

FTC KOREA PRODUCT

Preservatives
Emollient esters
Emulsion thickeners
Carbojel



A WORLD LEADER WITH CUSTOMER-ORIENTED SERVICE AND INNOVATION ENGINE

We are growing through constant R&D works and communication with customers.



Company FTC KOREA CO., LTD.



Production Capacity 10,000 Tons/Year



CEO YOUNG HEUN MA



Established August 15th, 1999



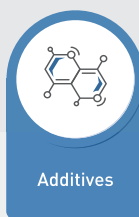
Technical Certification



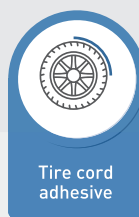
Product Range



Catalysts



Additives



Tire cord
adhesive



Preservatives

Product Introduction



01 Preservatives

FPD-500 / FHD-600 / FOD-800
FEH-1100 / FPE-900



02 Emollient esters

CEH-100F / IOP-100F / GEH-300F
PEEH-400F / PEIS-400F



03 Emulsion thickeners

Viscocare HA90F
Viscocare P400F



04 Carbojel

CG / CG-SF / MS / MS-SF
DV / DV-SF / OIL / OIL-SF

Preservatives

Core competitiveness

Technical Overview and Characteristics



Technology Overview

To use 1,2-Pentanediol, 1,2-Hexanediol, Caprylyl Glycol, Ethylhexylglycerin, Phenoxy ethanol in cosmetics?

- Removing impurities and specific odors is essential
- Removing process combined with chemical engineering technology requires the removal of impurities and specific odors.

Results of 5% hot water melting test compared to third-party products : Clear difference in odorless quality of our products can be checked.



Characteristic Of Technology

The technology to temporarily erase of natural odor of raw materials is meaningless.

- Unique odor occurs again in the manufacturing process due to mixing with other raw materials or changes in the time being.
- As a result, there is a risk of lowering the quality of finished cosmetics.

Therefore, making odorless products such as water requires tricky process technology, especially commercial production technology characteristics that maintain uniformity of quality at the same time as economic feasibility.

Core Refining Technology

Leading the moisturizing market with core refining technology of Preservatives



Product lists

Product	INCI	Purity	Water	Cas No.	MOQ	Recommend quantity	Appearance
FPD-500	1,2-Pentanediol	≥99.5%	0.5%max	5343-92-0	15kg/can 190kg steel drum	1.0% - 2.5%	Colorless transparent liquid
FHD-600	1,2-Hexanediol	≥99.5%	0.5%max	6920-22-5	15kg/can 190kg steel drum	2.0% - 2.5%	Odorless transparent liquid
FOD-800	Caprylyl Glycol	≥99.0%	0.5%max	1117-86-8	20kg/PE Pail Drum 180kg steel drum	0.5% - 1%	White solid(<36°) or a transparent liquid
FEH-1100	Ethylhexylglycerin	≥99.0%	0.5%max	70445-33-9	15kg/can 200kg steel drum	0.3% - 1.0%	Transparent liquid
FPE-900	Phenoxy Ethanol	≥99.8%	0.1%max	122-99-6	20kg/PE Pail drum 210kg/ steel drum	0.3% - 1.0%	Colorless transparent liquid

Toxicity Of Preservatives

Category	1,2-Pentanediol	1,2-Hexanediol	Caprylyl Glycol	Ethylhexylglycerin	Phenoxy Ethanol
Skin sensitization	Not sensitizing Guinea pig OECD Guideline 406 (Skin Sensitization)	Not sensitizing Mouse OECD Guideline 429 (Skin Sensitization: Local Lymph Node Assay)	Not sensitizing Mouse OECD Guideline 429 (Skin Sensitization: Local Lymph Node Assay)	Not sensitizing Guinea pig OECD Guideline 406 (Skin Sensitization)	Not sensitizing Guinea pig OECD Guideline 406 (Skin Sensitization)
Skin Irritation	Not irritating Rabbit OECD Guideline 404	Not irritating Rabbit OECD Guideline 404	Not irritating Rabbit Guide to Quasi-drug and Cosmetic Regulations in Japan	Not irritating Rabbit OECD Guideline 404	Not irritating Rabbit OECD Guideline 404
Eye Irritation	Irritating Rabbit OECD GUIDELINE 405	Irritating Albino Rabbits, E 1055-85, ASTM	Irritating Rabbit EU Method B.5 (Acute Toxicity: Eye Irritation / Corrosion)	Irritating Rabbit OECD GUIDELINE 405	Category 2 (irritating to eyes) based on GHS criteria OECD Guideline 405
Acute Toxicity LD50(Oral)	5000 mg/kg for both males and females rat (OECD Guideline 401)	>5000 mg/kg for both males and females rat (OECD Guideline 401)	>2000 mg/kg for both males and females rat (OECD Guideline 401)	>2000 mg/kg for both males and females rat (OECD Guideline 401)	2740 mg/kg for both males and females rat (OECD Guideline 401)

- REF 1 ECHA, Biocidal Products Committee (BPC)
2 The SCCS adopted this opinion at its 2nd plenary meeting on 6 October 2016



· Product information

Chemical name / INCI	1,2-PENTANEDIOL
CAS No.	5343-92-0
EINECS No.	226-285-3
Chemical Formula	C ₅ H ₁₂ O ₂
Molecular Weight	104.15 g/mol
Chemical Structure	<chem>CCCC(O)O</chem>

· Product specification

Appearance	Colorless transparent liquid
Purity(by GC)	≥99.5%
Water(by Karl-fisher)	< 0.5%
Color	APHA10 max
Specific gravity(20°C)	0.970-0.974
Formaldehyde	Not detected

· Details

- Colorless transparent liquid
- Applied to all Cosmetics
- Effective as a moisturizer with broad range of anti-microbial activity as a preservative.
- Can be formulated without preservatives, reducing allergies caused by preservatives
- 1,2-pentanediol is an important intermediate for the fungicide propiconazole.

- Stable at a wide range of PH and high temperatures.
- Excellent stability and low toxicity
- Dissolve the insoluble active ingredient.
- Applied to skin creams, eye creams, skin care waters, baby care products, and sun care products.
- MOQ: 15KG/ Can, 190 KG steel drum
- Recommended quantity : 1.0% - 2.5%

* Please refer to the COA and MSDS for more details.

· FPD-500 Packing



MOQ : 15kg
Weight(can) : 1.04kg
Material : Coating steel can



Pallet 1st tier : 16ea (240kg)
Cans can be loaded up to 3rd tier





· Product information

Chemical name / INCI	1,2-HEXANEDIOL
CAS No.	6920-22-5
EINECS No.	230-029-6
Chemical Formula	C ₆ H ₁₄ O ₂
Molecular Weight	118.17 g/mol
Chemical Structure	

· Product specification

Appearance	Odorless transparent liquid
Purity(by GC)	≥99.5%
Water(by Karl-fisher)	< 0.5%
Refractive index(n ₂₀ /D)	1.437-1.443
Specific gravity(20°C)	0.946-0.956
Formaldehyde	Not detected

· Details

- Odorless transparent liquid
- Applied to all Cosmetics
- EWG Grade 1: Soft and safe raw materials.
- Moisturizing agents, emulsifiers and a wide range of antibacterial substances (excellent preservative)
- Harmoniously available with other cosmetic ingredients (no chemical collision)

- Stable at a wide range of PH and high temperatures.
- Excellent stability and low toxicity
- Much less irritation skin than other antibacterial substances (1,2-octanediol)
- MOQ: 15KG/ Can, 190 KG steel drum
- Recommended quantity : 2.0% - 2.5%

* Please refer to the COA and MSDS for more details.

· FHD-600 Packing



MOQ : 15kg
Weight(can) : 1.04kg
Material : Coating steel can



Pallet 1st tier : 16ea (240kg)
Cans can be loaded up to 3rd tier





· Product information

Chemical name / INCI	CAPRYRYL GLYCOL
CAS No.	1117-86-8
Chemical Formula	C ₈ H ₁₈ O ₂
Molecular Weight	146.23 g/mol
Chemical Structure	

· Product specification

Appearance	White solid(<36°C) or a transparent liquid
Purity(by GC)	≥99.0%
Color(APHA, 40°C)	10 max
Melting point(°C)	36-38
Specific gravity(20°C)	0.946-0.956

· Details

- Moisturizing agents, wetting agents and excellent antibacterial functional substances
- a nearly odorless level of product compared to the competitive products
- a white solid (<36°C) or transparent liquid.
- EWG Grade 1: Soft and safe raw materials.
- Can be used with other cosmetics ingredients

- Wide range of pH (recommended range: 4.0 to 7.0) and stable at high temperatures
- Applied to all cosmetic products (recommend for wash off products)
- MOQ: 20KG/ Round PE drum, 180 KG steel drum
- Recommended Quantity: 0.5% to 1%

* Please refer to the COA and MSDS for more details.

· FOD-800 Packing



MOQ : 20kg
Weight(can) : 1.60kg
Material : Polyethylene



Pallet 1st tier : 9ea (180kg)





· Product information

Chemical name / INCI	ETHYLHEXYLGLYCERIN
CAS No.	70445-33-9
EINECS No.	408-080-2
Chemical Formula	C ₁₁ H ₂₄ O ₃
Molecular Weight	204.31 g/mol
Chemical Structure	

· Product specification

Appearance	Transparent liquid
Color	APHA 20 max.
Purity(by GC)	≥99.0%
Water(by Karl-fisher)	0.5% max
Refractive index(n ₂₀ /D)	1.449-1.453
Specific gravity(20°C)	0.940-0.960

· Details

- Use as a multi-functional cosmetics additive
 - Preservative Booster: Effects of increased antimicrobial forces on reduced use of other preservatives
 - Skin Conditioning: Moisturizing and Moisturizing Functions
 - Deodorization: Applying to deodorant products as an anaerobic bacterial growth inhibitor
 - EWG Grade 1: Soft and safe raw materials.
 - High quality of odorless products compared to the competition
 - Can be used with other cosmetics ingredients (no chemical collision)
 - Recommended combination for stable preservative: alcohol and glycol ex) 1,2-hexanediol, 1,2-octanediol, phenoxyethanol
 - > MOQ: 15KG/ cans, 200 KG steel drum
 - Recommended Quantity: 0.3% to 1.0%
- * Please refer to the COA and MSDS for more details.

· FEH-1100 Packing



MOQ : 15kg
Weight(can) : 1.04kg
Material : Coating steel can

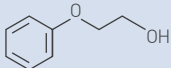


Pallet 1st tier : 16ea (240kg)
Cans can be loaded up to 3rd tier





· Product information

Chemical name / INCI	PHENOXYETHANOL
CAS No.	122-99-6
EINECS No	204-589-7
Chemical Formula	C ₈ H ₁₀ O ₂
Molecular Weight	138.16 g/mol
Chemical Structure	

· Product specification

Appearance	Transparent liquid
Color	APHA 5 max.
Acid number	0.01 max
Water(by Karl-fisher)	0.1% max
Distillation test(°C)	IP 240 min – DP 255 max
Specific gravity(20°C)	1.106-1.116
Phenol(ppm)	10 max

· Details

- As a preservative in personal care formulations.
- As an intermediate for bactericidal agents
- As an additive in paint industry
- As a perfume fixative
- As a solvent in printing inks and an emulsifier to help lower interfacial tension in oil-water emulsions
- As an ingredient in slurring compounds used to protect metals against

- corrosion
 - Can be used with other cosmetics ingredients (no chemical collision)
 - Recommended combination for stable preservative: alcohol and glycol ex) 1,2-hexanediol, 1,2-octanediol, ethylhexylglycerin
 - MOQ: 20KG/ PE Pail drum, 210KG/ drum
 - Recommended Quantity: 0.3% to 1.0%
- * Please refer to the COA and MSDS for more details.

· FPE-900 Packing



Mic Value of Preservatives

MIC value(%) of 1,2-alkandiol and other preservatives

Microorganism	Strain No.	1,2-Pentandiol	1,2-Hexanediol	Caprylyl Glycol	Ethylhexylglycerin	Phenoxy Ethanol	Methyl Paraben
Escherichia coli	ATCC 8739	3.2	1.25	0.63	0.2	0.6	0.1
Staphylococcus aureus	ATCC 6538	3.2	2.5	1.25	0.20	0.6	1.6
Pseudomonas aeruginosa	ATCC 9027	1.6	0.63	0.63	0.25	0.3	0.1
Candida albicans	ATCC 10231	1.6	1.25	0.31	0.63	0.30	0.02
Aspergillus niger	ATCC 16404	3.2	0.63	0.16	0.32	0.30	0.02

- 1 This data is for reference only.
- 2 Depending on the process conditions and mixed ingredients, you must perform an antibacterial efficacy test to determine the appropriate amount.

Hazardous Compounds

Hazardous compounds

Hazardous compound		1,2-Pentandiol	1,2-Hexanediol	Caprylyl Glycol	Ethylhexylglycerin	Phenoxy Ethanol
Hazardous compound	Formaldehyde (5ppm max)	N/D	N/D	N/D	N/A	N/A
	Phenol (10ppm max)	N/A	N/A	N/A	N/A	average 2ppm
	Diethylene glycol phenyl ether (25ppm max)	N/A	N/A	N/A	N/A	average 2ppm
	Ethylene oxide(2ppm max)	N/A	N/A	N/A	N/A	N/D
Heavy metal (20ppm max)	Total heavy metal content (20ppm max)	PASS	PASS	PASS	PASS	PASS
	Arsenic content (2ppm max)	PASS	PASS	PASS	PASS	PASS
26 Allergens EU Cosmetic directive 76/768/EEC		Not contain	Not contain	Not contain	Not contain	Not contain
Substances banned for use in cosmetics		Not contain	Not contain	Not contain	Not contain	Not contain
Proposition 65 listed chemicals		Not contain	Not contain	Not contain	Not contain	Not contain
Volatile organic compound		Not contain	Not contain	Not contain	Not contain	Not contain

N/D : Not detect

N/A : Not applicable(not expected from the process)

PASS : Expect to be suitable (will be test)

Emollient esters & Emulsion thickeners

EMOLLIENT ESTERS



What is an Emollient Ester?

- Mineral oil, vegetable oil, ester oil, silicone oil, etc. are fat-friendly substances that soften and polish the skin or hair. Sunscreen or oil in cosmetic prescriptions. Inorganic pigments, dispersants of pigments.



Application

- Skin care: Lotion, cream, cleansing oil
- Makeup: Use for all cosmetics such as foundation and lipstick, etc.
- Suncare



Advantages

- The structure is similar to that of oil present in the human body, which is friendly to the human body and does not oxidize easily, so the expiration date is long.
- The variety of products makes it easy to realize the desired touch of cosmetics.



Reasons for use in cosmetics

- Emollient blocks moisture evaporation from the skin surface.
- It makes the skin soft and soft and increases the gloss of the skin surface.

EMULSION THICKENERS



What is an Emulsion Thickener?

- It is a polymerized product by emulsifying acrylic monomers and oils into W/O types, and it is an emulsion-type liquid polymer.



Application

- Skin cream, Moisture preparations, Bath preparations, Skin, Hair, Sun care & Make-up, Baby care, Lubrication product, Cleansing lotion, Gels



Advantages

- Neutralization, dispersion, etc. are not required before use, and various oils can be emulsified by themselves.
- It is easy to use, and the viscosity can be easily adjusted by putting it in the order of the process when manufacturing cosmetics.
- Improves the oil stability of cosmetics.
- Various products can be manufactured depending on the type of monomer and can be manufactured with higher viscosity than other product lines.



Viscosity characteristics

- Emulsion thickeners can be increased in a wide range of PH regions (2-11), and are easily dispersed by converting from W/O to O/W type when dispersing water.
- It also has excellent incremental effects on various active ingredients (dihydroxy acetone, hydrogen peroxide).
- Excellent inflammation resistance even when various minerals (NaCl) are present.



Emollient esters & Emulsion thickeners

Product lists

Category	Product	INCI Name
Emollient Esters	CEH-100F	Cetyl ethylhexanoate
	IOP-100F	Ethylhexyl palmitate
	GEH-300F	Triethylhexanoin
	PEEH-400F	Pentaerythrityl Tetraethylhexanoate
	PEIS-400F	Pentaerythrityl Tetraisostearate
Emulsion Thickeners	Viscocare HA90F	HEA/AMPS Copolymer(Sepinov EMT10)
	Viscocare P400F	Polyacrylate 13(Sepiplus400)

Product specification | Emollient esters

Product	INCI	Color (APHA)	mg KOH/g	mg KOH/g	Cas No.	Packaging unit	Application	Appearance
CEH-100F	Cetyl ethylhexanoate	20 max	1.0%max	150± 10	59130-69-7	15kg/can 170kg steel drum	Oily skin care Sun care Cleansing care Make-up	Colorless, Odorless, a clear liquid
IOP-100F	Ethylhexyl palmitate	25 max	0.5%max	150 ± 10	29806-73-3	15kg/can 170kg steel drum	Oily skin care Sun care Cleansing care Make-up	Colorless, Odorless, a clear liquid
GEH-300F	Triethylhexanoin	40 max	1.0%max	355 ± 5	7360-38-5	15kg/PE Drum 180kg steel drum	Normal skin care Combination skin Make-up	Colorless, a clear liquid
PEEH-400F	Pentaerythrityl Tetraethylhexanoate	50 max	1.0%max	350 ± 10	7299-99-2	15kg/can 180kg steel drum	All skin care Make-up	Odorless, a clear liquid
PEIS-400F	Pentaerythrityl Tetraisostearate	70 max	1.0%max	190 ± 10	62125-22-8	15kg/PE Pail 180kg/ steel drum	Dry skin care Eye care Make-up	A clear liquid

CEH-100F



· Product information

Chemical name / INCI	Cetyl ethylhexanoate
CAS No.	59130-69-7
EINECS No.	261-619-1
Chemical Formula	C ₂₄ H ₄₈ O ₂
Molecular Weight	368.64 g/mol
Chemical Structure	$\begin{array}{c} \text{O} \\ \parallel \\ \text{CH}_3(\text{CH}_2)_3\text{CH}-\text{OCH}_2(\text{CH}_2)_{14}\text{CH}_3 \\ \\ \text{CH}_2\text{CH}_3 \end{array}$

· Product specification

Appearance	Colorless, Clear liquid
mg KOH/g	1.0 max(Typical 0.1max)
mg KOH/g	150±10
Color	APHA 30 max
mg KOH/g	3.0 max
g I ₂ /100g	1.0 max
Clouding point	0°C max

· Details

- A colorless, odorless, transparent liquid with Cetyl alcohol and 2-Ethylhexanoic acid ester.
- Scope of application: Suitable for all cosmetics, especially oil skin care and cleaning oil. Other uses include Suncare, Make-up, etc.
- Skin softener and conditioning agent
- Applies to oil and inorganic pigment dispersion in cleansing cream,

- cream, lotion, make-up products, and sunscreen products.
- Packaging unit: 15 KG/ Can, 170 KG steel drum
- Validity period: 2 years
- Proper storage temperature: Indoor storage below 30°C

* See COA and MSDS for more information.

IOP-100F



· Product information

Chemical name / INCI	Ethylhexyl palmitate
CAS No.	29806-73-3
EINECS No.	249-862-1
Chemical Formula	C ₂₄ H ₄₈ O ₂
Molecular Weight	368.64 g/mol
Chemical Structure	$\begin{array}{c} \text{O} \\ \parallel \\ \text{CH}_3(\text{CH}_2)_{14}\text{C}-\text{OCH}_2\text{CH}(\text{CH}_2)_3\text{CH}_3 \\ \\ \text{CH}_2\text{CH}_3 \end{array}$

· Product specification

Appearance	Colorless, Clear liquid
mg KOH/g	0.5 max(Typical 0.1max)
mg KOH/g	150±10
Color	APHA 25 max
mg KOH/g	3.0 max
g I ₂ /100g	1.0 max
by Karl-fisher	0.1% max

· Details

- An ester of 2-Ethylhexanol and Palmitic acid, colorless, odorless, transparent liquid.
- Scope of application: Suitable for all cosmetics, especially oil skin care and cleaning oil. Other uses include Suncare, Make-up, etc.
- Skin softener and conditioning agent
- Applies to oil and inorganic pigment dispersion in cleansing cream,

- cream, lotion, make-up products, and sunscreen products.
- Packaging unit: 15 KG/ Can, 170 KG steel drum
- Validity period: 2 years
- Proper storage temperature: Indoor storage below 30°C

* See COA and MSDS for more information.

GEH-300F



· Product information

Chemical name / INCI	Triethylhexanoate
CAS No.	7360-38-5
EINECS No.	230-896-0
Chemical Formula	C ₂₇ H ₅₀ O ₆
Molecular Weight	470.68 g/mol
Chemical Structure	

· Product specification

Appearance	Colorless, Clear liquid
mg KOH/g	0.5 max(Typical 0.1max)
mg KOH/g	355±5
Color	APHA 40 max
mg KOH/g	5.0 max
g I2/100g	1.0 max
20°C	0.945-0.959
Clouding point	0°C max

· Details

- Transparent liquid with glycerin and 2-Ethylhexanoic acid 3 tree ester.
- Scope of application: Suitable for all cosmetics, especially normal skin. Other uses include Suncare, Make-up, etc.
- Maintains moist skin by applying conditioning to the skin and blocking evaporation of moisture.
- It serves as a conditioning function for hair to be managed with lively hair and prevents static electricity to facilitate hair care.

- Applies to oil and inorganic pigment dispersion in cleansing cream, cream, lotion, make-up products, and sunscreen products
- Packaging unit: 15 KG/ Can, 180 KG steel drum
- Validity period: 2 years
- Proper storage temperature: Indoor storage below 30°C

* See COA and MSDS for more information.

PEEH-400F



· Product information

Chemical name / INCI	Pentaerythrityl Tetraethylhexanoate
CAS No.	7299-99-2
EINECS No.	230-743-8
Chemical Formula	C ₃₇ H ₆₈ O ₈
Molecular Weight	640.9 g/mol
Chemical Structure	

· Product specification

Appearance	Light yellow clear liquid
mg KOH/g	1.0 max(Typical 0.1max)
mg KOH/g	350±10
Color	APHA 40 max
mg KOH/g	5.0 max
g I2/100g	1.0 max

· Details

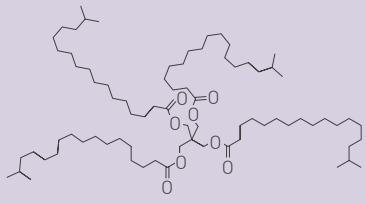
- Tetra ester of Pentaerythritol and 2-Ethylhexanoic acid, a yellowish transparent liquid.
- Scope of application: Suitable for all cosmetics, especially all skin care formulations. Various uses for make-up, etc.
- Maintains moist skin by applying conditioning to the skin and blocking evaporation of moisture.

- Adjust the viscosity of cosmetics with useful thickeners.
- Cream, lotion, make-up products, foundation, lipstick, etc.
- Packaging unit: 15 KG/ Can, 180 KG steel drum
- Validity period: 2 years
- Proper storage temperature: Indoor storage below 30°C

* See COA and MSDS for more information.



· Product information

Chemical name / INCI	Pentaerythrityl Tetraisostearate
CAS No.	62125-22-8
EINECS No.	263-423-1
Chemical Formula	C ₇₇ H ₁₄₈ O ₈
Molecular Weight	1202 g/mol
Chemical Structure	

· Product specification

Appearance	Colorless, Clear liquid
mg KOH/g	1.0 max
mg KOH/g	190±10
Color	APHA 70 max
mg KOH/g	10.0 max
g I ₂ /100g	3.0 max
20℃	0.910±0.01

· Details

- Transparent yellow liquid with a tetraester of Pentaerythritol and isostearic acid.
- Scope of application: Suitable for all cosmetics, especially dry skin. Other uses include lipstick, make-up, etc.
- Maintains moist skin by applying conditioning to the skin and blocking evaporation of moisture.
- It serves as a conditioning function for hair to be managed with lively hair and prevents static electricity to facilitate hair care.

- Cream, lotion, make-up products, foundation, lipstick, etc.
- Packaging unit: 15 KG/ Can, 180 KG steel drum
- Validity period: 2 years
- Proper storage temperature: Indoor storage below 300|하

* See COA and MSDS for more information.

Product specification | Emulsion Thickeners

Product	INCI	Cas No.	Packaging unit	Application	Sense of use	Appearance
Viscocare HA90F	Hydroxyethyl acrylate / Sodium acryloyldimethyltaurate copolymer	111286-86-3	20 kg / Fiber drum	Skin cream, Moisture preparations, Bath preparations, Hair, Sun care, Make-up, Baby care, Lubrication product, Cleansing lotion, Gels Applicable to transparent products	- Dissolve directly from the skin surface - Fresh feeling - Quickly adheres to the skin - Increase skin flexibility after absorption EMULSION : 0.2 ~ 3% CREAM-GEL : 0.5 ~ 3%	Powder
Viscocare P400F	Polyacrylate 13 Poyisobutene Polysorbate 20	152728-72-8 90003-27-4 9005-64-5	20 kg / PE drum	Skin cream, Moisture preparations, Bath preparations, Hair, Sun care, Make-up, Baby care, Lubrication product, Cleansing lotion, Gels	- Flexible and creamy - Gives smooth use - Thick coating EMULSION : 0.2 ~ 3% CREAM-GEL : 0.5 ~ 3%	Viscous emulsion fluid

VISCOCARE HA90F



· Product information

INCI	Hydroxyethyl acrylate / Sodium acryloyldimethyltaurate copolymer
CAS No.	111286-86-3
EINECS No.	N/A
CHINA	listed in IECIC

· Product specification

Appearance	White powder
1.5%PH	5.0 - 6.5
1g, 150°C, 1hr	90% min
RVT, no4, 5rpm	70000 -100000 cps

· Details

- A polymer in a powder state that polymerizes hydroxyethyl acrylate and sodium acryloyl dimethylpropane sulfonate.
- Scope of application: Suitable for all cosmetics, especially thickening agents of skincare. Use body wash, hair care, etc. in a variety of ways.
- Improves oil painting stability of cosmetics
- It serves as conditioning for hair to prevent static electricity to facilitate hair styling.
- It can emulsify itself and emulsifies up to 40% of oil.
- Cold & Hot process is available and neutralization is not required before use.

- It can be increased in PH 3-10 range, and it is excellent in special ingredients such as DHA, AHA, etc.
- Packaging unit: 20KG / Fiber drum
- Validity period: 3 years
- Proper storage temperature: Indoor storage below 30°C degrees (absorbent care)

* See COA and MSDS for more information.

VISCOCARE P400F



· Product information

INCI	Polyacrylate 13 Polyisobutene Polysorbate 20
CAS No.	152728-72- 8 / 90003-27- 4 / 9005-64-5
EINECS No.	N/A / 500-004-7 / 500-018-3
CHINA	listed in IECIC

· Product specification

Appearance	White Emulsion Liquid
3%PH	5.0 - 6.5
By Karl-fisher	5.0% max
RVT, no3, 20rpm	1000 -5000 cps
RVT, no6, 5rpm	40000 -60000 cps
RVT, no6, 5rpm	80000 -130000 cps

· Details

- Emulsion phase with flowability emulsified by Polyacrylate-13, Polyisobutene emulsifier with Polyisobutene.
- Scope of application: Suitable for all cosmetics, especially thickening agents of skincare. Use body wash, hair care, etc. in a variety of ways.
- Improves oil painting stability of cosmetics
- Flexible, creamy and smooth to use
- It can emulsify itself and emulsifies up to 40% of oil.

- Inputs can be used at all stages of the process, cold & hot processes, and no neutralization is required before use.
- It can be increased in PH 2.5-11 range, and has excellent resistance to electrolytes and increased strength.

- Packaging unit: 20 kg / PE open drum
- Validity period: 3 years
- Proper storage temperature: Indoor storage below 30°C

* See COA and MSDS for more information.

Information



01 Description

Carbojel series are very functional and water-soluble moisturizers. They are transparent moisturizers and modifying viscosity and texture. Also they can be used as thickeners & stabilizers in hot and cold processing production. Excellent moisturizing effect comes from the unique structure of Carbojel as a highly polymerized compound. It holds water in the structure (between glycerin and glyceryl acrylate/acrylic copolymer) and water is released when it disintegrates.

02 Function

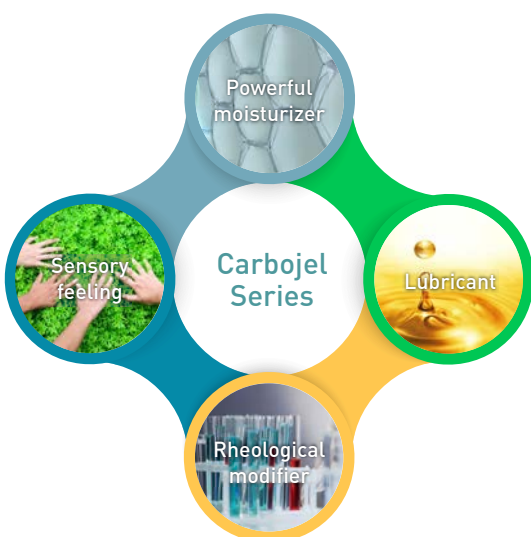
Moisturizers, Thickeners, Rheology modifiers, Lubricants

03 Application

Recommended concentration: 5~50%

Applicable product : Facial moisturizers, creams, body lotions, etc.

Advantages



Colorless clear gel for elegant products



Weak acid: pH 5 – 6, favorable for skin
(pH of Normal skin: 5.2~5.8)



Water-soluble: non-oily emollient and cold processing production



Viscosity : Build the wide range of viscosity



Hydration: excellent moisturizers from highly polymerized structure

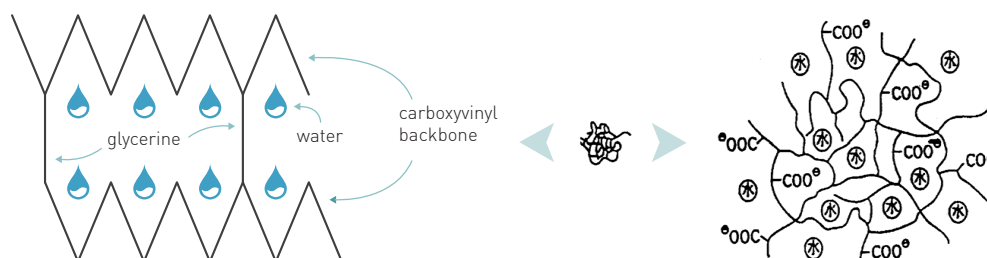


Excellent lubricant: good sensory feeling



Highly stable structure: make more stable products

Moisturizing and lubricative effect when highly polymerized structure release water



HOW TO RELEASE WATER?

Destruction of structure
by addition of ionic
materials & addition of
Acids or alkali

Salt content or
change of pH on the skin

Generally, the salt content at the skin surface gradually disintegrate this highly polymerized compound holding water. The compound release water, and then make moisturizing effect.

Product lists

Trade name	Carbojel CG/CG-SF	Carbojel MS/MS-SF	Carbojel DV/DV-SF	Carbojel OIL/OIL-SF
INCI NAME	Glycerin and Glyceryl Acrylate/ Acrylic Acid Copolymer			Glycerin and Glyceryl Acrylate /Acrylic Acid Copolymer and PVM/MA Copolymer
Appearance	Clear, colorless, Viscous gel			Clear, colorless, Low viscosity liquid
pH	5.0 – 6.0			
Refractive Index	1.415 - 1.435	1.380 - 1.400	1.380 - 1.400	1.380 - 1.410
Viscosity(cps)	200,000 - 400,000	250,000 - 350,000	900,000 - 1,200,000	500 - 1,600
Unique advantages of grade	General grade	The loss of viscosity in aqua solution is less than CG because of different holding capacity of water More light sensory feel than CG	The highest viscosity High yield value → Good for emulsion stabilization and suspension of TiO ₂ , un-ionized pigments, micas, etc	Similar feel to silicon oils
Application	<ul style="list-style-type: none"> - Skin care, Hair care, Make up - Facial moisturizers - Skin lotions & creams - Sun screen creams - Cleansing gels - Makeup removers skin toners - Eye round gels - Body lotions & creams - Massage creams 			

Product specification

· Normal grade

Product	INCI name	Cas No	Appearance	PH	Refractive index	Viscosity	Shelf life	Packaging
Carbojel CG	Glycerin & Glyceryl Acrylate / Acrylic Acid Copolymer & Propylene Glycol	56-81-5 9003-01-4 57-55-6	Clear, colorless, Viscous gel	5.0-6.0	1.415-1.435	200,000-400,000cps Brookfield RVT (no 6, 2.5rpm)	2 YEARS	20Kg/Round PE drum
Carbojel MS	Glycerin & Glyceryl Acrylate / Acrylic Acid Copolymer & Propylene Glycol	56-81-5 9003-01-4 57-55-6	Clear, colorless, Viscous gel	5.0-6.0	1.380-1.400	250,000-350,000cps Brookfield RVT (no 6, 2.5rpm)	2 YEARS	20Kg/Round PE drum
Carbojel DV	Glycerin & Glyceryl Acrylate / Acrylic Acid Copolymer & Propylene Glycol	56-81-5 9003-01-4 57-55-6	Clear, colorless, Viscous gel	5.0-6.0	1.380-1.400	900,000-1,200,000cps Brookfield RVT (no 7, 1.0rpm)	1 YEARS	20Kg/Round PE drum
Carbojel OIL	Glycerin & Glyceryl Acrylate / Acrylic Acid Copolymer & Propylene Glycol & PVM/MA Copolymer	56-81-5 9003-01-4 57-55-6 9011-16-9	Clear, colorless, low viscosity liquid	5.0-6.0	1.380-1.410	500-1,600cps Brookfield RVT (no 3, 50rpm)	2 YEARS	20Kg/Round PE drum 200Kg/PE Drum

· Preseervative free grade

Product	INCI name	Cas No	Appearance	PH	Refractive index	Viscosity	Shelf life	Packaging
Carbojel CG-SF	Glycerin & Glyceryl Acrylate / Acrylic Acid Copolymer & 1,2-Hexanediol	56-81-5 9003-01-4 6920-22-5	Clear, colorless, Viscous gel	5.0-6.0	1.415-1.435	200,000-400,000cps Brookfield RVT (no 6, 2.5rpm)	1 YEARS	20Kg/Round PE drum
Carbojel MS-SF	Glycerin & Glyceryl Acrylate / Acrylic Acid Copolymer & 1,2-Hexanediol	56-81-5 9003-01-4 6920-22-5	Clear, colorless, Viscous gel	5.0-6.0	1.380-1.400	250,000-350,000cps Brookfield RVT (no 6, 2.5rpm)	1 YEARS	20Kg/Round PE drum
Carbojel DV-SF	Glycerin & Glyceryl Acrylate / Acrylic Acid Copolymer & 1,2-Hexanediol	56-81-5 9003-01-4 6920-22-5	Clear, colorless, Viscous gel	5.0-6.0	1.380-1.400	900,000-1,200,000cps Brookfield RVT (no 7, 1.0rpm)	1 YEARS	20Kg/Round PE drum
Carbojel OIL-SF	Glycerin & Glyceryl Acrylate/Acrylic Acid Copolymer & 1,2-Hexanediol & PVM/MA Copolymer	56-81-5 9003-01-4 6920-22-5 9011-16-9	Clear, colorless, low viscosity liquid	5.0-6.0	1.380-1.410	500-1,600cps Brookfield RVT (no 3, 50rpm)	1 YEARS	20Kg/Round PE drum 200Kg/PE Durm

Carbojel CG



· Product information

Chemical name / INCI	Glycerin & Glyceryl Acrylate/ Acrylic Acid copolymer & Propylene Glycol
CAS No.	56-81-5 & 9003-01-4 & 57-55-6
EINECS(Europe)	200-289-5 & 201-177-9 & 200-338-0
DSL/NDL(Canada)	All components listed
ENCS(Japan)	All components listed
AICS(Australia)	All components comply

· Product specification

Appearance	Clear, colorless, Viscous gel
pH (25°C, as is)	5.0 - 6.0
Viscosity (RVT, sp 6, 2.5rpm, 25°C)	200,000 - 400,000cps
Refractive Index	1.415 - 1.435
Arsenic	2 ppm Max
Heavy metal	20 ppm Max
Methyl paraben(%)	< 0.25
Propyl paraben(%)	< 0.08

· Details

- Carbojel CG is a non-drying, water-soluble for cosmetics.
- Carbojel CG has been used in the cosmetic industry as a moisturizing base. This extraordinary moisturizer also lends rheological qualities as well as aesthetics to cosmetic creams, lotions and other personal care products.
- Superior moisturizer and lubricant.
- Increase moisture balance and adds lubricious feel.
- Synthetic or vegetable origin.
- Viscous, colorless, clear gel

- Applied to skin, eye creams, baby care and sun care products.
 - Packaging : 20KG/Round PE drum.
 - Shelf life : 24 month (Indoor storage out of sunlight, at room temperature)
 - Recommended quantity : 5.0% - 50%
- It's dosage depends on the degree of moisture balancing, rheological considerations and aesthetics desired in the product.

* Please refer to the COA and MSDS for more details.

Carbojel CG-SF



· Product information

Chemical name / INCI	Glycerin & Glyceryl Acrylate/ Acrylic Acid copolymer & 1,2-Hexanediol
CAS No.	56-81-5 & 9003-01-4 & 6920-22-5
EINECS(Europe)	200-289-5 & 201-177-9 & 230-029-6
DSL/NDL(Canada)	All components listed
ENCS(Japan)	All components listed
AICS(Australia)	All components comply

· Product specification

Appearance	Clear, colorless, Viscous gel
pH (25°C, as is)	5.0 - 6.0
Viscosity (RVT, sp 6, 2.5rpm, 25°C)	200,000 - 400,000cps
Refractive Index	1.415 - 1.435
Arsenic	2 ppm Max
Heavy metal	20 ppm Max
1,2-Hexanediol(%)	0.5

· Details

- Carbojel CG-SF is Paraben free version of Carbojel CG.
- Carbojel CG-SF is a non-drying, water-soluble for cosmetics.
- Carbojel CG-SF has been used in the cosmetic industry as a moisturizing base. This extraordinary moisturizer also lends rheological qualities as well as aesthetics to cosmetic creams, lotions and other personal care products.
- Superior moisturizer and lubricant.
- Increase moisture balance and adds lubricious feel.
- Synthetic or vegetable origin.

- Viscous, colorless, clear gel
 - Applied to skin, eye creams, baby care and sun care products.
 - Packaging : 20KG/Round PE drum.
 - Shelf life : 12 month (Indoor storage out of sunlight, at room temperature)
 - Recommended quantity : 5.0% - 50%
- It's dosage depends on the degree of moisture balancing, rheological considerations and aesthetics desired in the product.

* Please refer to the COA and MSDS for more details.

Carbojel MS



· Product information

Chemical name / INCI	Glycerin & Glyceryl Acrylate/ Acrylic Acid copolymer & Propylene Glycol
CAS No.	56-81-5 & 9003-01-4 & 57-55-6
EINECS(Europe)	200-289-5 & 201-177-9 & 200-338-0
DSL/NDSL(Canada)	All components listed
ENCS(Japan)	All components listed
AICS(Australia)	All components comply

· Product specification

Appearance	Clear, colorless, Viscous gel
pH (25°C, as is)	5.0 - 6.0
Viscosity (RVT, sp 6, 2.5rpm, 25°C)	250,000 - 350,000cps
Refractive Index	1.380 - 1.400
Arsenic	2 ppm Max
Heavy metal	20 ppm Max
Methyl paraben(%)	< 0.15
Propyl paraben(%)	< 0.04

· Details

- Carbojel MS has been used in the cosmetic industry as a moisturizing base. This extraordinary moisturizer also lends rheological qualities as well as aesthetics to cosmetic creams, lotions and other personal care products.
- Carbojel MS contains a small amount of propylene glycol and methyl and propyl parabens
- Superior moisturizer and lubricant.
- Increase moisture balance and adds lubricious feel.
- Synthetic or vegetable origin.

- Viscous, colorless, clear gel
 - Applied to skin, eye creams, baby care and sun care products.
 - Packaging : 20KG/Round PE drum.
 - Shelf life : 24 month (Indoor storage out of sunlight, at room temperature)
 - Recommended quantity : 10% - 50%
It's dosage depends on the degree of moisture balancing, rheological considerations and aesthetics desired in the product.
- * Please refer to the COA and MSDS for more details.

Carbojel MS-SF



· Product information

Chemical name / INCI	Glycerin & Glyceryl Acrylate/ Acrylic Acid copolymer & 1,2-Hexanediol
CAS No.	56-81-5 & 9003-01-4 & 6920-22-5
EINECS(Europe)	200-289-5 & 201-177-9 & 230-029-6
DSL/NDSL(Canada)	All components listed
ENCS(Japan)	All components listed
AICS(Australia)	All components comply

· Product specification

Appearance	Clear, colorless, Viscous gel
pH (25°C, as is)	5.0 - 6.0
Viscosity (RVT, sp 6, 2.5rpm, 25°C)	250,000 - 350,000cps
Refractive Index	1.380 - 1.400
Arsenic	2 ppm Max
Heavy metal	20 ppm Max
Methyl paraben(%)	0.5

· Details

- Carbojel MS-SF is paraben free version of Carbojel MS, containing 1,2-Hexanediol instead of paraben.
- Carbojel MS-SF has been used in the cosmetic industry as a moisturizing base. This extraordinary moisturizer also lends rheological qualities as well as aesthetics to cosmetic creams, lotions and other personal care products.
- Superior moisturizer and lubricant.
- Increase moisture balance and adds lubricious feel.
- Synthetic or vegetable origin.

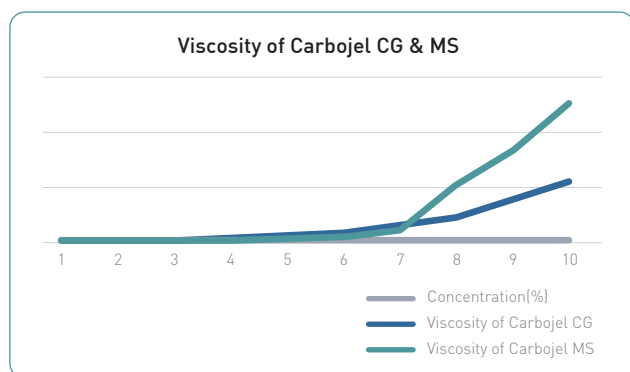
- Viscous, colorless, clear gel
 - Applied to skin, eye creams, baby care and sun care products.
 - Packaging : 20KG/Round PE drum.
 - Shelf life : 24 month (Indoor storage out of sunlight, at room temperature)
 - Recommended quantity : 10% - 50%
It's dosage depends on the degree of moisture balancing, rheological considerations and aesthetics desired in the product.
- * Please refer to the COA and MSDS for more details.

Carbojel MS



· Viscosity profile

The Concept of this products is holds water molecules and releases them when it is disrupted. Disruption occurs with the addition of ionic materials, acids or alkali. This is mainly because of differences in the moisture holding capacity. The viscosity vs. dilution curve for Carbojel MS indicates that the addition of water to the product results in smaller viscosity depression as compared to Carbojel CG.



Concentration[%]	Viscosity(cps)	
	Carbojel CG	Carbojel MS
1%	0	0
2%	0	0
3%	0	6
4%	45	18
5%	95	60
6%	145	85
7%	295	234
8%	465	1062
9%	760	1668
10%	1100	2512

Carbojel DV



· Product information

Chemical name / INCI	Glycerin & Glyceryl Acrylate/ Acrylic Acid copolymer & Propylene Glycol
CAS No.	56-81-5 & 9003-01-4 & 57-55-6
EINECS(Europe)	200-289-5 & 201-177-9 & 200-338-0
DSL/NDSL(Canada)	All components listed
ENCS(Japan)	All components listed
AICS(Australia)	All components comply

· Product specification

Appearance	Clear, colorless, Viscous gel
pH (25°C, as is)	5.0 - 6.0
Viscosity(RVT, sp 7, 1.0rpm, 25°C)	900,000 - 1,200,000cps
20%Viscosity(RVT, sp 6, 2.5rpm, 25°C)	1.380 - 1.400
Refractive Index	1.380 - 1.400
Arsenic	2 ppm Max
Heavy metal	20 ppm Max
Methyl paraben(%)	< 0.15
Propyl paraben(%)	< 0.04

· Details

- Carbojel DV has the highest viscosity among all grades of Carbojel series. It is used for various kinds of personal care products to acquire rheology, moisturization and sensory feel.
- The high yield value of Carbojel DV contributes to stabilize emulsion and suspend compatible material
- Superior moisturizer and lubricant.
- Increase moisture balance and adds lubricious feel.
- Synthetic or vegetable origin.
- Viscous, colorless, clear gel

- Applied to skin, eye creams, baby care and sun care products.
 - Packaging : 20KG/Round PE drum.
 - Shelf life : 12 month (Indoor storage out of sunlight, at room temperature)
 - Recommended quantity : 7.0% - 50%
- It's dosage depends on the degree of moisture balancing, rheological considerations and aesthetics desired in the product.

* Please refer to the COA and MSDS for more details.

Carbojel DV-SF



· Product information

Chemical name / INCI	Glycerin & Glyceryl Acrylate/ Acrylic Acid copolymer & 1,2-Hexanediol
CAS No.	56-81-5 & 9003-01-4 & 6920-22-5
EINECS(Europe)	200-289-5 & 201-177-9 & 230-029-6
DSL/NDSL(Canada)	All components listed
ENCS(Japan)	All components listed
AICS(Australia)	All components comply

· Product specification

Appearance	Clear, colorless, Viscous gel
pH (25°C, as is)	5.0 - 6.0
Viscosity (RVT, sp 6, 2.5rpm, 25°C)	250,000 - 350,000cps
Refractive Index	1.380 - 1.400
Arsenic	2 ppm Max
Heavy metal	20 ppm Max
Methyl paraben(%)	< 0.15
Propyl paraben(%)	< 0.04

· Details

- Carbojel DV-SF is paraben free version of Carbojel DV, containing 1,2-Hexanediol instead of paraben.
- Carbojel DV-SF has the highest viscosity among all grades of Carbojel series. It is used for various kinds of personal care products to acquire rheology, moisturization and sensory feel.
- The high yield value of Carbojel DV-SF contributes to stabilize emulsion and suspend compatible material
- Superior moisturizer and lubricant.
- Increase moisture balance and adds lubricious feel.
- Synthetic or vegetable origin.

- Viscous, colorless, clear gel
- Applied to skin, eye creams, baby care and sun care products.
- Packaging : 20KG/Round PE drum.
- Shelf life : 12 month (Indoor storage out of sunlight, at room temperature)
- Recommended quantity : 7.0% - 50%
It's dosage depends on the degree of moisture balancing, rheological considerations and aesthetics desired in the product.

* Please refer to the COA and MSDS for more details.

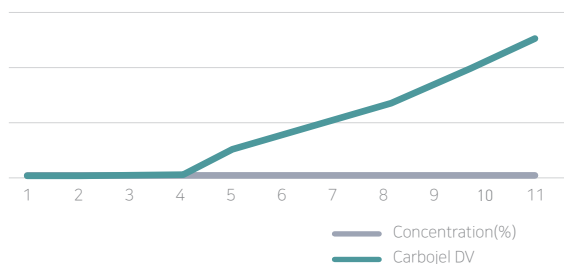
Carbojel DV



· Viscosity profile

Carbojel DV has the highest viscosity among all grades of Carbojel series. It is used for various kinds of personal care products to acquire rheology, moisturization and sensory feel. The most viscous grade having high yield value Good for emulsion stabilizer and suspension of compatible materials Increase moisture balance and adds lubricious feel.

Viscosity change by Carbojel DV concentration



Concentration	Viscosity (cps)
1%	0
2%	50
3%	300
4%	1700
5%	3600
6%	6200
7%	8600
8%	11000
9%	13000
10%	15000

Carbojel OIL



· Product information

Chemical name / INCI	Glycerin & Glyceryl Acrylate/ Acrylic Acid copolymer & Propylene Glycol & PVM/MA Copolymer
CAS No.	56-81-5 & 9003-01-4 & 57-55-6 & 9011-16-9
EINECS(Europe)	200-289-5 & 201-177-9 & 200-338-0 & N/A
DSL/NDSL(Canada)	3 components listed, PVM/MA Copolymer-N/A
ENCS(Japan)	3 components listed, PVM/MA Copolymer-N/A
AICS(Australia)	All components comply

· Product specification

Appearance	Clear, colorless, low viscosity liquid
pH (25°C, as is)	5.0 - 6.0
Viscosity (RVT, sp 3, 50rpm, 25°C)	500 - 1,600cps
Refractive Index	1.380 - 1.410
Arsenic	2 ppm Max
Heavy metal	20 ppm Max
Methyl paraben(%)	< 0.15
Propyl paraben(%)	< 0.04

· Details

- Carbojel Oil is a low viscosity liquid.
- Carbojel Oil is an excellent moisture-balancing agent, its most noted property is its remarkably similar feel to silicone oils.
- Carbojel Oil is an excellent lubricant and lends such characteristics as spread ability, moisturization and silky after-feel to creams, lotions and sun care products.
- Superior moisturizer and lubricant.
- Increase moisture balance and adds lubricious feel.
- Synthetic or vegetable origin.

- Clear, colorless, low viscosity liquid
 - Applied to skin, eye creams, baby care and sun care products.
 - Packaging : 20KG/Round PE drum. 200KG/PE Drum
 - Shelf life : 24 month (Indoor storage out of sunlight, at room temperature)
 - Recommended quantity : 3.0% - 5.0%
- It's dosage depends on the degree of moisture balancing, rheological considerations and aesthetics desired in the product.

* Please refer to the COA and MSDS for more details.

Carbojel OIL-SF



· Product information

Chemical name / INCI	Glycerin & Glyceryl Acrylate/ Acrylic Acid copolymer & 1,2-Hexanediol & PVM/MA Copolymer
CAS No.	56-81-5 & 9003-01-4 & 6920-22-5 & 9011-16-9
EINECS(Europe)	200-289-5 & 201-177-9 & 230-029-6 & N/A
DSL/NDSL(Canada)	3 components listed, PVM/MA Copolymer-N/A
ENCS(Japan)	3 components listed, PVM/MA Copolymer-N/A
AICS(Australia)	All components comply

· Product specification

Appearance	Clear, colorless, low viscosity liquid
pH (25°C, as is)	5.0 - 6.0
Viscosity (RVT, sp 3, 50rpm, 25°C)	500 - 1,600cps
Refractive Index	1.380 - 1.410
Arsenic	2 ppm Max
Heavy metal	20 ppm Max
1,2-Hexanediol(%)	0.5

· Details

- Carbojel Oil-SF is paraben free version of Carbojel Oil, containing 1,2-Hexanediol instead of paraben.
- Carbojel Oil-SF is an excellent moisture-balancing agent, its most noted property is its remarkably similar feel to silicon oils.
- Carbojel Oil-SF is an excellent lubricant and lends such characteristics as spread ability, moisturization and silky after-feel to creams, lotions and sun care products.
- Superior moisturizer and lubricant.
- Increase moisture balance and adds lubricious feel.
- Synthetic or vegetable origin.

- Viscous, colorless, clear liquid
 - Applied to skin, eye creams, baby care and sun care products.
 - Packaging : 20KG/Round PE drum. 200KG/PE Drum
 - Shelf life : 24 month (Indoor storage out of sunlight, at room temperature)
 - Recommended quantity : 3.0% - 5.0%
- It's dosage depends on the degree of moisture balancing, rheological considerations and aesthetics desired in the product.

* Please refer to the COA and MSDS for more details.

Referential formulation

Clear gel moisturizer

Description

Carbojel CG – moisture and Rheological modifier
Carbojel Oil – Silky smooth feel

Procedure

Place the deionized water into a suitable mixing vessel.
With rapid high shear mixing disperse cellulose gum.
Continue mixing until completely hydrated. Switch to paddle blade mixing and add remaining ingredients.
Mix until homogenous then package as desired



No.	Ingredient & Product name	Function	Contents (%)
1	Deionized water	-	82.0
2	Cellulose Gum	Thickener	1.0
3	Carbojel CG	Moisturizer and viscosity	13.0
4	Carbojel OIL	Emollient and moisturizer	3.0
5	1,2-Hexanediol (FHD-600)	Preservative	1.0

Clear Firming gel

Description

This Clear gel tightens the skin to lessen the appearance of wrinkles

Procedure

Combine ingredients of Part B with mixing and heat to 60-65°C .
Add Part B to Part A with mixing, and cool to 40°C .
Add ingredients of Part C individually with mixing and cool to desired fill temperature.



No.	Ingredient & Product name	Function	Contents (%)
A	Deionized water	-	80.0
	Carbojel CG	Moisturizer and viscosity	5.0
B	PEG-150 Pentaerythrityl tetra stearate	Emulsifier	3.0
	Oleth-20	Emulsifier	4.0
	PEG-40 Hydrogenated castor oil	Solubilizer	3.0
C	Acetamido propyltrimonium chloride	Emollient	3.0
	Hyaluronic acid	Moisturizer	1.0
	1,2-Hexanediol (FHD-600)	Preservative	1.0

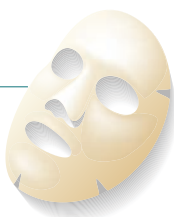
Essence mask

Description

Silicone replacement. Silky after-feel and slip

Procedure

Combine ingredients of Part A heat to 70°C and mixing. Cool to 40°C
Add Part B to Part A and mixing at 40°C.



No.	Ingredient & Product name	Function	Contents (%)
A	Deionized water		qs. 100
	EDTA 2Na	Chelating agent	0.02
	Hydroxy ethyl cellulose	Thickener, lubricant	0.035
	Carbomer 980	Thickener	0.005
	Glycerin	Moisturizer	7.0
	Dipropylene glycol	Humectant	3.0
	Niacinamide	Whitening	2.0
	Adenosine	Wrinkle improver	0.04
B	Carbojel OIL	Emollient, Silicone replacement	2.0
	Glyceryl Glucoside	Humectant	1.0
	1,2-Hexanediol (FHD-600)	Preservative	1.0
	Hyaluronic acid (1% aq. soln.)	Moisturizer	2.0
	Extract (Bio-liqu)	Skin-conditioning agent	0.2
	Fragrance	Perfume	0.01



Skin Moisture Cream

Description

This clear gel tightens the skin to lessen the appearance of wrinkles.

Procedure

Part A and Part B heat to 80°C
Add Part B to Part A with homogenize and cool to 40°C.
Add ingredients of Part C individually with mixing and cool to desired fill temperature. Adjust final pH, if necessary.

No.	Ingredient & Product name	Function	Contents (%)
A	Deionized water	-	qs. 100
	Glycerin	Moisturizer	7.0
	Carbojel DV	Moisturizer and Rheology Modifier	10.0
	Carbojel OIL	Emollient and Lubricant	3.0
B	1,2-Hexanediol (FHD-600)	Preservative	1.5
	Cetearyl alcohol	Emollient, thickener	4.0
	Sorbitan stearate	Emulsifier	2.0
	Cetearic acid	Emollient	2.0
	Squalene	Emollient	3.0
C	Glyceryl tricaprylic /capric acid	Oil	4.0
	Perfume	Perfume	0.3

Deep Moisture Cream

Description

Carbojel DV – moisture and Rheological modifier

Procedure

1. Disperse Part A in water under mixing at 70-75°C.
2. Cooling until 40°C.
3. Disperse Part B in Part A
disperse under mixing at 40°C.
4. Disperse Part C,D in Part A+B
under mixing at 40°C.

No.	Ingredient & Product name	Function	Contents (%)
A	Montanove 202	Emulsifier	2.5
	CS165		1.0
	Tocopheryl acetate	Humectant	0.5
	Shea butter	Emollient, thickener	2.0
	Cetearyl Alcohol	Emollient, thickener	4.0
	Dimethicone 1501		3.0
	Caprylic/Capric Triglyceride	Emollient	5.0
	Behenyl Alcohol	Emollient, thickener	1.0
	Cetyl ethylhexanoate	Emollient	3.0
B	Water		qs. 100
	Glycerin	Moisturizer	6.0
	EDTA-2NA	Chelating agent	0.03
	Butylene Glycol	Moisturizer	3.0
	Allantoin		0.2
	PEG/PPG-17/6 copolymer	Moisturizer	2.0
C	Carbojel DV	Moisturizer & Emollient	2.0
	Corn Starch Modified		1.0
D	1,2-Hexandiol (FHD-600)	Preservative	2.0

Cold Mix Pearl Shampoo

Description

This Pearlescent shampoo leaves hair feeling clean and manageable.

Procedure

Combine ingredients of Part A with mixing
Add Part B with mixing. Add ingredients of Part C with mixing.
Add Part D and E with mixing and adjust pH with 10% Citric acid solution to pH 5.5.

No.	Ingredient & Product name	Function	Contents (%)
A	Deionized water	-	qs. 100
	Lauramide DEA	Foam stabilizer	2.5
	Carbojel CG or Carbojel MS	Moisturizer and viscosity	3.0
B	Cocamidopropyl hydroxysultaine	Surfactant	10.0
C	Acetamido propyltrimonium chloride	Conditioner	2.0
	Sodium laureth sulfate	Surfactant	40.0
	Phenoxyethanol (FPE-900)	Preservative	1.0
D	Hydroxyethyl stearamide-MIPA	Conditioner, thickener	5.0
E	Perfume	Perfume	0.3

SPECIALTY PRODUCT
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