

Barentz.



HI&I

**Eco-Friendly
Ingredients**



Natural, Sustainably Sourced and Environmentally Preferred Ingredient Solutions.

At Barentz, we believe we have a responsibility to our planet. We actively support our customers in formulating safer, more effective products that add value to their businesses and the earth.

Barentz offers natural, sustainably sourced raw materials that help customers reduce their carbon footprint. These products can be used in the formulation of laundry detergents, hard-surface cleaners, dish wash, air care products, as well as a wide range of home and commercial use products. Barentz is here to help navigate the ever changing regulatory landscape surrounding the chemical industry.

Barentz' sustainable solutions allow formulators to develop products with reduced levels or are free of:

- 1,4-dioxane
- Ammonia
- Chlorine
- DEA
- EDTA
- Formaldehyde
- Glycol ethers
- NTA
- Petroleum derivatives
- Phosphates
- Parabens
- Synthetic dyes or fragrances



Barentz' range of sustainable solutions allows customers to comply with various eco-friendly certification programs to meet environmental and safety standards.



Your Guide to Sustainable Solutions.

Bio-Based Specialty Solvents

AH-SYNOVA® 1,3 PDO-HC

1,3-Propanediol

100% bio-based, natural, skin-friendly alternative to petroleum-based glycols for HI&I applications.

Features include: high purity, favorable environmental profile, enhanced clarity, lack of skin irritation, good stability, USDA Bio-preferred & CleanGredients listing in process, Prop 65 Compliant

AUGEO® CLEAN MULTI

Isopropylidene Glycerol

66.7% bio-based & renewably sourced glycol replacement & solvent developed for use in multipurpose cleaners, laundry detergents, dish wash, air care, degreasers, glass cleaners & specialty cleaners. Augeo® Clean Multi can also be used as a fragrance carrier and diluent

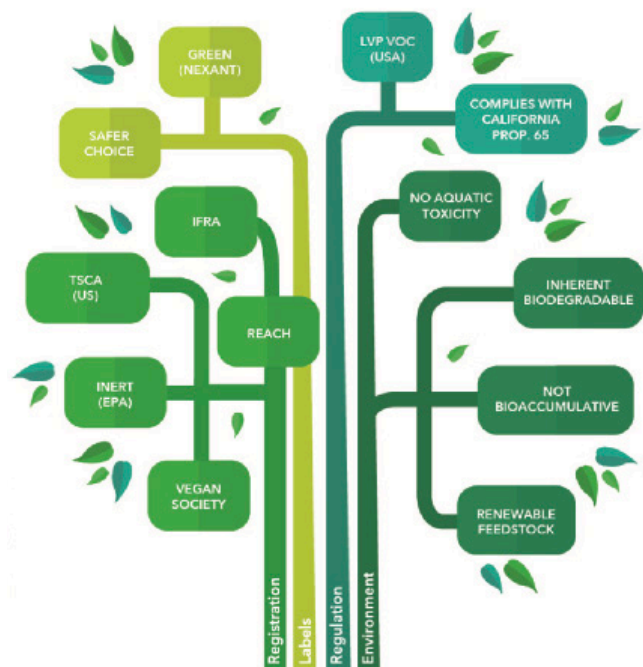
Features include: good stability, favorable environmental profile, non-toxic, presents a low carbon footprint, compliant with VOC legislation & Prop 65, **CleanGredients listed**

AUGEO® CRYSTAL

Isopropylidene Glycerol

66.7% bio-based, renewably sourced solvent developed for use in surface care, fragrances, air care and more. Certified vegan by the Vegan Society.

Features include: good stability, low toxicity, non-corrosive, low volatility, **CleanGredients listed**



D-LIMONENE

Citrus Terpene

Naturally derived solvent derived from fresh citrus for use in a wide variety of applications and pH ranges.

Features include: enhanced solvency, effective degreasing & cleaning performance on hard surfaces, 100% bio-based, Prop 65 compliant

SOY METHYL ESTER

Methyl Ester

100% bio-based methyl ester, naturally derived from soy beans. Soy Methyl Ester has a variety of benefits and uses in the household care, industrial and institutional cleaning market.

Features include: biodegradable, non-reactive, non-toxic, non-flammable



Enzymes

BIONAT® 102 L

Performance Detergent Additive

Specially designed enzyme/surfactant blend for use in liquid laundry detergents, pre-spotters, & hand dish wash. Delivers exceptional stain removal, without added harmful effects on the environment.

Features include: good stability, 97% biobased, free of APEO, phosphate and VOC, **qualifies for use in Safer Choice-certified products**

BIONAT® 400 L

Liquid Multi-Enzyme Mix

Pre-stabilized enzyme mix that delivers high-performance across a wide range of conditions. The scientifically selected enzymes and stabilization components allow for use in many detergent types.

Features include: good stability, favorable environmental profile, applicable for sustainable unit dose formats

LAVERGY® M ACE 100 L

Mannanase

Provides superior mannanase performance when using cold and quick washing cycles. Saves end consumers both time and money in the form of lower energy bills.

Features include: energy saving benefits, powered by nature, helps lower carbon footprint

LAVERGY® PRO 114 L

Pre-Stabilized Protease

Protease with excellent boron-free stabilization technology. Lavergy® Pro 114LS has high stability and wash-performance.

Features include: readily biodegradable, favorable environmental profile, allows for cold wash temperatures, superior stability, preservative & 1,4-dioxane-free, **CleanGredients listed**

BIONAT® 104 L

Performance Detergent Additive

Specially designed enzyme/surfactant blend for use in liquid laundry detergents and pre-spotter formulations. Delivers exceptional stain removal, without added harmful effects on the environment.

Features include: good stability, 98% biobased, free of APEO, phosphate and VOC, **qualifies for use in Safer Choice-certified products**

LAVERGY® C BRIGHT 100 L

Cellulase

Excellent detergent cellulase with superior anti-greying performance. Suitable for all types of liquid laundry detergent compositions and is especially recommended for formulations in the pH range of 6 to 9.

Features include: energy saving benefits, **CleanGredients listed**

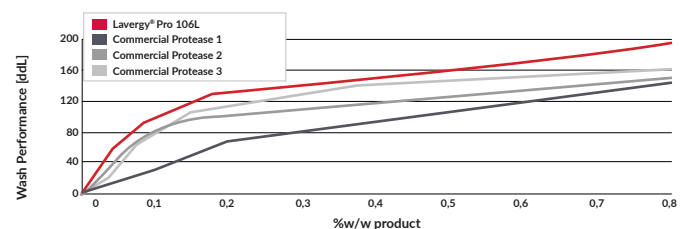
LAVERGY® PRO 106 L

Non-Stabilized Protease

Presents a high plateau of performance over the dose-response curve compared to other leading proteases leading to better stain removal and reduction in re-wash, even at lower temperatures.

Features include: readily biodegradable, favorable environmental profile, allows for cold wash temperatures, 1,4-dioxane free, **CleanGredients listed**

SUPERIOR PERFORMANCE @ 20°C



Test method: Miele Novotronic W1614 WPS; standard cotton program at 20°C and 30°C; 15L; 3,5kg ballast load; WEU liquid laundry detergent; 50g with Lavergy® Pro 106 L and market relevant proteases. Multi-stain monitors with 13 protease relevant stains; CIELab*

- BASF liquid protease Lavergy® Pro 106 L has superior efficacy at 20 °C and 30 °C
- Highest performance plateau of market-relevant detergent proteases
- Differentiating performance on egg, blood, and milk stains

ENVIRONMENTAL COMPATIBILITY

Product	Biodegradability	Fish Toxicity (acute)*
Lavergy® C Bright 100 L	Readily Biodegradable (OECD)	8.2 mg/L
Lavergy® Pro 106 L	Readily Biodegradable (OECD)	8.2 mg/L
Lavergy® Pro 114 LS	Readily Biodegradable (OECD)	There is a high probability the product is not acutely harmful to aquatic organisms

* (LC 50 96h Oncorhynchus mykiss)

Surfactants

CALFOAM® SLS-95

Sodium Lauryl Sulfate

Naturally derived, vegetable based 95% active sodium lauryl sulfate in granular form. Calfoam® SLS-95 produces copious foam and a rich lather. Excellent soil removal for dish wash, car wash, laundry, carpet shampoo, hard surface cleaners

Features include: readily biodegradable, outstanding flash foamer, excellent detergency & soil removal properties, derived from renewable vegetable resources

FLEXICLEAN™ AMP-FB

Biobased Surfactant

Bio-based, high foaming amphoteric detergent for use in cleaning products. Flexiclean™ AMP-FB can be combined with Flexipel™ SR-80 for vehicle care formulations to provide foaming, cleaning, and hydrophilic barrier.

Features include: readily biodegradable, provides solubilizing & emulsification properties, compatibilizes surfactants in high electrolyte formulations, high foam

FLEXISURF™ LDP

Sodium Lauriminodipropionate

Naturally derived, amphoteric surfactant that compatibilizes nonionic surfactants in high electrolyte and high alkaline formulations while contributing detergency and foaming in hard or soft water.

Features include: readily biodegradable, contributes wetting, cleaning & solubilizing benefits, exceptional foaming regardless of water hardness

RHODAPEX® ESB 70 NAT

Sodium Lauryl Ether Sulphate

Versatile raw material sourced from plants and produced entirely with renewable carbon.

Features include: boosts cleansing & purifying, presents a low carbon footprint, promotes foaming

CALNEXT™ 126 & 196 BIO-SURFACTANT

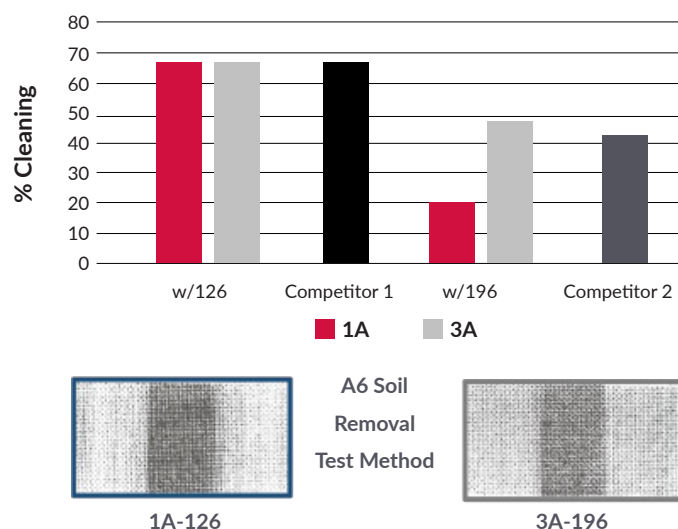
Proprietary Biobased Surfactant

Bio-based, proprietary, patent-pending surfactant derived from renewable, biomass feedstock produced via sustainable production methods. The surfactant of choice for a wide variety of household, industrial & institutional (HI&I) applications.

Features include: 35% active, superior cleaning & soil removal properties, excellent wetting & foaming, highly water soluble, great detergency, exceeds low 1,4-dioxane requirements

All-Purpose Cleaner with CalNEXT™ 126 & 196 Bio-Surfactant:

A6 Soil Removal Testing



Ingredient	1A-wt%	3AWt%
Water	to 100	to 100
CalNEXT™ Surfactant (Active)	1.0	1.0
Sodium Carbonate	0.5	0.5
d-Limonene	0.2	0.2
NxtSolv100	3.0	--
MCI/MI	0.1	0.1

RHODASURF® 6 NAT MB

Ethoxylated C12-14 Alcohols

Biodegradable Linear Alcohol Ethoxylate, naturally sourced for use in variety of home care applications.

Features include: readily biodegradable, high foaming

Surfactants

RHODASURF® 91-6

Ethoxylated C9-11 Alcohols

Biodegradable Linear Alcohol Ethoxylate is primarily an emulsifier, detergent and wetting agent. For use in household cleaners, laundry products, vehicle wash, floor cleaners, wax strippers, industrial cleaners and more.

Features include: readily biodegradable, excellent wetting, emulsification & detergency



ENVIRONMENTAL COMPATIBILITY

Product	Biodegradability	Fish Toxicity (acute)*
Calfoam® SLS-95	Readily Biodegradable	1.36 mg/L; 29 mg/L
CalNEXT™ 126 Bio-surfactant	Ask for details	Ask for details
CalNEXT™ 196 Bio-surfactant	Ask for details	Ask for details
Flexiclean™ AMP-FB	Readily Biodegradable (OECD)	4.2 mg a.i./L; > 10 - <100 mg/L
Flexisurf™ LDP	Readily Biodegradable (OECD)	4.2 mg a.i./L
Rhodapex® ESB 70 NAT	Readily Biodegradable	1 ~ 10 mg/L
Rhodasurf® 91-6	Readily Biodegradable 76% (OECD)	1 ~ 10 mg/L
Rhodasurf® 6 NAT MB	Readily Biodegradable 60% (OECD)	1.2 mg/L; 2mg/L; 1.5 mg/L

Environmentally Preferred Product Offerings

Product Name	Chemical Description	Eco-friendly Features	Applications			
			Carpet	Hand Dish	Hard Surface	Laundry
Enzymes						
BioNat® 102 L	Performance detergent additive	97% biobased, free of APEO, phosphate & VOC Qualifies for use in Safer Choice-certified products Delivers exception stain removal Contains a unique biobased, nonionic surfactant Pre-stabilized to maintain ingredient efficacy		✓		✓
BioNat® 104 L	Performance detergent additive	98% biobased, free of APEO, phosphate & VOC Qualifies for use in Safer Choice-certified products Delivers exception stain removal Contains a unique biobased, nonionic surfactant Pre-stabilized to maintain ingredient efficacy				✓
BioNat® 400 L	Liquid multi-enzyme blend	Pre-stabilized enzyme mix Delivers exceptional soil removal Applicable for sustainable unit-dose formats				✓
Lavergy® C Bright 100 L	Cellulase	Listed on the EPA's Safer Chemical Ingredients List (SCIL) and CleanGredients Bio-based (ask for details) Biodegradable Applicable for low water & concentrated formats (lowers energy costs)				✓
Lavergy® M Ace 100 L	Mannanase	Superior performance in cold-water and quick-wash cycles Helps maintain the integrity of fabrics Removes stains from mannan-containing foods such as sauces, chocolate, ice cream, etc.		✓		✓
Lavergy® Pro 106 L	Protease	Listed on the EPA's Safer Chemical Ingredients List (SCIL) and CleanGredients Bio-based (ask for details) Biodegradable Applicable for low water & concentrated formats (lowers energy costs)		✓	✓	✓
Lavergy® Pro 114 LS	Protease	Listed on the EPA's Safer Chemical Ingredients List (SCIL) and CleanGredients Bio-based (ask for details) Biodegradable Applicable for low water & concentrated formats (lowers energy costs)		✓	✓	✓

Environmentally Preferred Product Offerings

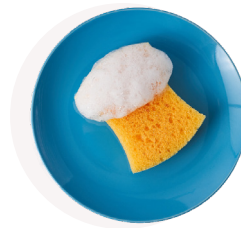
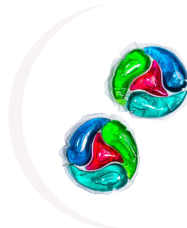
Product Name	Chemical Description	Eco-friendly Features	Applications			
			Carpet	Hand Dish	Hard Surface	Laundry
Microbes						
J-Zyme® Multi Spore 10BD SB	Blend of Bacillus spores	Microorganism is non-pathogenic, classified to BioSafety Level 1 Free of EDTA, 1,4-dioxane,and Prop 65 chemicals	✓		✓	
J-Zyme® Multi Spore Carpet Spot 5X FF	Blend of Bacillus spores	Microorganism is non-pathogenic, classified to BioSafety Level 1 Free of EDTA, 1,4-dioxane,and Prop 65 chemicals	✓		✓	
J-Zyme® Multi Spore Concentrate 20X NF	Blend of Bacillus spores	Microorganism is non-pathogenic, classified to BioSafety Level 1 Free of EDTA, 1,4-dioxane,and Prop 65 chemicals	✓		✓	
J-Zyme® Multi Spore Odor Controller 10X FF	Blend of Bacillus spores	Microorganism is non-pathogenic, classified to BioSafety Level 1. Free of EDTA, 1,4-dioxane, and Prop 65 chemicals	✓		✓	
Odor Absorbers						
Flexisorb™ OD-120ZnR	Zinc ricinoleate	Naturally sourced from castor seed oil 63% bio-based Biodegradable Chelate-free Applicable for low water & concentrated formats	✓		✓	✓
Polymers						
Repel-O-Tex Crystal	Performance polymer	Suitable for cold water washes Applicable for concentrated formats Improved performance at low dosage and low level of surfactant				✓
Rheozan® BLC	Biological liquid cellulase	Listed on the EPA's Safer Chemical Ingredients List (SCIL) 100% bio-based Fermentation manufacturing process Biodegradable Applicable for low water & concentrated formats	✓	✓	✓	✓
Preservatives						
Proxel AQ	1,2-benzisothiazolin-3- one in water	Zero VOC, broad-spectrum preservative Protection for water-based products from fungi, yeasts and bacteria	✓	✓	✓	✓
Proxel GXL	1,2-benzisothiazolin-3- one in water	Listed on the EPA's Safer Chemical Ingredients list (SCIL) and CleanGredients Effective control of a wide range of organisms Long-term storage stability Ease of use	✓	✓	✓	✓
TroyGuard™ CM1.5 CF	Chloromethylisothiazolinone (CMIT) Methylisothiazolinone (MIT)	Listed on the EPA's Safer Chemical Ingredients List (SCIL) and CleanGredients Applicable for low water & concentrated formats	✓	✓	✓	✓
Silicones						
ECO DMS-300 Silicone Fluid	Polydimethylsiloxane	As a defoamer, listed on the EPA's Safer Chemical Ingredients List (SCIL) Greener fluid Manufactured in the only silicone recycling plant in the USA Applicable for low water & concentrated formats	✓		✓	✓
Solvents						
AH-SYNOVA® 1,3 PDO-HC	1,3-propanediol	Listed on the EPA's Safer Chemical Ingredients List (SCIL) and CleanGredients (in process) 100% bio-based Fermentation manufacturing process Biodegradable Applicable for low water & concentrated formats	✓	✓	✓	✓
Augeo® Clean Multi	Isopropylideneglycerol	Listed on the EPA's Safer Chemical Ingredients List (SCIL) and CleanGredients Bio-based (ask for details) Applicable for low water & concentrated formats	✓	✓	✓	✓

Environmentally Preferred Product Offerings

Product Name	Chemical Description	Eco-friendly Features	Applications			
			Carpet	Hand Dish	Hard Surface	Laundry
Solvents						
Augeo® Crystal	Isopropylideneglycerol	Listed on the EPA's Safer Chemical Ingredients List (SCIL) and CleanGredients Registered by the Vegan Society Bio-based (ask for details) Applicable for low water & concentrated formats	✓	✓	✓	✓
D-Limonene	Orange terpenes	Listed on the EPA's Safer Chemical Ingredients List (SCIL) 100 % bio-based Free of 1,4-dioxane and Prop 65 chemicals			✓	✓
Soy Methyl Ester	Methyl ester	100 % bio-based Biodegradable Non-toxic			✓	
Surfactants - Amphoteric						
Flexisurf™ LDP	Sodium lauriminodipropionate	Contains at least 67% biorenewable carbon Biodegradable Applicable for low water & concentrated formats Meets 1,4-dioxane requirements	✓	✓	✓	✓
Flexisurf™ MCO-30	Myristyl/Cetyl dimethylamine oxide	Derived exclusively from all natural feedstock Contains at least 88% biorenewable carbon Applicable for low water & concentrated formats Meets 1,4-dioxane requirements	✓	✓	✓	✓
Spectrum Betaine	Cocamidopropyl betaine	Naturally derived Mild on skin and surfaces Readily biodegradable	✓	✓	✓	✓
Spectrum LO	Lauramine oxide	Listed on the EPA's Safer Chemical Ingredients List (SCIL) Bio-based (ask for details) Biodegradable Applicable for low water & concentrated formats	✓	✓	✓	✓
Surfactants - Anionic						
Calsoft® AOS-40		1,4-dioxane free SLES alternative	✓	✓	✓	✓
Calsoft® L-40 & L-60	Sodium linear alkylbenzene sulfonate	Listed on the EPA's Safer Chemical Ingredients List (SCIL) and CleanGredients Biodegradable Applicable for low water & concentrated formats	✓	✓	✓	✓
Calsoft® LAS-99	Linear alkylbenzene sulfonic acid	Listed on the EPA's Safer Chemical Ingredients List (SCIL) and CleanGredients Biodegradable Applicable for low water & concentrated formats	✓	✓	✓	✓
EMPICOL® LX/N	Sodium lauryl sulfate	Listed on the EPA's Safer Chemical Ingredients List (SCIL) Biobased (ask for details) Biodegradable Applicable for low water & concentrated formats	✓	✓	✓	✓
Flexisurf™ SS-40E	Disodium laureth sulfosuccinate	Biobased Contains at least 55% biorenewable carbon Biodegradable Sulfate free	✓	✓		
Rhodapex® ESB 70 NAT	Sodium lauryl ether sulfate	Listed on the EPA's Safer Chemical Ingredients List (SCIL) and CleanGredients Biobased (ask for details) Biodegradable Applicable for low water & concentrated formats		✓		✓
Spectradet 611L-UP	Non-Alkanolamide Foaming Concentrate	High biobased content Readily biodegradable Meets 1,4-dioxane requirements	✓	✓	✓	
Spectradet LHS-40	Potassium cocoate	Derived from all natural feedstock Contains 100% biorenewable carbon Readily biodegradable Low aquatic toxicity Meets 1,4-dioxane requirements			✓	

Environmentally Preferred Product Offerings

Product Name	Chemical Description	Eco-friendly Features	Applications			
			Carpet	Hand Dish	Hard Surface	Laundry
Surfactants - Nonionic						
Aquanate™ COT-30	Sodium methyl cocoyl taurate	Biobased and bioadegradable Low aquatic toxicity Mild on skin	✓	✓	✓	✓
Aquanate™ LQ	Sodium lauroyl methyl isethionate	Biobased and biodegradable Low aquatic toxicity Meets 1,4-dioxane requirements	✓	✓	✓	✓
Flexisurf™ DDO-30	Dodecyl dimethylamine oxide	Contains at least 85% biorenewable carbon Non-GMO status FIFRA inert ingredient in non-food pesticides Applicable for low water & concentrated formats Meets 1,4-dioxane requirements	✓	✓	✓	✓
ECO Brij® L7L MBAL	Linear alcohol ethoxylate	Listed on the EPA's Safer Chemical Ingredients List (SCIL) and CleanGredients 100% biobased Biodegradable	✓	✓	✓	✓
ECO Diversaclean CS	Nonionic blend	Biobased and biodegradable USDA BioPreferred certified Meets 1,4-dioxane requirements				
ECO Tween® 20	Polysorbate 20	Listed on the EPA's Safer Chemical Ingredients List (SCIL) and CleanGredients 100% biobased Biodegradable	✓	✓	✓	✓
ELOTANT Milcoside 102 NB	Alkyl polyglucoside	Effective synergies with other surfactants Mildness to skin and hair Outstanding biodegradation Not derived from petroleum Listed on Cleangredients.org		✓		✓
ELOTANT Milcoside 200	Alkyl polyglucoside	Effective synergies with other surfactants Mildness to skin and hair Outstanding biodegradation Not derived from petroleum Listed on Cleangredients.org		✓	✓	✓
ELOTANT Milcoside 303 N	Alkyl polyglucoside	Effective synergies with other surfactants Mildness to skin and hair Outstanding biodegradation Not derived from petroleum Listed on Cleangredients.org		✓	✓	✓
ELOTANT Milcoside 520 SN	Alkyl polyglucoside	Sulfate free & Dioxane free Mildness to skin and eyes; safe for humans Outstanding biodegradation Not derived from petroleum Meets 1,4-dioxane requirements		✓	✓	✓
Rhodasurf® 91-8	Ethoxylated C9-11 alcohols	Listed on the EPA's Safer Chemical Ingredients List (SCIL) and CleanGredients Biodegradable Applicable for low water & concentrated formats	✓		✓	✓
Rhodasurf® 91-6	Ethoxylated alcohols	Listed on the EPA's Safer Chemical Ingredients List (SCIL) and CleanGredients Biodegradable Applicable for low water & concentrated formats	✓		✓	✓



barentz-na.com Always a better solution.

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