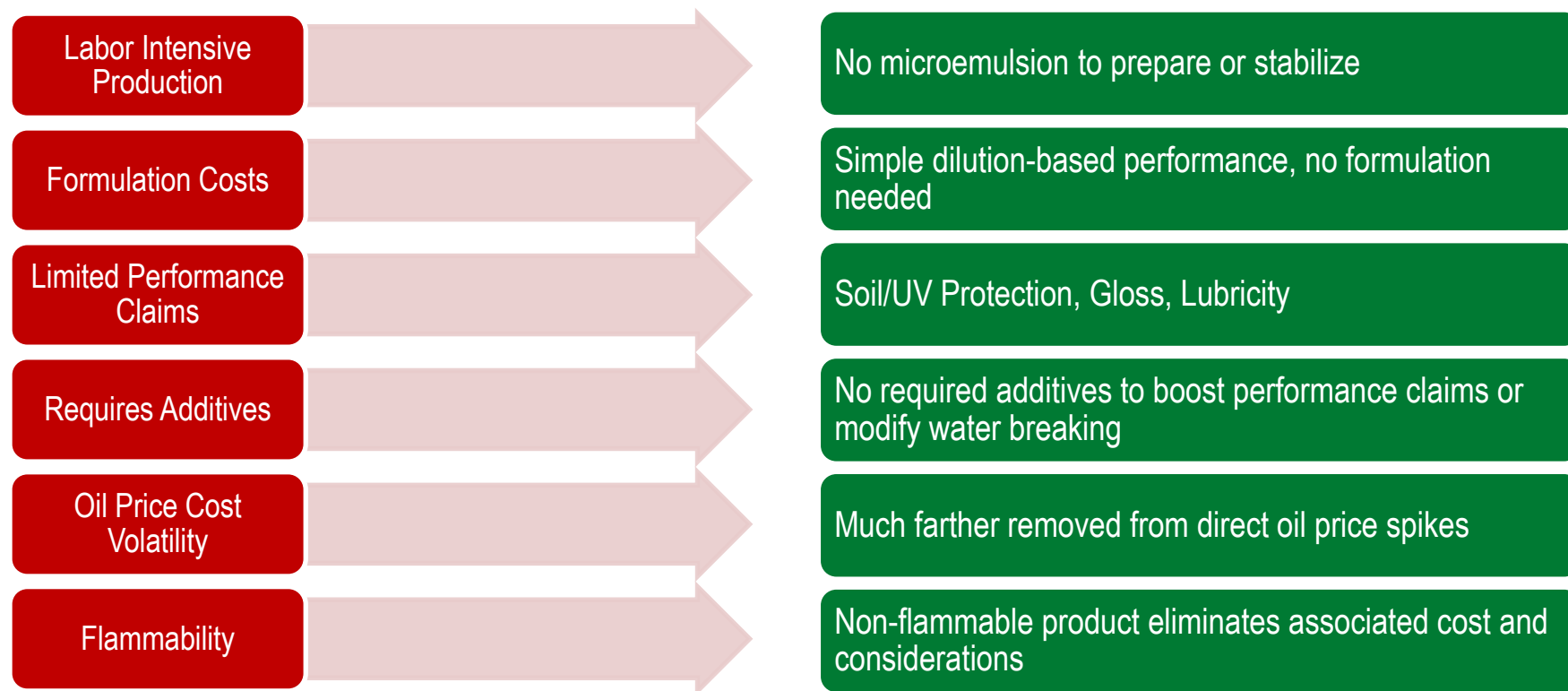
## Introducing Cola®Dry CAV

- Drying-Aid focused Application
- Novel combination of functional ingredients
  - Unique multi-functional surfactant boosts performance
  - Trusted silicone sealant
- High performance, low cost
  - Reduced silicone, peak performance
  - Less quaternary load
  - No MSO or Oils
- High efficiency
  - Similar dilution rates as standard MSO products
  - Drastically improved durability
  - Cost Competitive (MSO drying aids)

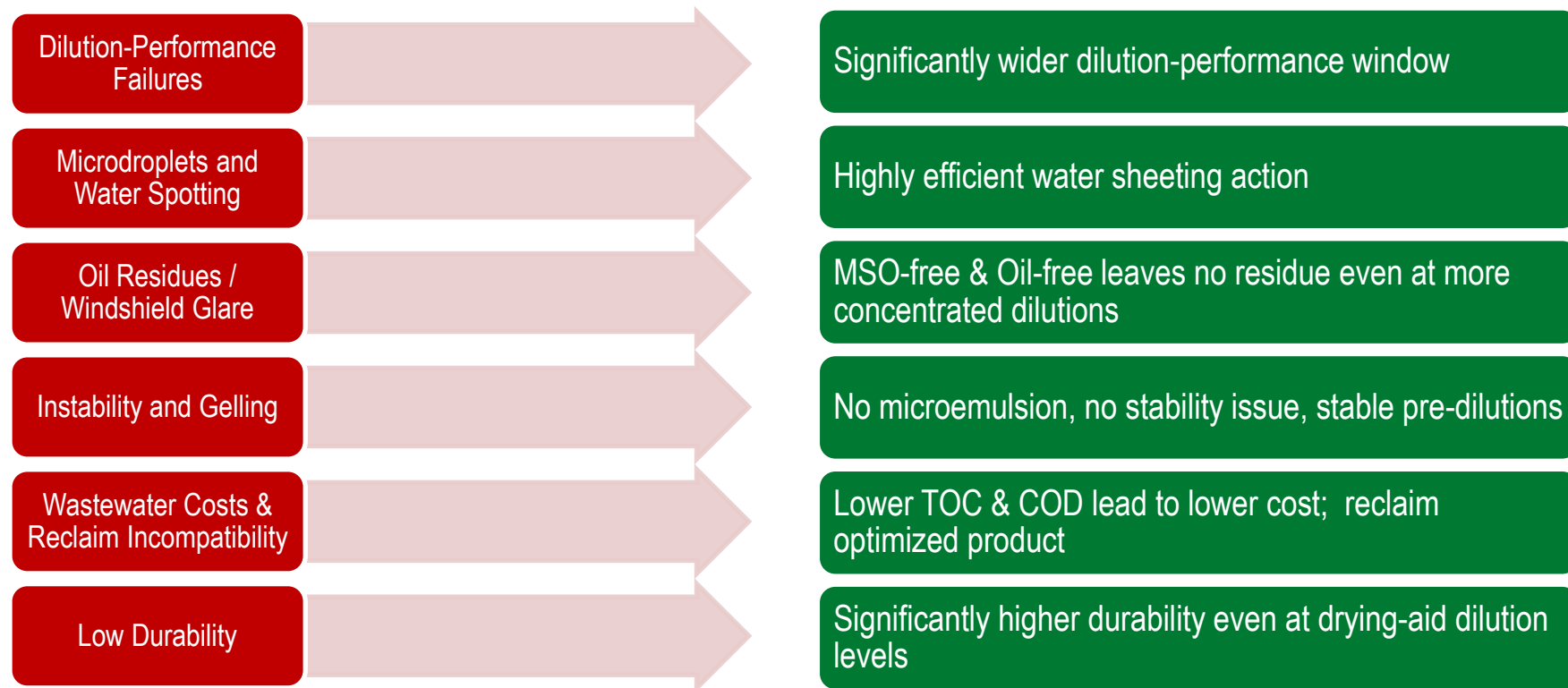




# Solving Issues for Manufacturers



# Solving Issues for Operators



# Additional Cola<sup>®</sup>Dry CAV Strengths



# What to Expect at Various Wash Formats

- **Self-Service**

- Perfect for a wax/drying aid for blow dry ease or to limit towel drying for those offering those services

- **In-Bay Automatic / Roll-Over & Tunnel / Conveyor**

- Water-break with or without rinse-off means compatibility with either layout
- Ultra-lean dilution range for drying aids can extend past 1:2000 when preceded by other protectants

- **All Formats**

- No MSO is a benefit to wastewater costs
- Cola®Dry CAV is a reclaim-ideal product with lower quat content, increased biodegradability, broad surfactant compatibility



# Key Considerations

- ***pH neutralization***

- A neutral to acidic pH is required. Inadequate surface prep can affect product dilution/performance

- ***Viscosity***

- This is a water-thin product that may need a metering module to control for excessive draw rates especially for customers currently using thicker dicocoquat-based formulations

- ***Dilution***

- Product cost efficiency relies on ultra-lean dilution rates ranging from lower than 1:250 to higher than 1:2000. While this product avoids the typical over-dosage water break failure of MSO products, care must be taken to avoid product waste. Metering modules can address the need for lean dilutions when options are limited or if pre-dilution is not preferred



Standard MSO Formulation

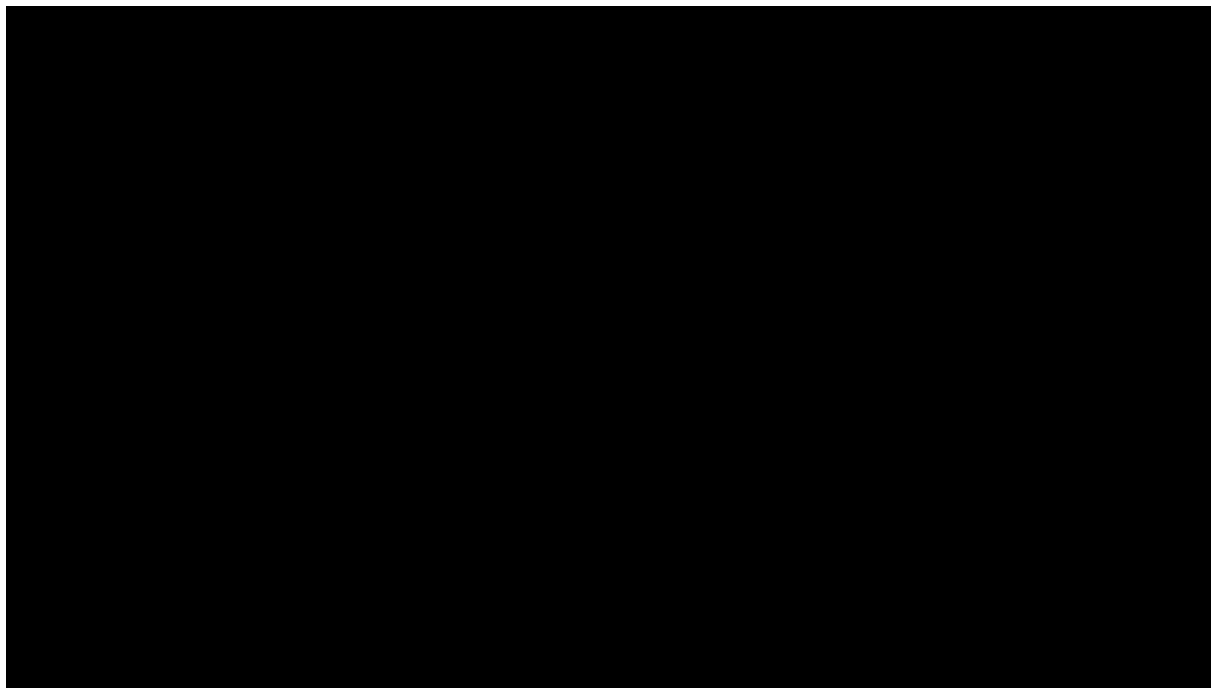
(100% Active)

1:2000 dilution

Cola<sup>®</sup>Dry CAV

(As Supplied)

1:2000 Dilution



Standard MSO Formulation

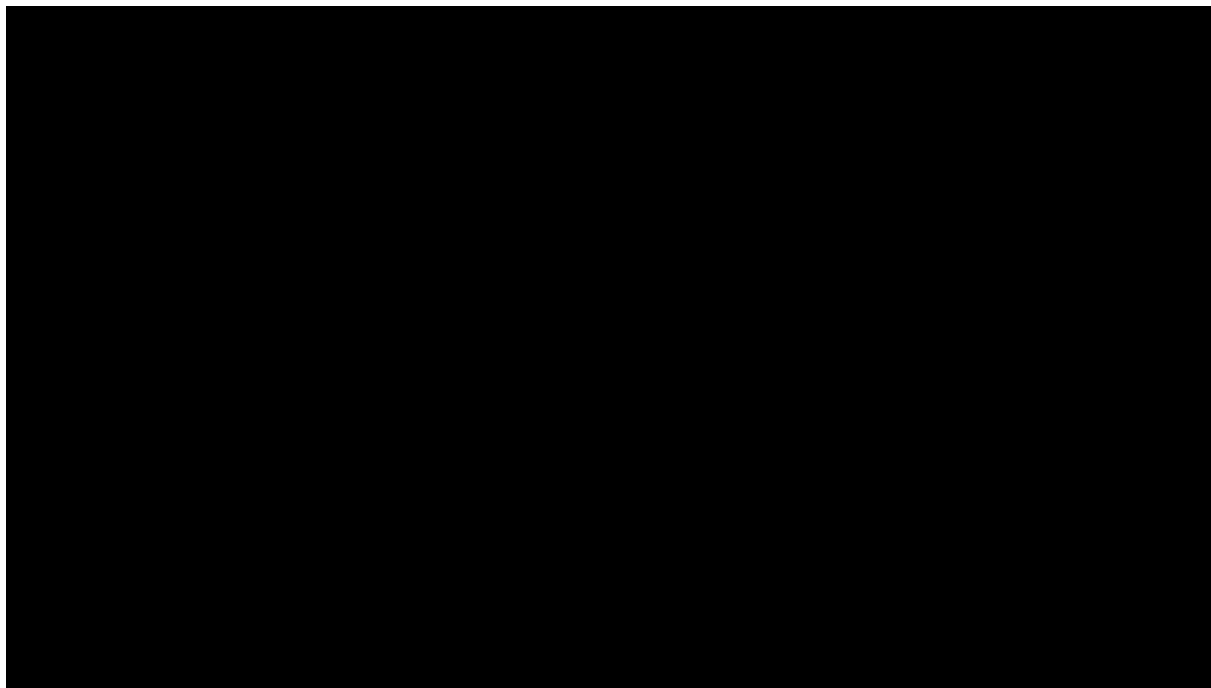
(100% Active)

1:2000 dilution

Cola<sup>®</sup>Dry CAV

(As Supplied)

1:2000 Dilution





Standard MSO Formulation

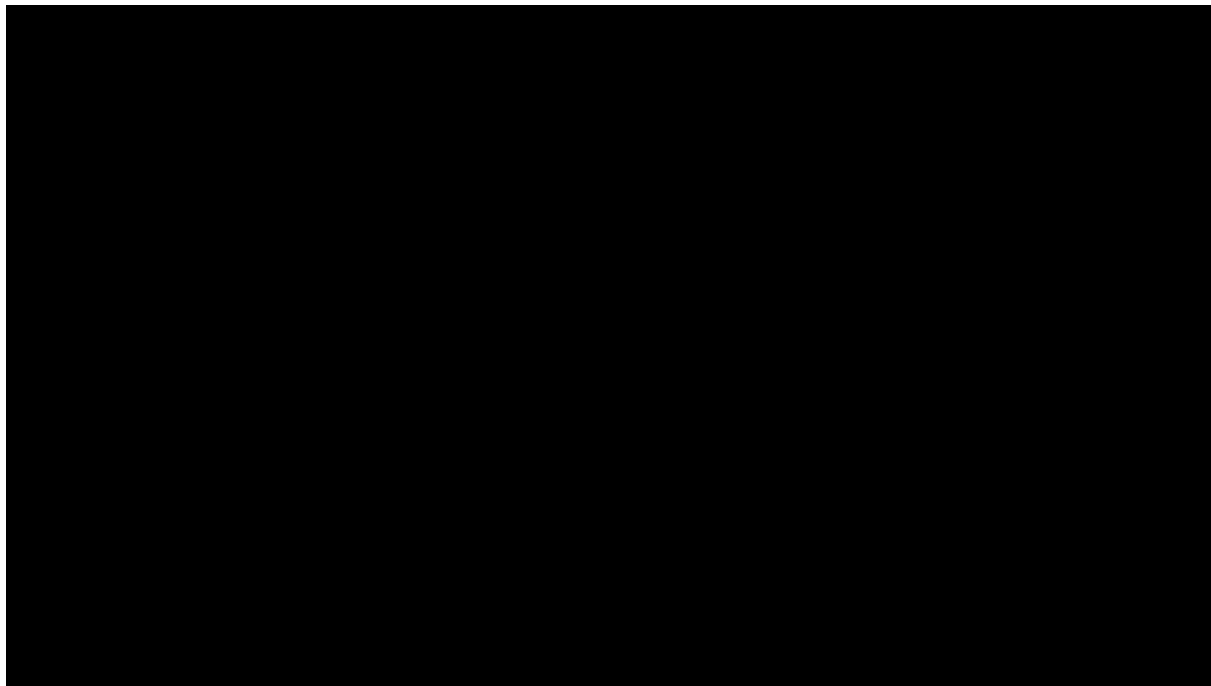
(100% Active)

1:250 dilution

Cola<sup>®</sup>Dry CAV

(As Supplied)

1:250 Dilution



Standard MSO Formulation

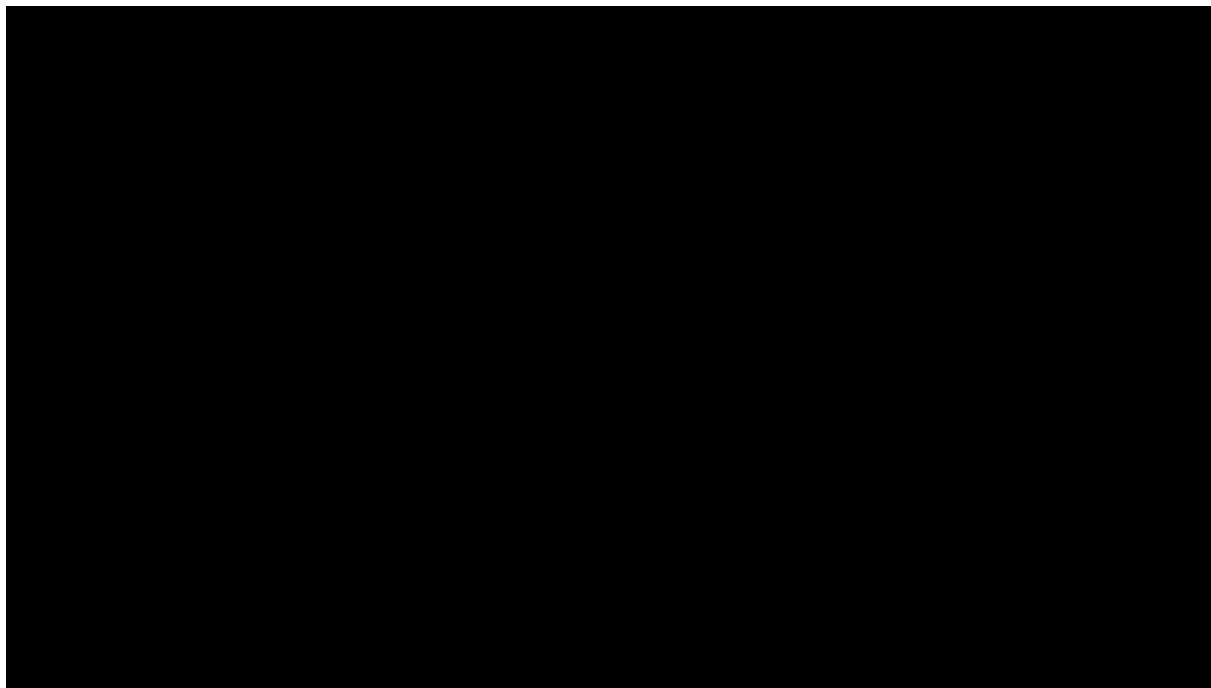
(100% Active)

1:250 dilution

Cola<sup>®</sup>Dry CAV

(As Supplied)

1:250 Dilution



# Demonstration

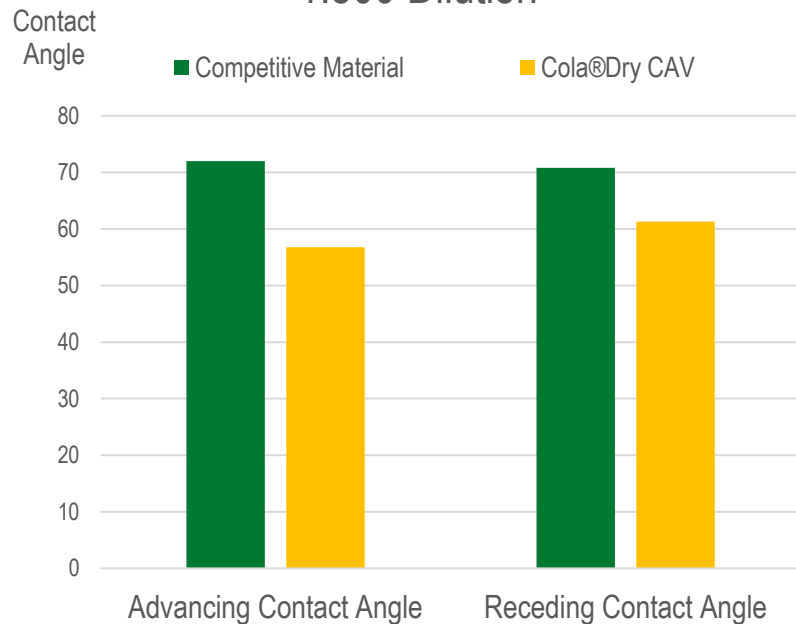
1:500 Dilution  
Competitive Material

1:500 Dilution  
Cola®Dry CAV



## Performance – Contact Angle

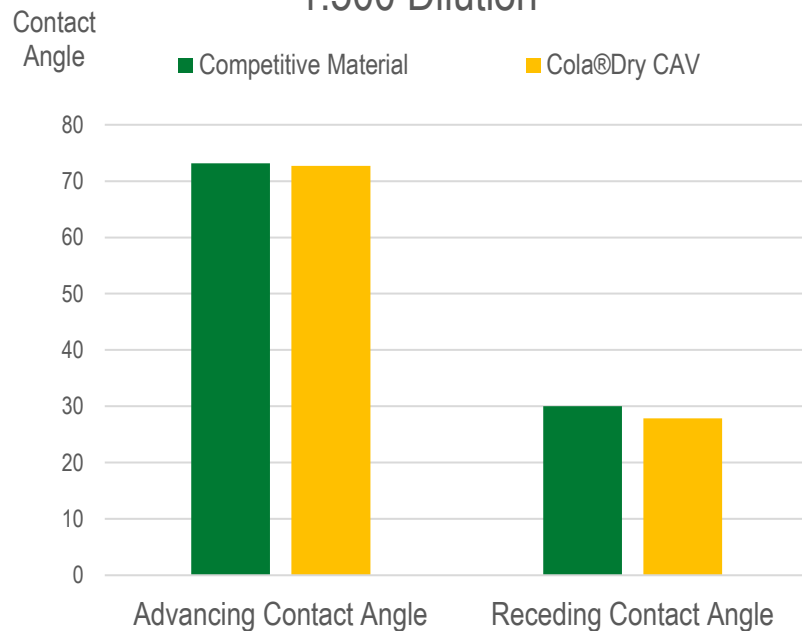
Contact Angles of Drying Agent  
on Untreated Surface  
1:500 Dilution



- Initial action of the drying agent is shown here
- The substrate for contact angle measurements is glass and is analogous to other car surfaces
- The car hood test confirms the performance.

## Performance – Contact Angle

Contact Angles of Tap Water  
on Treated Surface  
1:500 Dilution



- This slide shows the performance of the product during a tap water rinse.
- Virtually no difference can be demonstrated

## Cola®Dry CAV All-In-One Applications (via Direct Dilution, Pre-dilution, or Dilution Pump)

| APPLICATIONS                              | APPLICATION METHODS                            |
|-------------------------------------------|------------------------------------------------|
| <b>Ceramic Sealant</b>                    | 1:250-500 Dilution* (16-8 ml / car)            |
| <b>Total Body Protectant</b>              | 1:500-1000 Dilution* (8-4 ml/ car)             |
| <b>MSO-Free Drying Agent or Clearcoat</b> | 1:500-2000 Dilution* (8-2 ml / car)            |
| <b>Windshield Rain-X® Effect</b>          | 5-10% for hand wipe, 2-4% in windshield washer |
| <b>Wipe-N-Shine / Waterless Car Wash</b>  | 1:50-250 Dilution                              |
| <b>Hand Finish</b>                        | 25-30%                                         |

\*Ideal for dilution pumps; Venturi systems likely need metering modules or modified dilution conditions for high draw rates on ultra-lean dilutions of this water-thin product

# Cola<sup>®</sup>Dry CAV

| Description            |                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Common Name            | Mixture of Silicone Polymer and Zwitterionic Surfactant                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Global Clearances      | Global (including REACH)                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Physical Form          | Clear Liquid                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Key Features           | <ul style="list-style-type: none"> <li>• <b>MSO/Oil-free</b></li> <li>• <b>Easy to use</b>, ready to dilute drying aid to replace MSO type</li> <li>• Provides “<b>ceramic</b>” finish, no additives needed</li> <li>• <b>Increased sheeting</b> vs other MSO-free drying aids and more traditional MSO formulations</li> <li>• <b>Reduced quat, more biodegradable</b> than our previous ceramic drying aid</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Higher biobased</b> content</li> <li>• <b>Drastically improved durability</b> compared to dicocoquat formulations</li> <li>• <b>Non-flammable</b></li> <li>• <b>Water reclamation preferred</b> product</li> <li>• Optimized for <b>reduced water spotting</b></li> <li>• Significantly <b>wider dilution-performance</b> compared to traditional MSO formulas</li> </ul> |
| Suggested Applications | MSO-free Drying Aid<br>Total Body Protectant<br>Ceramic Sealant                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Usage                  | Per use (prior slides) up to 1:2000+                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                       |

# The End

*Questions? Thank you for your attention!*

