
Technical Information

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Jordapon® Grades

® = Registered trademark of BASF SE **For the Personal Care Industry**

**Mild, anionic surfactants for the production of Syndet Bars,
Combo Bars, Liquid Soaps and Shampoos.**



BASF
The Chemical Company

**Personal Care
Ingredients**

Product range

| PRD | Product | INCI Name | Physical Form | CAS |
|----------|--------------------|--|----------------------|------------------------|
| 30246420 | Jordapon CI Prill | Sodium Cocoyl Isethionate | Granular | 61789-32-0 |
| 30089337 | Jordapon CI Powder | Sodium Cocoyl Isethionate | Powder | 61789-32-0 |
| 30093580 | Jordapon CI 65 | Sodium Cocoyl Isethionate (and) Stearic Acid | Flake | 61789-32-0 and 57-11-4 |
| 30088538 | Jordapon ACI 30G | Ammonium Cocoyl Isethionate | Liquid, 30% in water | PMN (P-03-1315) |

Description

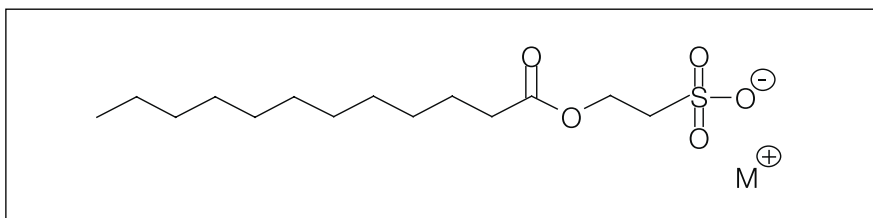
Jordapon CI Prill is a low-dusting granular form, and Jordapon CI Powder is a fine particle-size, flowable powder. Jordapon CI 65 is a blend of Sodium Cocoyl Isethionate with Stearic Acid. They are nondusting, small, flowable flakes which are easily handled. Jordapon ACI 30G, Ammonium Cocoyl Isethionate, is a clear, slightly yellow, 30% solids in aqueous solution.

Chemical description

CI Prill und CI Powder: Sodium Cocoyl Isethionate
 ACI 30 G: Ammonium Cocoyl Isethionate
 CI 65 Flake: Sodium Cocoyl Isethionate (and) Stearic Acid

Structural formula

Cocoyl Isethionate



M⁺ = Na⁺ (Jordapon CI)
 = NH₄⁺ (Jordapon ACI 30 CG)

where "Cocoyl" is a mixture of alkyl chain lengths with the following typical distribution:

| | |
|----------------|------------|
| C8/10 | 13% |
| C12 | 50 |
| C14 | 18 |
| C16 | 8 |
| >C18 | 11 |

All the Jordapon surfactant products are environmentally responsible compounds which are based on purified fatty acids derived from natural coconut oil. The Flake forms contain vegetable-based stearic acid. Our manufacturing process produces no hazardous or environmentally threatening by-products, and Jordapon surfactants themselves are completely biodegradable.

Specification

See separate documents "Standard Specification (not for regulatory purposes)" available via BASF's WorldAccount: <https://worldaccount.basf.com> (registered access).

Performance properties**Foam Height (Ross-Miles, 0.2% solution, 50°C)**

| Product | | Water hardness | | |
|-------------|---------|----------------|---------|---------|
| | | 0 ppm | 150 ppm | 300 ppm |
| Sodium CI | Initial | 220 mm | 240 | 238 |
| | 5 min. | 220 mm | 240 | 238 |
| Ammonium CI | Initial | 235 | 258 | 245 |
| | 5 min. | 235 | 258 | 245 |

Both Sodium and Ammonium Cocoyl Isethionate deliver high, stable foam, even in hard water.

Surface Tension, Dynes/cm, 25°C

| | 0.01% | 0.1% |
|-------------|--------------|-------------|
| Sodium Cl | 33 | 27 |
| Ammonium Cl | 32 | 32 |

Both are highly surface active and effective wetting agents.

Critical Micelle Concentration, 25°C

Sodium Cl 0.01%
Ammonium Cl 0.008%

The low cmc indicates that both are effective at low concentrations.

Features**All Jordapon Cocoyl Isethionates:**

are mild to skin and eyes
are excellent foamers in hard or soft water
impart a soft afterfeel to skin
have a mild odor
are based upon fatty acids from natural, renewable coconut oil
are completely biodegradable.

Sodium Cocoyl Isethionate:

has limited water solubility
is available in high-active powder, high-active granular, or flake forms.

Ammonium Cocoyl Isethionate:

is highly water-soluble
is sold as a 30% liquid in water.

Application

Sodium Cocoyl Isethionate has been used for decades in mild, high-foaming personal cleansing products, where it provides gentle cleansing and a soft skin afterfeel which consumer prefer. Its predominant commercial use has been in syndet bar formulations, but in recent years it has been used increasingly in other product forms as well, notably in combo bars, in foaming facial washes and body washes.

BASF offers several versions of Sodium Cocoyl Isethionate, each designed to answer specific market or customer needs.

Jordapon CI Powder is very high purity powder form, with a large specific surface area, offering rapid dispersing/dissolution into formulations. Jordapon CI Prill is the same high purity, in low-dusting granular form. Jordapon CI Powder and CI Prill are recommended for systems where low levels of fatty acid are needed; for example, shampoos, bath and showers gels, and liquid soaps.

Jordapon CI 65 is a flake consisting of Sodium Cocoyl Isethionate uniformly dispersed in Stearic Acid. This results in a low-dusting, easily handled form which is ideal for use in formulations which would include stearic acid, such as syndet bars, combo bars, facial cleansing products, and aerosol shave creams.

Jordapon ACI 30G Ammonium Cocoyl Isethionate has many of the same performance properties as Sodium Cocoyl Isethionate, including the hallmarks of mildness, high foaming, lubricious lather, and soft skin afterfeel. The significant difference is that Jordapon ACI 30G is highly water soluble, which means that clear liquid products can readily be formulated. Jordapon ACI 30G is sold as an aqueous solution of 30% solids.

Stability and storage

The shelf life of Jordapon CI Prill, CI Powder and CI 65 grades is 2 years, and for Jordapon ACI 30 G it is 1 year when stored in original, unopened containers.

Formulary**Liquid soap****No. 08/00590**

| | % | Ingredients | Supplier | INCI name |
|---|------|--------------------|----------|---------------------------|
| A | 74.8 | Deionized Water | | Aqua |
| | 3.0 | Jordapon® CI Prill | (1) | Sodium Cocoyl Isethionate |
| | 13.0 | Standapol® A | (27) | Ammonium Lauryl Sulfate |
| | 0.5 | Glycol Stearate | (13) | Glycol Stearate |
| | 0.1 | Edeta® BD | (1) | EDTA |
| | q.s. | Preservative | | |
| B | 6.0 | Tego Betain L7 | (44) | Cocamidopropyl Betaine |
| | 2.5 | Comperlan® KD | (27) | Cocamide DEA |
| C | q.s. | Perfume | | Fragrance |
| | 0.1 | Citric acid | (29) | Citric Acid |

Production: Mix and heat part A ingredients to 65°C. When uniform, add part B. Cool the batch to 40°C, add Fragrance and adjust pH. Adjust viscosity with Sodium Chloride. The Glycol Stearate can be omitted if a clear product is desired.

Properties: Lubricious lather and soft skin after-feel.
pH value: 6.0-6.5
Viscosity: 2500-3500 cPs (with 0.6-0.9% NaCl)

Appearance: Clear liquid

Luxury Liquid soap**No. 08/00591**

| | % | Ingredients | Supplier | INCI name |
|---|------|--------------------|----------|------------------------------------|
| A | 56.2 | Deionized Water | | Aqua |
| | 0.1 | Polyquaterium-10 | (3) | Polyquaterium-10 |
| B | 0.2 | Edeta® BD | (1) | EDTA |
| | q.s. | Preservative | | |
| | 4.3 | Avanel® S 150 CG | (1) | Sodium C12-C15-Pareth-15 Sulfonate |
| | 12.8 | Tego Betain L7 | (44) | Cocamidopropyl Betaine |
| | 23.3 | Jordapon® ACI 30 G | (1) | Ammonium Cocoyl Isethionate |
| C | 2.0 | | | Soyamide DEA |
| | q.s. | Perfume | | Fragrance |
| | 0.1 | Citric acid | (20) | Citric Acid |
| | 1.0 | Ammonium chloride | | Ammonium Chloride |

Production: Mix part A at room temperature for 20 minutes until dissolved. Add part B ingredients in order, and mix until clear and uniform. Add Soyamide DEA and Fragrance, mixing until clear. Adjust pH and viscosity.

Properties: Clear formula offers excellent flash foam, and provides silky feeling lather and a soft skin afterfeel. Inherent mildness is enhanced by Avanel S 150 CG counter irritant surfactant. Anti-microbial actives can be added for home or commercial hand wash products.

pH value: 6.3-6.7
Viscosity: 4,000-6,000 cPs

Appearance: Clear, straw-colored liquid.

Gel Shampoo**No. 08/00592**

| | % | Ingredients | Supplier | INCI name |
|---|------|--------------------|----------|-----------------------------|
| A | 44.6 | Deionized Water | | Aqua |
| | 31.0 | Standapol® EA 3 | (27) | Ammonium Laureth Sulfate |
| | 15.4 | Jordapon® ACI 30 G | (1) | Ammonium Cocoyl Isethionate |
| | 0.2 | Edeta® BD | (1) | EDTA |
| | q.s. | Preservative | | |
| B | 5.8 | Tego Betain L7 | (44) | Cocamidopropyl Betaine |
| | 1.5 | Comperlan® KD | (27) | Cocamide DEA |
| | 1.0 | Emery 655 | (27) | Myristic Acid |
| | q.s. | Perfume | | Fragrance |
| C | 0.1 | Citric acid | (20) | Citric Acid |
| | 0.4 | Ammonium chloride | | Ammonium Chloride |

Production: Mix part A ingredients in main vessel until uniform. In separate vessel, premix part B, heating to 40°C if necessary to dissolve Myristic Acid. Add B to A, mixing continuously. Adjust pH and viscosity with part C ingredients.

Properties: High viscosity shampoo suitable for tube packaging.

pH value: 6.3-6.7
Viscosity: 18,000-22,000 cPs

Appearance: Clear, pale yellow viscous liquid.

Soap with Jordapon® CI Prill**No. 52/00104**

| | % | Ingredients | Supplier | INCI name |
|---|-------|--------------------|----------|---|
| A | 15.00 | Lanette O | (27) | Cetearyl Alcohol |
| | 3.00 | Stepan PEG 6000 DS | (149) | PEG-150 Distearate |
| | 5.00 | Stearic acid | (27) | Stearic Acid |
| B | 16.00 | Deionized Water | | Aqua |
| | 11.00 | Tego Betain L 7 | (44) | Cocamidopropyl Betaine |
| | 30.00 | Jordapon CI Prill | (1) | Sodium Cocoyl Isethionate |
| | 20.00 | Zetesap 5165 | (159) | Disodium Lauryl Sulfosuccinate, Sodium Cocoyl Isethionate, Cetearyl Alcohol, Triticum Volgare (Wheat) Starch, Glyceryl Stearate, Paraffin, Titanium Dioxide |
| | q.s. | Perfume | | Fragrance |

Production: Melt on components of phase A at 80°C. Weight in components of phase B in phase A and stir until homogeneous. Stir phase into phase A + B. Cast the mixture into a form.

Toxicity

An investigation of raw materials gave no indication of harmful effects to health if the substance is used for the stated applications and concentrations. Due to the large variety of applications and possible combinations with other products, users are responsible for their own safety assessment of their products.

Safety Data Sheets

Safety Data Sheets are available.

Suppliers

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3. **Amerchol Corporation**
136 Talmadge Road, NJ 08818 Edison, USA
Tel.: +1(908) 248-6000
Fax: +1(908) 287-4186
www.amerchol.com
13. **Croda Chemicals Europe Ltd.**
Cowick Hall, Snaith; DN 14 9AA Goole, East Yorkshire; Great Britain
Tel.: +44(1405) 860551
Fax: +44(1405) 860205
www.croda.co.uk
20. **Merck KGaA**
Frankfurter Straße 250, 64293 Darmstadt, Germany
Tel.: +49(6151) 72-7869
Fax: +49(6151) 72-8333
www.merck.com
27. **Cognis Deutschland GmbH – Care Chemicals**
Henkelstraße 67, 40191 Düsseldorf-Holthausen, Germany
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Fax: +49(211) 798-2016
www.cognis.com
44. **Evonik Goldschmidt GmbH**
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139. **The Procter & Gamble Company**
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