



# MICROSYN

## A PROFESSIONAL MICROBIAL CONTROL SUPPLIER



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# A PROFESSIONAL MICROBIAL CONTROL SUPPLIER

## Microsyn

### —A Professional Microbial Control Supplier

Committed to and be focused on the development and innovation of microbial detection and control technology, “Making your future vision reality” has been the goal of Microsyn company since its foundation.

The world is evolving. The importance of emerging markets has been increasing since the 21st century. Microsyn is ready to help new customers to get better quality and more efficient products in time, and accurate technical support as well.

Microsyn has made strategic adjustments to enrich the product line and strengthen the service to satisfy customer needs.

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## Microsyn Products Overview

Trade Name	INCI Name	CAS No.
<b>Cosmetics Preservatives</b>		
<b>Synguard™ BA</b>	Benzyl alcohol	100-51-6
<b>Synguard™ BKC100</b>	Benzalkonium Chloride	85409-22-9
<b>Synguard™ BP</b>	Phenoxyethanol, Benzoic acid, Benzyl alcohol	122-99-6, 65-85-0, 100-51-6
<b>Synguard™ CMCG</b>	Methylchloroisothiazolinone, Methylisothiazolinone	55965-84-9, 2682-20-4
<b>Synguard™ CMO20</b>	o-Cymen-5-ol	3228-02-2
<b>Synguard™ CMO100</b>	o-Cymen-5-ol	3228-02-2
<b>Synguard™ CPH</b>	Chlorphenesin	104-29-0
<b>Synguard™ CTAB</b>	Cetrimonium Bromide	57-09-0
<b>Synguard™ DA</b>	Dehydroacetic acid	520-45-6
<b>Synguard™ DB</b>	Benzyl alcohol, Dehydroacetic acid	100-51-6, 520-45-6
<b>Synguard™ DLA</b>	Dichlorobenzyl Alcohol	1777-82-8;12041-76-8
<b>Synguard™ EHG</b>	Ethylhexylglycerin	70445-33-9
<b>Synguard™ GLA</b>	Gluconolactone	90-80-2
<b>Synguard™ HAP</b>	Hydroxy Acetophenone	99-93-4
<b>Synguard™ HEO</b>	1,2-Hexanediol	6920-22-5
<b>Synguard™ IP20</b>	Iodopropynyl Butylcarbamate	55406-53-6
<b>Synguard™ IPE</b>	Phenoxyethanol, Iodopropynyl Butylcarbamate	122-99-6, 55406-53-6
<b>Synguard™ IP-WS</b>	Iodopropynyl Butylcarbamate	55406-53-6
<b>Synguard™ MI10</b>	Methylisothiazolinone	2682-20-4
<b>Synguard™ OCT</b>	Piroctone Olamine	68890-66-4
<b>Synguard™ PCE</b>	Phenoxyethanol, Chlorphenesin, Ethylhexylglycerin	122-99-6, 104-29-0, 70445-33-9
<b>Synguard™ PE</b>	Phenoxyethanol	122-99-6
<b>Synguard™ PE9010</b>	Phenoxyethanol, Ethylhexylglycerin	122-99-6, 70445-33-9
<b>Synguard™ PEQ</b>	Phenoxyethanol, Benzalkonium Chloride, Ethylhexylglycerin	122-99-6, 68424-85-1, 70445-33-9
<b>Synguard™ PYG</b>	Pentylene glycol	5343-92-0
<b>Synguard™ QA50</b>	Benzalkonium Chloride	68424-85-1
<b>Synguard™ QA50 USP</b>	Benzalkonium Chloride	68424-85-1
<b>Synguard™ BKC100</b>	Benzalkonium Chloride	85409-22-9
<b>Synguard™ SDA</b>	Sodium Dehydroacetate	4418-26-2
<b>Synguard™ SBA-LO</b>	Sodium Benzoate	532-32-1
<b>Synguard™ SA USP</b>	Salicylic Acid	69-72-7
<b>Synguard™ TA</b>	Tromethamine	77-86-1

## Microsyn Products Overview

Trade Name	INCI Name	CAS No.
<b>Oral care Ingredients</b>		
<b>Synessen™ SRE40</b>	STEVIA REBAUDIANA EXTRACT	57817-89-7
<b>Synessen™ PLS</b>	Polylysine	25104-18-1
<b>Synessen™ LA</b>	Lactic Acid	79-33-4
<b>Synguard™ CPC</b>	CETYLPYRIDINIUM CHLORIDE	123-03-5
<b>Synguard™ CMO20</b>	o-Cymen-5-ol	3228-02-2
<b>Feminine care ingredients</b>		
<b>Synguard™ BG20C</b>	Polyaminopropyl biguanide	32289-58-0
<b>Synessen™ LA</b>	Lactic Acid	79-33-4
<b>Synguard™ BZ20</b>	Benzethonium Chloride	121-54-0
<b>Synguard™ CHG</b>	Chlorhexidine Digluconate	18472-51-0
<b>Synguard™ PQ20</b>	Polyaminopropyl biguanide, Benzalkonium Chloride	32289-58-0, 68424-85-1
<b>Household preservative ingredients</b>		
<b>Synguard™ 50QB</b>	Quaternary ammonium compounds, di-C8-10-alkyldimethyl, chlorides, Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-95-3, 68424-85-1
<b>Synguard™ BG20I</b>	Polyaminopropyl biguanide	32289-58-0
<b>Synhyd™ BIT20</b>	1,2-benzisothiazolin-3-one (BIT)	2634-33-5
<b>Synhyd™ CM10</b>	Methylchloroisothiazolinone, Methylisothiazolinone	55965-84-9, 2682-20-4
<b>Pureguard™ LBS</b>	Polyaminopropyl biguanide, Dicapryl/dicaprylyldimonium chloride	32289-58-0, 68424-95-3
<b>Synhyd™ MB</b>	Methylisothiazolinone 1,2-benzisothiazolin-3-one	2682-20-4, 2634-33-5



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## Cosmetics preservative ingredients

Trade Name	INCI Name	Brief Introduction	Antimicrobial Efficacy			Regulation (pure active ingredients)			Application & Dosage (3 application in priority)
			Bacteria	Fungi	Booster	Europe	USA	Japan	
<b>Synguard™ PYG</b>	Pentylene glycol	Transparent liquid, Low odor Multifunction, Excellent Moisture, Good compatibility, Preservative free system	○	○	○	NL	NL	NL	0.5–5.0% Sc Cc Bc
<b>Synguard™ HEO</b>	1,2-Hexanediol	Transparent liquid, Low odor Multifunction, Moisture, solubilize actives, Preservative free system	●	○	○	NL	NL	NL	0.3–3.0 % Sc Cc Bc
<b>Synguard™ EHG</b>	Ethylhexyglycerin	Transparent liquid Enhance skin feel, Mild, Synergic effect in preserve, Inhibit unpleasant odor	●	○	○	NL	NL	NL	0.05–1.0% Sc Cc Bc
<b>Synguard™ GLA</b>	Gluconolactone	White crystal powder Synergic effect in preserve, Shrink pores, Firming, Anti-aging, Lightening	○	○	○	NL	NL	NL	0.5–1.5% 5.0–15.0% Sc Hc Bc
<b>Synguard™ HAP</b>	Hydroxy Acetophenone	White crystal powder, Odorless Anti-oxidant, Heat stability, Protect from bacterial and fungus contamination	●	●	○	NL	NL	NL	0.2–1.0% Sc Hc Bc
<b>Synguard™ PE</b>	Phenoxyethanol	Colorless liquid, Low odor Broad-spectrum preservative, Heat stability, Acid and alkali stability	●	●	○	≤1.0%	≤1.0%	≤1.0%	0.1–1.0% Sc Cc Hc
<b>Synguard™ PE9010</b>	Phenoxyethanol, Ethylhexyglycerin	Colorless liquid, low odor Broad-spectrum preservative , Mild, Heat stability, Wide pH stability	●	●		≤1.0%	≤1.0%	≤1.0%	0.1–1.0% Sc Cc Hc
<b>Synguard™ PCE</b>	Phenoxyethanol, Chlorphenesin, Ethylhexyglycerin	Colorless liquid, Low odor High performance, Broad-spectrum, Heat stability, Synergic complex to generate lowest MIC value	●	●		≤1.0%	≤1.0%	≤1.0%	0.5–1.0% Sc Hc Bc
<b>Synguard™ CPH</b>	Chlorphenesin	White to off-white Powder Mild, Excellent inhibition to bacterial and fungi	○	●		≤0.3%	≤0.3%	≤0.3%	0.1–0.3% Sc Hc Bc
<b>Synguard™ CMO20</b>	o-Cymen-5-ol	Colorless transparent liquid Phenols biocides, Easy to use	●	●		≤0.1%	≤0.1%	≤0.1%	0.1–0.5% Sc Hc Bc

Sc: Skin care   Cc: Color cosmetics   Hc: Hair care   Bc: Baby care   Ww: Wet Wipes



## Cosmetics preservative ingredients

Trade Name	INCI Name	Brief Introduction	Antimicrobial Efficacy			Regulation (pure active ingredients)			Application & Dosage (3 application in priority)
			Bacteria	Fungi	Booster	Europe	USA	Japan	
			● Strong	○ Medium	◎ Booster				
Sc: Skin care   Cc: Color cosmetics   Hc: Hair care   Bc: Baby care   Ww: Wet Wipes									
<b>Synguard™ CMO100</b>	o-Cymen-5-ol	White crystal Least MIC value, Anti-Oxidant, Anti-irritation, Inhibit the proliferation of acne bacilli, Soften the stratum corneum	●	●		≤0.1%	≤0.1%	≤0.1%	0.05–0.1% Sc Hc Bc
<b>Synguard™ DLA</b>	Dichlorobenzyl Alcohol	White crystals Mild, High performance on anti-Fungus and yeast, Good stability, Excellent anti-dandruff ingredient	○	●		≤0.15%	≤0.15%	≤0.15%	0.05–0.15% Sc Hc Bc
<b>Synguard™ DA</b>	Dehydroacetic acid	White to light yellow powder Broad-spectrum biocides, Heat stability, high performance on anti-fungus and yeast when pH value is below 5.5.	○	●		≤0.6%	≤0.6%	≤0.6%	0.2–0.6% Sc Cc Hc Spray forbidden use
<b>Synguard™ SDA</b>	Sodium Dehydroacetate	White to light yellow powder, Water soluble Easy to release the ion to generate biocides effec	○	●		≤0.6%	≤0.6%	≤0.6%	0.2–0.6% Sc Cc Hc Spray forbidden use
<b>Synguard™ SBA-LO</b>	Sodium Benzoate	White Granule, Odorless Organic acid corrosion, soluble in water, mildly, low odor suitable for low-odor and odorless products	○	●		≤0.5%	≤1.0%	≤0.5%	0.1–0.5% Bc Hc Ww
<b>Synguard™ SA USP</b>	Salicylic Acid	White crystals Organic acid antiseptic sterilization, exfoliation, acne, dandruff, adjust the water and oil balance	●	●		≤0.5%	≤0.5%	≤0.5%	0.1–0.5% Sc Cc Hc pH: 4.0–7.0
<b>Synguard™ BA</b>	Benzyl alcohol	Colorless liquid Broad-spectrum preservative, Anti-oxidant, Fragrance fixer	●	●		≤1.0%	≤1.0%	≤1.0%	0.5–1.0% Sc Cc Hc
<b>Synguard™ DB</b>	Benzyl alcohol, Dehydroacetic acid	Light yellow liquid Broad-spectrum biocides, Especially for powder color cosmetics	●	●		≤1.0%	≤1.0%	≤1.0%	0.2–1.2% pH: 4.0–7.0 Sc Cc Hc Spray forbidden use
<b>Synguard™ BP</b>	Phenoxyethanol, Benzoic acid, Benzyl alcoho	Colorless transparent liquid\ CMIT & MIT free, No release formaldehyde, Comply to new regulation and marketing trend.	●	●		≤1.0%	≤1.0%	≤1.0%	0.5–1.0% pH: 4.0–6.5 Sc Hc Bc
<b>Synguard™ OCT</b>	Piroctone Olamine	White powder Mild, High performance on anti-bacterial,Fungus and yeast, Good stability, Excellent anti-dandruff ingredient.	○	●		RO: ≤1.0% LO: ≤0.5%	RO≤1.0% LO≤0.5%	RO: ≤1.0% LO: ≤0.5%	0.1–1.0% Sc Hc Bc

# Cosmetics preservative ingredients



Trade Name	INCI Name	Brief Introduction	Antimicrobial Efficacy			Regulation (pure active ingredients)			Application & Dosage (3 application in priority)
			Bacteria	Fungi	Booster	Europe	USA	Japan	
<p>Sc: Skin care   Cc: Color cosmetics   Hc: Hair care   Bc: Baby care   Ww: Wet Wipes</p>									
<b>Synguard™ IP20</b>	IodopropynylButylcarbamate	Light yellow and transparent liquid High performance anti-fungus and yeast	○	●		RO: ≤0.02% LO: ≤0.01%	RO: ≤0.02% LO: ≤0.01%	RO: ≤0.02% LO: ≤0.01%	0.01–0.1% Sc Hc Ww Forbidden used in baby care products, lip-care products
<b>Synguard™ IPE</b>	Phenoxyethanol, IodopropynylButylcarbamate	Light yellow liquid Broad-spectrum preservative, High effect in anti-fungus and bacteria	●	●		RO: ≤1.0% LO: ≤0.5%	RO: ≤1.0% LO: ≤0.5%	RO: ≤1.0% LO: ≤0.5%	0.1–1.0% ≤70°C添加 Sc Hc Ww Forbidden used in baby care products, lip-care products
<b>Synguard™ IP-WS</b>	IodopropynylButylcarbamate	Light yellow liquid Broad-spectrum preservative, High effect in anti-fungus, Water solubility	○	●		RO: ≤0.02% LO: ≤0.01%	RO: ≤0.02% LO: ≤0.01%	RO: ≤0.02% LO: ≤0.01%	0.05–0.3% Sc Hc Ww Forbidden used in baby care products, lip-care products
<b>Synguard™ CM-CG</b>	Methylchloroisothiazolinone, Methylisothiazolinone	Colorless and light yellow liquid Cosmetic grade, Classic, Broad-spectrum, High performance, Biodegradable	●	●		RO: ≤0.0015%	RO: ≤0.0015%	RO: ≤0.0015%	0.01–0.1% Hc Rinse-off only
<b>Synguard™ MI10</b>	Methylisothiazolinone	Transparent colorless liquid Classic, Broad-spectrum, High performance, Biodegradable, Formaldehyde and CMIT free, Temperature and pH stable	●	○		RO: ≤0.0015%	≤0.01%	≤0.01%	0.05–0.1% Hc Rinse-off only in EU
<b>Synguard™ CTAB</b>	Cetrimonium Bromide	White to light yellow powder Mild, Anti-bacterial and fungus, Especially for color cosmetics remover, Soften skin.	●	●		≤0.1%	≤0.1%	≤0.1%	0.05–0.1% Sc Hc Ww
<b>Synguard™ BKC100</b>	Benzalkonium Chloride	White crystalline powder Special carbon chain custom-made, safe and efficient, almost odorless, suitable for low-odor and odorless products	●	●		≤0.1%	≤0.1%	≤0.1%	0.05–0.1% Sc Cc Hc
<b>Synguard™ QA50</b>	Benzalkonium Chloride	Colorless transparent liquid Broad spectrum biocidesTake effect instantly Deodorize	●	●		≤0.1%	≤0.1%	≤0.1%	0.1–0.2% Sc Hc Ww
<b>Synguard™ QA50 USP</b>	Benzalkonium Chloride	Colorless transparent liquid USP level specifications and quality requirements efficient and safe	●	●		≤0.1%	≤0.1%	≤0.1%	0.1–0.2% Sc Hc Ww
<b>Synguard™ PEQ</b>	Phenoxyethanol, Benzalkonium Chloride, Ethylhexylglycerin	Colorless to light yellow transparent liquid Comply with wet-tissue and cosmetic regulations, anti-bacterial and fungus instantly.	●	●		≤1.0%	≤1.0%	≤1.0%	0.5–0.7% Sc Hc Ww
<b>Synguard™ TA</b>	Tromethamine	Colorless transparent liquid Buffering agent, Neutralizer, Co-solvent, Deodorant, Preservative synergetic	○	○	◎	NL	NL	NL	0.2–10.0% Sc Hc Bc

## Oral care ingredients

Oral health is important but often overlooked. Fresh mouth and white even teeth are also healthy and beautiful standard. Microsyn has below ingredients for following oral care products: tooth paste, mouthwash, oral spray

Trade Name	INCI Name	Brief Introduction	Dosage Suggestion
<b>Synessen™ SRE40</b>	( STEVIA REBAUDIANA ) STEVIA REBAUDIANA EXTRACT	White to light yellow powder Stable in acid and salt, Used as a non-absorbable sweetener, Suggest to be used in oral care products to reduce the proliferation of harmful bacteria in oral cavity and reduce the occurrence of dental caries.	0.01–0.5%
<b>Synessen™ PLS</b>	Polylysine	Light yellow powder Natural preservative, Excellent biocide effect and heat stability	0.05–0.5%
<b>Synessen™ LA</b>	Lactic Acid	Colorless to lightyellow liquid Natural fermentation source, good antibacterial properties, pH regulation	0.1–5.0%
<b>Synguard™ CPC</b>	CETYLPIRIDINIUM CHLORIDE	white crystalline powder Mild, Anti-bacterial and fungus, Oralcare	0.01–0.1%
<b>Synguard™ CMO20</b>	o-Cymen-5-ol	Colorless transparent liquid Phenolic anti-septic bactericide, Effectively remove dental plaque and eliminate the odor caused by oral microorganisms	0.1–0.5%

## Feminine care ingredients

Microsyn has below ingredients for following feminine care products: Wet wipes, dry tissue, anti-bacterial cleansing.

Trade Name	INCI Name	Brief Introduction	Dosage Suggestion
<b>Synessen™ LA</b>	Lactic Acid	Colorless to lightyellow liquid Natural fermentation source, good antibacterial properties, pH regulation	0.1–5.0%
<b>Synguard™ BG20C</b>	Polyaminopropyl biguanide	Colorless to light yellow transparent liquid Mild, Efficient and safeguard, Suggestbe used for mucosal contact products.	0.5–2.0%
<b>Synguard™ PQ20</b>	Polyaminopropyl biguanide, Benzalkonium Chloride	Colorless to light yellow transparent liquid Efficient anti-bacterial cationic compound, Specialbactericidal mechanism, Effectively killing drug-resistant mutant bacteria instantly	0.5–2.0%
<b>Synguard™ BZ20</b>	Benzethonium Chloride	Colorless transparent liquid Safe and mild, USP grade biocide, Killing bacterial in at least time	0.5–2.0%
<b>Synguard™ CHG</b>	Chlorhexidine Digluconate	Colorless to light yellow liquid, Odorless Broad spectrum anti-bacterial, Take effect instantly	0.5–10%

## Household preservative and ingredients

Microsyn has 2 kinds of products for household products as below:

Trade Name	Chemical Name	Brief Introduction	Dosage Suggestion
<b>Synhyd™ CM10</b>	Methylchlorisothiazolinone, Methylisothiazolinone	Colorless to light yellow liquid Classic, Broad-spectrum, High performance, Biodegradable Preservative----Dish wash, Kitchen tissue, Laundry liquid, Floor care wax	0.01–0.1%
<b>Synhyd™ BIT20</b>	1,2-benzisothiazolin-3-one (BIT)	Light yellow to amber liquid Broad-spectrum, Safeguard, Used in a lot of water products, In-tank biocide and preservative Preservative---Pesticide ,Laundry liquid ,Softener	0.05–0.1%
<b>Synguard™ 50QB</b>	Quaternary ammonium compounds, di-C8-10-alkyldimethyl, chlorides, Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	Light yellow liquid Kill the bacterial and fungus instantly in hard surface and dry tissue, Environment friendly, biodegradable. Biocide----- Anti-bacterial dry tissue, Wet tissue, Toilet cleansing water, Hard surface anti-bacterial water	0.1–5.0%
<b>Synguard™ BG20I</b>	Polyaminopropyl biguanide	Colorless to light yellow liquid Take effect instantly, Broad spectrum, Deodor Biocide----- Anti-bacterial dry tissue, wet tissue, Toilet clean water	0.3–1.2%
<b>Pureguard™ LBS</b>	Polyaminopropyl biguanide, Dicapryl/dicaprylyldimonium chloride	Biocide----- Anti-bacterial dry tissue, wet tissue, Toilet clean water Colorless to light yellow transparent liquid Broad spectrum preservative, Textile sterilizer, Surface anti-bacterial, Deodor Biocide-----Fabric softener	0.5–5.0%

## Factory hygiene and Equipment disinfection

Microsyn has below ingredients for disinfection of environmental hygiene in factories and surface disinfection of production equipment.

Trade Name	Chemical Name	Brief Introduction	Dosage Suggestion
<b>Synguard™ Compound Disinfectant</b>	Polyaminopropyl biguanide, Benzalkonium Chloride	Colorless to light yellow transparent liquid Oral non-toxic, non-skin irritation, very low metal corrosion, safe and efficient. used for disinfecting the surfaces of hospitals, food processing plants, hotels, guesthouses, stations, vehicles, schools, furniture and other places.	1:50



## Technical support and Service

### Formulation Research Center

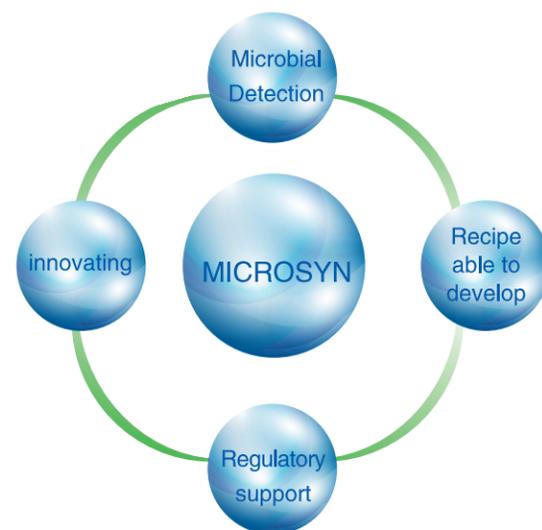
Microsyn Technical Center has a fully functional formulation laboratory, which can help customers optimize the formulation to the maximum extent, save experimental resources and shorten the testing time.

- Formulation compatibility test
- Formulation basic character test and selection
- Cooperate to develop high performance products
- Assist in solving problems in formulation and practical application
- Provide suggestions on process design and equipment management in the production process

### Microbiology Detection

Microsyn Core Support --- Strict microinspection to ensure product development.

- Microbiological control efficiency and solutions
- Microbial on-line detection
- Monitoring the actual performance of the product
- Production sanitation inspection and on-site support



### Research & Innovation

Microsyn adheres to basic research and innovation, and fulfills its commitment to customers.

- Research on the minimum inhibitory concentration of microorganisms
- On-site strain extraction and analysis identification
- New active substances development, validation and formulation test
- Natural active ingredients extraction and application test

### Regulation Support

Microsyn Comprehensive Regulatory support is designed to help customers obtain quality products that comply with local regulations at the best resource and environmental cost.

- High performance products in line with environmental laws and regulations and corresponding technical support
- General chemical management and registration support
- Constant updating of relevant laws and regulations around the world and reserve solutions in advance
- Regulation consultation in destination market and support of registration process





