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CHEMICAL COMPANY

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DISCOVER A **BETTER WAY**<sup>™</sup>

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# Pop COLOR

COSMETICS KIT

**ANGUS**<sup>®</sup>  
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DISCOVER A **BETTER WAY**<sup>™</sup>

From vibrant and adventurous to elegant and inspiring, cosmetics trends change more often than the seasons. With new looks popping up by the minute, it takes being different and bold to stand out in a crowd.

Pop Color is a unique color cosmetics kit specifically formulated to provide a distinctive look that helps make your inner beauty shine on the outside.

DISCOVER A **BETTER WAY**™ for your color cosmetics formulations with ANGUS.

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**Consumers demand much more than bold looks and creative textures from today's color cosmetics applications. They also want products with ingredients that are proven safe and gentle for sensitive skin areas.**

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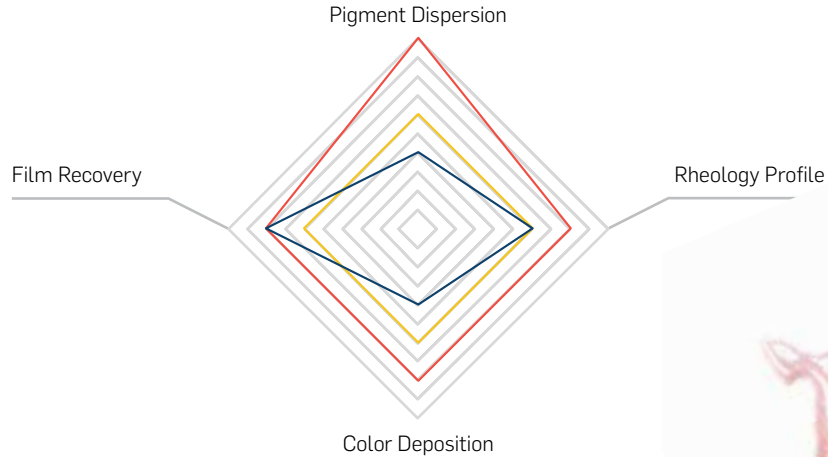
ANGUS' high-purity ULTRA PC™ amino alcohols provide formulators with a unique combination of high-efficiency neutralization, improved emulsion stabilization and enhanced pigment dispersion, together with a mild, low-odor profile. Discover the multifunctional performance benefits of AMPD ULTRA PC™ (INCI: Aminomethyl Propanediol), AMP-ULTRA™ PC 2000 (INCI: Aminomethyl Propanol) and TRIS AMINO™ ULTRA PC (INCI: Tromethamine) and make your cosmetics formulations pop.

- Offers compatibility across a wide range of platforms
- Improves pigment dispersion, film development, volume and shine in mascara and eye makeup
- Enhanced dispersion of solids for smooth, spreadable BB Creams
- Provides superior viscosity control and film formation on lash
- Enhances formulation stability
- Ideal for use in hypoallergenic and eye-area cosmetics
- More favorable health and environmental profile compared to TEA and NaOH

The most sought-after color cosmetics enable consumers to weave a tapestry of vibrant shades and colors to deliver a feeling of uniqueness and beauty that empowers and instills confidence. ANGUS' ULTRA PC™ products provide superior application and performance properties to this industry through enhanced dispersion of pigments, improving application performance (rheology), and improved film deposition and recovery (thixotropy). By working with the anionic emulsifiers, ANGUS' ULTRA PC™ products interact at the surface of the pigments to create better dispersions and smaller particle sizes in final products. This results in superior color performance.

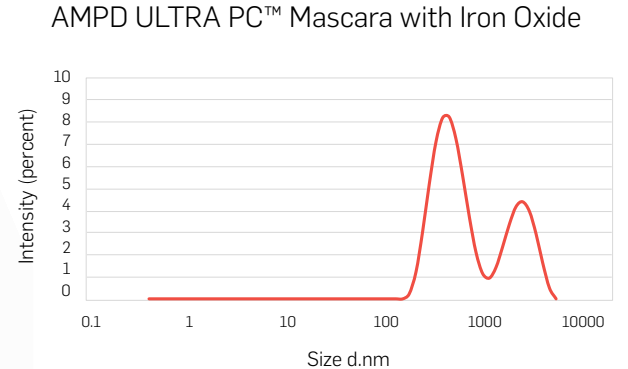
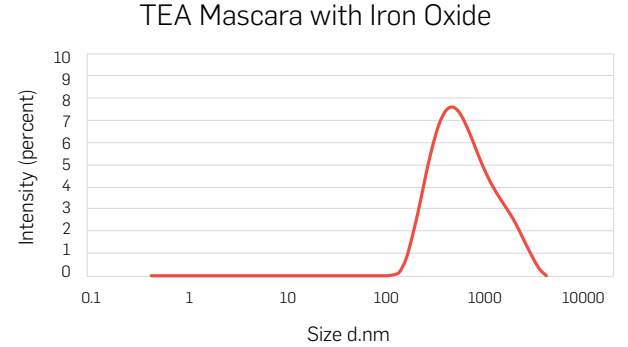
### Mascara Properties

- AMPD ULTRA PC™
- TEA
- Caustics



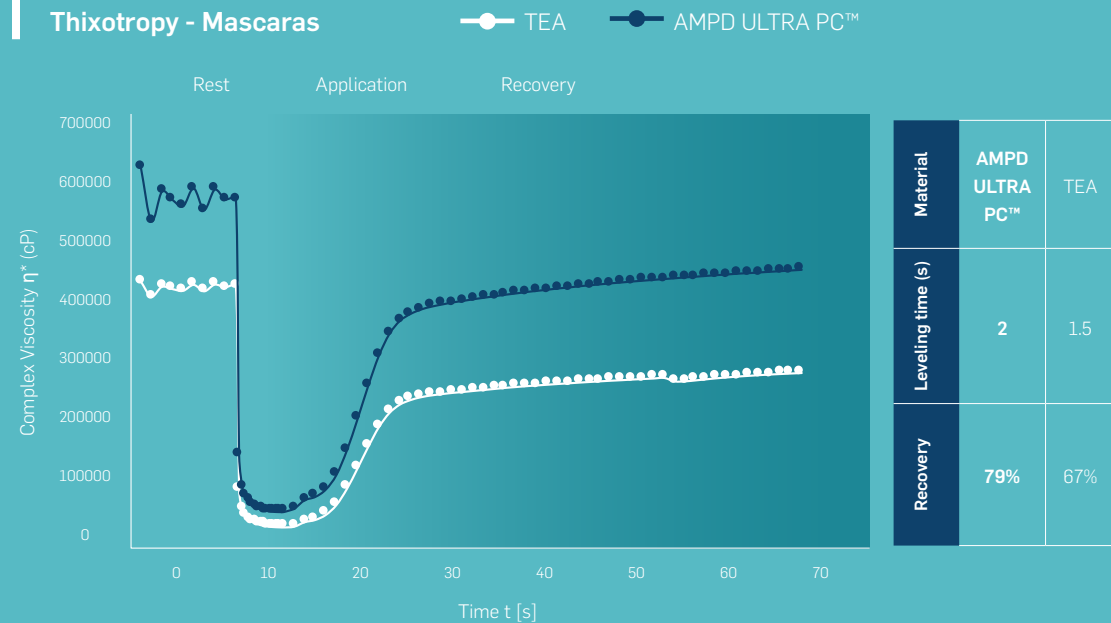
### Particle Size Distribution of Mascara Formulations with Iron Oxide

GRAPH: Particle size analysis of mascaras - bimodal distribution of AMPD ULTRA PC™ product promotes more efficient packing of pigments.



In mascaras, AMPD ULTRA PC™ works synergistically with the fatty acid emulsifier (stearic acid) to provide superior viscosity control, application performance and thixotropy that allows for greater volume and shine on the lash.

### Thixotropy - Mascaras



Merging the two benefits for increased pigment dispersion and improved thixotropic profile creates products that deposit a superior film and color performance on lash.

TEA



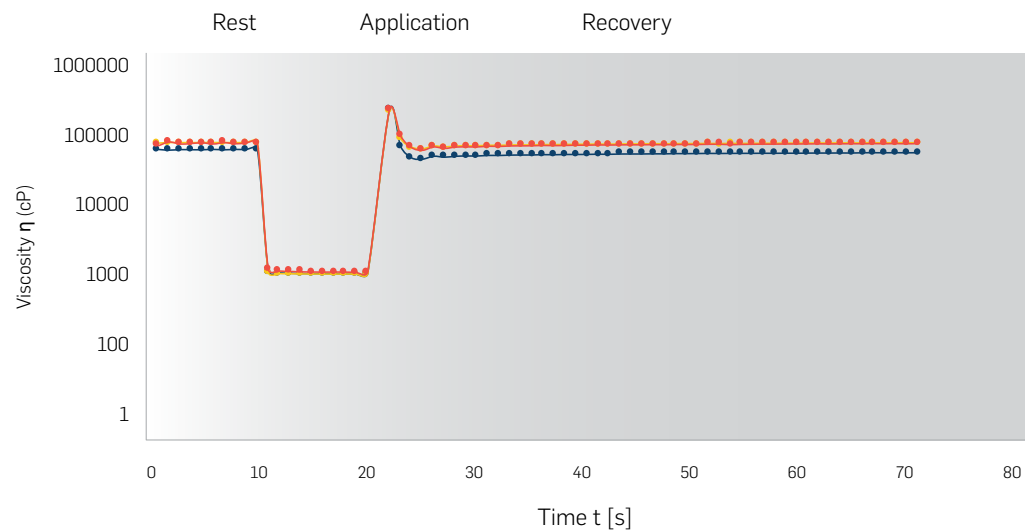
AMPD ULTRA PC™



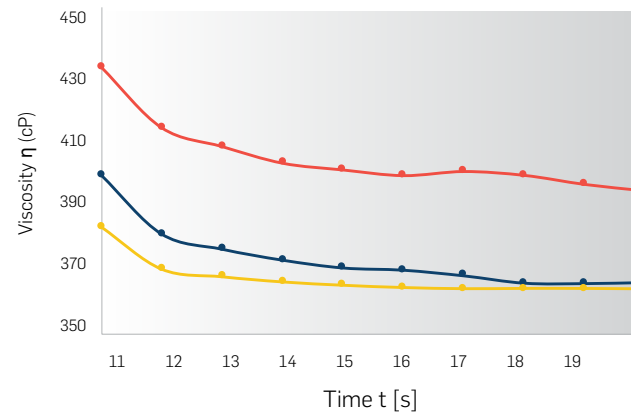


BB creams and foundations also benefit from the synergistic electrostatic effects between the amino alcohol, carbomers/anionic film formers, and fatty acids leading to better application properties and improved film dispersions.

**Thixotropy of BB Creams**      ● TEA      ● TRIS AMINO™ ULTRA PC      ● NaOH



**Viscosity During Application**



| Material             | Recovery |
|----------------------|----------|
| TRIS AMINO™ ULTRA PC | 99%      |
| TEA                  | 90%      |
| NaOH                 | 99%      |

**Pigment Dispersion in BB Cream Films (40x)**



NaOH



TRIS AMINO™ ULTRA PC

## Living**COLOR**

### BB/CC Cream

Lightweight, multifunctional skin perfector that hydrates, color corrects and evens skin tone.

Formulated with **TRIS AMINO™ ULTRA PC** for excellent synergistic effect with stearic acid and carbomer, improved pigment dispersion in film, and superior application on skin.

#### PROCEDURE: (hot process)

1. Combine ingredients 1-4 of phase A1, in order and begin heating to 85°C (Note: sift in polymer slowly once temp. > 50°C).
2. In a separate vessel, combine ingredients of phase A2 and begin heating to 85°C (Note: sift in polymer slowly).
3. In a separate vessel, combine ingredients of phase B.
4. Add phase C to phase B and stir until well dispersed, begin heating to 85°C.
5. Add phase D to phases C/B and stir at 85°C to melt waxes.
6. Slowly add phase E to phases B/C/D and homogenize well to disperse.

7. Once dispersed and all vessels at temperature, combine A1 and A2 and homogenize. Once homogenous, add in oil phase (B/C/D/E) under homogenizer.

8. Homogenize until dispersed then remove heat and transfer to paddle stir.

9. Slowly stir while cooling and when temperature is below 50°C add phase F and q.s. for any water loss.

10. Stir slowly for 10 min.

#### COMMENTS:

**Viscosity:** 136000 cP (Brookfield DV-II +, SC4-S27, 1.5 rpm, 1 min., 22°C)

**pH** = 6.5

**Batch:** BGCAC18-01

| Phase | Trade Name | INCI  | Supplier  | Wt%                          |       |
|-------|------------|---|---|------------------------------|-------|
| A1    | 1          | Water   | Water (Aqua)  | -                            | 32.86 |
|       | 2          | Ethylenediaminetetraacetic Acid Disodium Salt Dihydrate | Disodium EDTA   | Research Products Int. Corp. | 0.10  |
|       | 3          | Glycerin  | Glycerin  | Making Cosmetics             | 3.00  |
|       | 4          | TRIS AMINO™ ULTRA PC                                    | Tromethamine  | ANGUS                        | 0.80  |
|       | 6          | Acrylates Copolymer                                     | Acrylates/Octylacrylamide Copolymer   | Making Cosmetics             | 2.00  |
| A2    | 7          | Water   | Water (Aqua)  | -                            | 25.00 |
|       | 8          | Carbopol® Ultrez 30 Polymer                             | Carbomer  | Lubrizol                     | 0.50  |
| B     | 9          | C12-15 Alkyl Benzoate                                   | C12-15 Alkyl Benzoate   | Making Cosmetics             | 3.00  |
|       | 10         | Capric/Caprylic Triglycerides                           | Caprylic/Capric Triglyceride  | The Personal Formulator      | 12.00 |
|       | 11         | OM-Cinnamate  | Ethylhexyl Methoxycinnamate   | Making Cosmetics             | 3.50  |
|       | 12         | Sorbitan Oleate   | Sorbitan Oleate   | Making Cosmetics             | 1.00  |
| C     | 13         | Iron Oxide Red, Liquid                                  | CI 77491 (and) Octyldodecanol   | Making Cosmetics             | 0.27  |
|       | 14         | Iron Oxide Yellow, Liquid                               | CI 77492 (and) Octyldodecanol (and) Stearic Acid (and) Magnesium Hydroxide (and) Aluminum Hydroxide (and) Sorbitan Oleate | Making Cosmetics             | 0.87  |
| D     | 15         | Iron Oxide Black, Liquid                                | CI 77499 (and) Octyldodecanol   | Making Cosmetics             | 0.10  |
|       | 16         | Stearic Acid  | Stearic Acid  | Making Cosmetics             | 1.00  |
|       | 17         | CreamMaker® Blend                                       | Glyceryl Stearate (and) PEG-100 Stearate  | Making Cosmetics             | 1.00  |
| E     | 18         | CreamMaker® CA-20                                       | Cetearyl Alcohol (and) Ceteareth-20   | Making Cosmetics             | 1.00  |
|       | 19         | Titanium Dioxide  | Titanium Dioxide  | Making Cosmetics             | 6.00  |
| F     | 20         | Dimethicone-500   | Dimethicone   | Making Cosmetics             | 5.00  |
|       | 21         | Phenoxyethanol SA                                       | Phenoxyethanol (and) Sorbic Acid (and) Caprylyl Glycol  | Making Cosmetics             | 1.00  |

## TraceELEMENTS

### Eyeliner

Gentle, long-lasting liquid eyeliner for creating the right look with perfectly smooth lines.

Formulated with **AMPD ULTRA PC™** for efficient neutralization of polymer to provide improved rheology and application performance.

#### PROCEDURE: (hot process)

1. Combine ingredients of phase A under stirring.
2. Premix phase B and add into phase A under low shear until homogeneous.
3. Add phase C and mix slowly until homogeneous.

#### COMMENTS:

**Appearance:** High-viscosity emulsion

**pH** = 6.0-7.0

**Batch:** SPCAC18-01

| Phase | Trade Name | INCI                                      | Supplier   | Wt%           |       |
|-------|------------|---|--|---------------|-------|
| A     | 1          | Water                                     | Water (Aqua)   | -             | 39.35 |
|       | 2          | Versene® Na2 Crystals                     | Disodium EDTA  | Dow           | 0.05  |
|       | 3          | Dow Corning® FA 4002 ID Silicone Acrylate | Isodecane (and) Acrylates/<br>Polytrimethylsiloxy methacrylate Copolymer | Dow           | 10    |
|       | 4          | Tinovis® GTC-UP                           | Acrylates/Beheneth-25 Methacrylate Copolymer                             | BASF          | 1.5   |
| B     | 5          | Water                                     | Water (Aqua)   | -             | 20    |
|       | 6          | AMPD ULTRA PC™                            | Aminomethyl Propanediol  | ANGUS         | 0.15  |
| C     | 7          | Maxxi Micapearl Blue CL                   | Mica   | Maxxi Química | 10.5  |
|       | 8          | Maxxi Synpearl Sparkle Deep Blue          | Mica   | Maxxi Química | 2.25  |
|       | 9          | Maxxi Micapearl Magic Blue                | Mica   | Maxxi Química | 10.8  |
|       | 10         | Maxxi Micapearl Blue Carbon               | Mica   | Maxxi Química | 5.4   |

# StreetLIGHT

## Highlighter

Gentle, easy-to-apply highlighter that gives skin a luminous, radiant look.

Formulated with **TRIS AMINO™ ULTRA PC** for efficient neutralization of polymer providing optimal glitter dispersion and excellent color stability.

**PROCEDURE:** (process with propeller - heidolph device)

1. Mix phase A with a propeller for 2 min. at 200 rpm.
2. Mix phase B and add in phase A for 5 min. at 350 rpm.
3. Add phase C for 5 min. at 400 rpm.
3. In annex beaker, mix phase D under magnetic stirring.  
Add phase D in (A+B+C) and homogenize for 5 min. at 400 rpm.
5. Add neutralizer phase E (adjust pH at 6,5-7) for 5 min. at 400 rpm.
6. Add phase F with stirring until homogenized.

**COMMENTS:**

**Viscosity:** 11740 cP (Brookfield RVDV-II+ Pro, Spindle 4, 10 rpm, 1 min.)

**pH** = 6.5

**Batch:** PARCAC18-01

| Phase | Trade Name | INCI                                | Supplier   | Wt%             |       |
|-------|------------|-------------------------------------|--|-----------------|-------|
| A     | 1          | Water                               | Water (Aqua)   | -               | 77.09 |
|       | 2          | Microcare PHDG                      | Phenoxyethanol (and) Caprylyl Glycol (and) Decylene Glycol           | THOR            | 1.00  |
| B     | 3          | Xanthan Gum FFCSP-PC                | Xanthan Gum  | Jungbunzlauer   | 0.30  |
|       | 4          | Glycerine Vegetale 99,7%            | Glycerin   | Univar          | 5.00  |
| C     | 5          | ACULYN™ 28 Polymer                  | Acrylates / Beheneth-25 Methacrylate Copolymer                       | Dow             | 2.00  |
| D     | 6          | DOWSIL™ FZ 3196                     | Caprylyl Methicone   | Dow             | 5.00  |
|       | 7          | DOWSIL™ FC-5002 ID Resin Gum        | Isododecane (and) Trimethylsiloxy silicate/dimethiconol Crosspolymer | Dow             | 5.00  |
| E     | 8          | TRIS AMINO™ ULTRA PC (20% in Water) | Tromethamine   | ANGUS           | 0.61  |
| F     | 9          | Imercare SheerSilk                  | Talc   | Imerys          | 1.00  |
|       | 10         | Fiesta Shimmer White                | Synthetic Fluorhlogopite (and) Titanium Dioxide                      | Sandream Impact | 3.00  |



## FullEFFECT

### Lip Tint

Multi-use lip tint that builds,  
nourishes and repairs.

Formulated with **TRIS AMINO™ ULTRA PC** for optimal neutralization of acrylate co-polymer, and a mild, gentle profile for use in sensitive skin areas.

#### PROCEDURE:

1. Combine phase A, B and C in order with mixing between each addition. Ensure polymer is well dispersed.
2. Add neutraliser to phase A/B/C under medium shear.
3. Add fragrance and mix until uniform.

#### COMMENTS:

**Viscosity:** 4400 cP (Brookfield RV, Spindle 5, 50 rpm, 1 min., 25°C)

**pH** = 6.8-7.2

**Batch:** SGCAC18-01

| Phase | Trade Name | INCI                                | Supplier                                      | Wt%               |       |
|-------|------------|-------------------------------------|---|-------------------|-------|
| A     | 1          | Water                               | Water (Aqua)                                  | -                 | 75.42 |
|       | 2          | Glycerin                            | Glycerin                                      | Fisher Scientific | 6.00  |
|       | 3          | Propylene Glycol                    | Propylene Glycol                              | Chempure          | 4.00  |
|       | 4          | Hydrolite® 6                        | 1,2-Hexanediol                                | Symrise           | 1.50  |
|       | 5          | Disodium EDTA                       | Disodium EDTA                                 | Chempure          | 0.20  |
| B     | 6          | Novethix™ L-10 Polymer              | Acrylates/ Beheneth-25 Methacrylate Copolymer | Lubrizol          | 2.50  |
| C     | 7          | PONCEAU 4R 80% E124-C (4% solution) | CI16255                                       | Sensient          | 8.00  |
| D     | 8          | TRIS AMINO™ ULTRA PC (20% solution) | Tromethamine                                  | ANGUS             | 2.08  |
| E     | 9          | Fragrance                           | Fragrance                                     | Bake King         | 0.30  |

## MonoCHROME

### Mascara

Long-lasting, water-resistant dark mascara for easy application, deep color and elegant lash curl.

Formulated with **AMPD ULTRA PC™** for high-efficiency neutralization of acrylate co-polymer and stearic acid to provide improved pigment dispersion and stable emulsion.

#### PROCEDURE: (hot process)

1. Combine ingredients of phase A and begin heating to melt waxes (85-90°C).
2. Slowly add phase B ingredients to phase A and mix under turrax for 30 min.
3. Combine ingredients of phase C (in order) and begin heating to 85°C. (Note: sift polymers slowly into solution).
4. When all phases are at temperature, slowly combine phase C to A/B and homogenize until free-flowing.
5. Remove heat source and allow to cool with slow mixing.

6. At 55°C, add phase E and q.s. with water for any loss during heating. Stir slowly for 10 min. after q.s.

#### COMMENTS:

**Viscosity:** 160000 cP (Brookfield, RVDV-II+, SC4-27, 1 min., 22°C, 0.5 rpm)

**pH** = 7.1-7.2

**Batch:** BGCAC18-02

| Phase | Trade Name | INCI                 | Supplier   | Wt%              |       |
|-------|------------|----------------------|--|------------------|-------|
| A     | 1          | Carnauba Wax         | Copernicia Cerifera (Carnauba) Wax                     | Making Cosmetics | 4.00  |
|       | 2          | Candelilla Wax       | Euphorbia Cerifera (Candelilla) Wax                    | Making Cosmetics | 4.00  |
|       | 3          | Bees Wax             | Cera Alba (bees wax)                                   | Making Cosmetics | 4.00  |
|       | 4          | Ozokerite Wax        | Ozokerite  | Making Cosmetics | 2.00  |
|       | 5          | Stearic Acid         | Stearic Acid   | Making Cosmetics | 3.00  |
|       | 6          | Glyceryl Stearate SE | Glyceryl Stearate SE                                   | Making Cosmetics | 2.00  |
| B     | 7          | Iron Oxide Black     | CI 77499   | Making Cosmetics | 8.50  |
|       | 8          | Carbon Black         | CI 77266   | Making Cosmetics | 1.50  |
|       | 9          | Water                | Water (Aqua)   | -                | 62.40 |
| C     | 10         | Propylene Glycol     | Propylene Glycol                                       | Making Cosmetics | 3.00  |
|       | 11         | AMPD ULTRA PC™       | Aminomethyl Propanediol                                | ANGUS            | 0.60  |
|       | 12         | PVP                  | PVP  | Making Cosmetics | 2.00  |
| D     | 13         | Acrylates Copolymer  | Acrylates/Octylacrylamide Copolymer                    | Making Cosmetics | 2.00  |
|       | 14         | Phenoxyethanol SA    | Phenoxyethanol (and) Sorbic Acid (and) Caprylyl Glycol | Making Cosmetics | 1.00  |