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## 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.**

  
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**

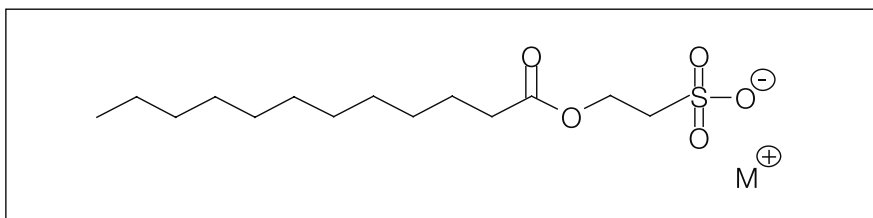
Jordapon CI Prill is a low-dusting granular form, and Jordapon CI Powder is a fine particle-size, flowable powder. Jordapon CI 65 is a blend of Sodium Cocoyl Isethionate with Stearic Acid. They are nondusting, small, flowable flakes which are easily handled. Jordapon ACI 30G, Ammonium Cocoyl Isethionate, 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<sup>+</sup> = Na<sup>+</sup> (Jordapon CI)  
 = NH<sup>4+</sup> (Jordapon ACI 30 CG)

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

<b>C8/10</b>	<b>13%</b>
<b>C12</b>	<b>50</b>
<b>C14</b>	<b>18</b>
<b>C16</b>	<b>8</b>
<b>&gt;C18</b>	<b>11</b>

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**

	<b>0.01%</b>	<b>0.1%</b>
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**

1. **BASF SE**  
67056 Ludwigshafen, Germany  
Tel.: +49(621) 60-0  
Fax: +49(621) 60-42525  
www.basf.com
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  
Tel.: +49(211) 7940-2289  
Fax: +49(211) 798-2016  
www.cognis.com
44. **Evonik Goldschmidt GmbH**  
Goldschmidtstraße 100, 45127 Essen, Germany  
Tel.: +49(201) 173-01  
Fax: +49(201) 173-3000  
www.evonik.com
86. **Clariant Corporation,  
Specialty Products Group**  
4000 Monroe Road, NC 28205 Charlotte, USA  
Tel.: +1(704) 331-7000  
+1(800) 631-8077  
Fax: +1(704) 377-1064
139. **The Procter & Gamble Company**  
11530 Reed Hartman Highway, OH 45241 Cincinnati, USA  
Tel.: +1(513) 562-1100  
+1(800) 477-8899  
Fax: +1(513) 626-3145  
www.pg.com

149. **Stepan Company**  
22 West Frontage Road, IL 60093 Northfield, USA  
Tel.: +1(847) 446-7500  
Fax: +1(847) 501-2100  
www.stepan.com
159. **Zschimmer & Schwarz GmbH & Co.**  
Max-Schwarz-Str. 3-5, 56112 Lahnstein/Rhein, Germany  
Tel.: +49(2621) 12-0  
Fax: +49(2621) 12-407  
www.zschimmer-schwarz.de

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