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Navigating Safer Choice

Stepan's CleanGredients®
Product & Formulation Guide





Stepan Company was honored to receive a 2017 U.S. EPA Safer Choice Partner of the Year Award in recognition of demonstrated leadership in furthering safer chemistry and products throughout the past year and promoting the new Safer Choice label.

What is Safer Choice?

The United States Environmental Protection Agency's (EPA) Safer Choice Program is one of the EPA's premier partnership programs, working with industry sectors to compare and improve the human health and environmental risks, as well as the performance and cost of existing and alternative products, processes and practices.

For more information visit www.epa.gov/saferchoice.

What is CleanGredients®?

CleanGredients® is an online database of chemical product ingredients that are used primarily to formulate household, institutional, and industrial cleaning products that have been preapproved to meet the U.S. EPA's Safer Choice Standard. CleanGredients® is a resource for formulators who are seeking chemical ingredients that will help them to obtain the Safer Choice label in a manner that reduces risk to their business, saves them money and gets their products to market faster.

For more information visit www.cleangredients.org.

What does the EPA's Safer Choice label on a product signify?

The label signifies that the Safer Choice review team has screened each ingredient in the product for potential human health and environmental effects and that—based on currently available information, predictive models, and expert judgment—the product contains only those ingredients that pose the least concern among chemicals in their class.

How does Stepan support the U.S. EPA Safer Choice Program?

Stepan was a key stakeholder in the development of the first ingredient screen for surfactants in association with the development of the CleanGredients database. In 2006, Stepan listed its first five ingredients. Since 2006, Stepan has listed over 30 surfactants approved for those customers seeking Safer Choice certification. Stepan upholds the U.S. EPA Safer Choice Program's mission to help safeguard human and environment health through the use of safer chemistry. The program involves an independent, third-party technical review as well as a U.S. EPA review of both ingredients and end use products against an established and publicly-available standard. As the EPA's website notes, "The Safer Choice label, backed by the scientific expertise and experience of EPA, provides the assurance many consumers seek. Companies that have invested in safer chemistry and earned the label have entered an expanding marketplace for sustainable products."

Source: www.epa.gov/saferchoice/frequently-asked-questions-safer-choice.

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For more information, visit:

- Stepan HI&I Market Page
- Environmental Protection Agency
- Safer Chemical Ingredient List
- Safer Choice
- CleanGredients[®]

Stepan's products listed in the CleanGredients® database can be used in a variety of household, institutional, and industrial cleaning applications. Click on the Stepan trademark to find out more about that product.

Squeaky Clean-ers

Cleaning power for greasy, oily soils



AMMONYX® LO

Lauramine oxide

Long lasting foam, Excellent degreasing, Self-preserved

AMPHOSOL® HCG-HP

Cocamidopropyl betaine Viscosity/Foam booster, Mild, Excess alkalinity preserved

AMPHOSOL® HCG-K

Cocamidopropyl betaine
Viscosity/Foam booster, Mild, CIT/MIT¹ preserved

BIO-SOFT® EC-639

C12-14 lauryl alcohol ethoxylate, POE-8 Naturally-derived, Easy to handle, High temp cleaning, HLB 13.3, CP² 73°C

BIO-SOFT® EC-690

C12-14 lauryl alcohol ethoxylate, POE-7 Naturally-derived, Easy to handle, General purpose, HLB 12.2, CP 51°C

BIO-SOFT® GSB-9

Nonionic Blend

More environmentally-friendly alternative with similar overall properties to NPE-9, HLB 13.3, CP 56°C

BIO-SOFT® N1-5

C11 alcohol ethoxylate, POE-5 Fast wetting, Moderate foam, Low pour point 6°C, HLB 11.2. CP 34°C

BIO-SOFT® N1-7

C11 alcohol ethoxylate, POE-7 Fast wetting, Low interfacial and surface tension, HLB 12.9, CP 58°C

BIO-SOFT® N1-9

C11 alcohol ethoxylate, POE-9 Good wetting, High solubility, General purpose, HLB 13.9, CP 83°C

BIO-SOFT® N25-7

C12-15 alcohol ethoxylate, POE-7 Excellent detergent, Low interfacial tension and CMC, HLB 12.2, CP 49°C

BIO-SOFT® N45-7

C14-15 alcohol ethoxylate, POE-7 High detergency, Moderate, stable foam, HLB 11.6, CP 46°C, MP³ 23°C

BIO-SOFT® N91-6

C9-11 alcohol ethoxylate, POE-6 Fast wetting, High foam, Low pour point 6°C, HLB 12.4, CP 53°C

BIO-SOFT® N91-8

C9-11 alcohol ethoxylate, POE-8 Fast wetting, High foam, High temp cleaning, HLB 13.9, CP 81°C

BIO-SOFT® N-600

C12-13 alcohol ethoxylate blend NPE replacement, I&I cleaning, Easy to handle, HLB 10.6, CP <25°C

BIO-SOFT® N-900

C9-11 alcohol ethoxylate blend NPE replacement, General purpose, Easy to handle, HLB 13.0, CP 64°C

BIO-SOFT® N-901

C9-11 and C12-13 alcohol ethoxylate blend NPE replacement, Degreasing, Easy to handle, HLB 12.0, CP 40°C

BIO-SOFT® N-1200

C9-11 and C12-15 alcohol ethoxylate blend NPE replacement, Fragrance solubilization, Dispersant, Easy to handle, HLB 13.5, CP 80°C

MAKON® DA-6

C10 branched alcohol ethoxylate
Fast wetting, Low pour point 6°C, Easy to handle,
HLB 12, CP 43°C
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 $^{^1\,\}mathrm{CIT/MIT} = \mathrm{Methylchloroisothiazolinone/Methylisothiazolinone}$

² CP = Cloud Point at 1% aqueous

³MP = Melting Point

Bubbly Primaries

Foamers to clean away particulate, dirt and grime



ALPHA-STEP® PC-48

Sodium methyl-2-sulfolaurate & Disodium 2-sulfolaurate Naturally-derived, High Foam, Multifunctional use in detergents, hand dish wash and personal care products, Great for counter top cleaners

BIO-SOFT® D-40

Sodium alkylbenzene sulfonate, linear & Sodium xylene sulfonate Neutralized version of BIO-SOFT® S-101 (DDBSA4), Wide pH range stability, Compatible with both hypochlorite and peroxide bleach, easy to handle liquid

BIO-SOFT® D-62 LT

Sodium alkylbenzene sulfonate, linear & Sodium xylene sulfonate All the benefits of BIO-SOFT® D-40 in a higher actives slurry

BIO-SOFT® S-101

C11.4 alkylbenzene sulfonic acid, linear DDBSA, Workhorse high foaming detergent, Provides flexibility if formulators want to neutralize

BIO-TERGE® AS-40K

Sodium C14-16 olefin sulfonate Very high foaming with fast wetting, Great for car wash and hand soaps, Wide pH range stability, CIT/MIT preserved

STEOL® CS-270 C

Sodium laureth sulfate, 2 moles EO Naturally-derived, High foaming in hard and soft water, Mild, Synergistic with other anionic surfactants. Versatile

STEPANOL® WA-EXTRA HP

Sodium lauryl sulfate Naturally-derived, High foam, Fast wetting, Compatible with hypochlorite bleach, Excess alkalinity preserved

STEPANOL® WA-EXTRA K

Sodium lauryl sulfate All the benefits of STEPANOL® WA-EXTRA HP. CIT/MIT preserved

STEPANOL® WA-EXTRA PCK

Sodium lauryl sulfate Naturally-derived, Better viscosity builder than STEPANOL® WA-EXTRA K, Great for personal care products, CIT/MIT preserved

Dry Characters

Dry, powdered, or tablet formulations

NACCONOL® 90G

Sodium dodecylbenzene sulfonate-linear Workhorse high foaming detergent, Wide pH range stability, Compatible with solid bleaches, High active dry powder, ideal for solid form cleaners and detergents

STEPANOL® DCFAS-N

Sodium coco-sulfate Naturally-derived, High dense foam, Fast wetting, Needle form for ease of handling

STEPANOL® ME-DRY

Sodium lauryl sulfate Naturally-derived, High foam, Fast wetting, Compatible with solid bleaches, High active dry powder ideal for solid form cleaners and detergents

Supporting Roles

Boost performance, build viscosity, increase mildness, generate foam



AMPHOSOL® CG-50

Cocamidopropyl betaine Naturally-derived, Mild, Boosts foam & viscosity, Higher active, Preservative-free

AMPHOSOL® HCA-HP

Cocamidopropyl betaine Naturally-derived, Mild, Boosts foam & viscosity, Excess alkalinity preserved

AMPHOSOL® HCG-HP

Cocamidopropyl betaine Naturally-derived, Mild, Boosts foam & viscosity, Includes natural moisturizer, Excess alkalinity preserved

AMPHOSOL® HCG-K

Cocamidopropyl betaine Naturally-derived, Mild, Boosts foam & viscosity, Includes natural moisturizer, CIT/MIT preserved

AMMONYX® LMDO

Lauramidopropylamine oxide Naturally-derived, Boosts foam & viscosity, Improves cleaning, Good wetting, Great for hand dishwash, Compatible with peroxide. Self-preserved

AMMONYX® LO

Lauramine oxide

Boosts foam & viscosity, Improves detergency, Fast wetting, Great for hard surface and laundry, Stable across wide pH range, Compatible with hypochlorite and peroxide bleach, Self-preserved

STEPAN-MILD® GCC

Glyceryl caprylate/caprate Naturally-derived, Mild, Foam and feel enhancer, Thickener, Structuring agent, Approved for non-TSCA applications such as hand soaps, Meets direct release screen

STEPAN-MILD® L3

Lauryl lactyl lactate Naturally-derived, Mild, Amide alternative, Provides viscosity and emolliency, Great for liquid dishwash and hand soaps

Harmonizers

Clarity, homogeneous solutions, Reduces cloud point, Improves film streak



ALPHA-STEP® PC-48

Sodium methyl-2-sulfolaurate & Disodium 2-sulfolaurate Naturally-derived, Promotes more fluid detergents, Viscosity control

BIO-TERGE® PAS-8S

Sodium octane sulfonate Lower foaming, Hydrotrope that adds cleaning power, Stable across wide pH range and compatible with hypochlorite and peroxide formulas

STEPANATE® SXS

Sodium xylene sulfonate Very low foam, Excellent hydrotrope, Stable across wide pH range and compatible with hypochlorite formulas

Soft Cuddlers

Fabric softening & Conditioning



STEPANTEX® SP-90

TEA ester quat

Vegetable-derived softening agent, Very good re-wetting, Non-yellowing to clothes, Readily biodegradable

STEPANTEX® VT-90

TEA ester quat

Tallow-derived softening agent, Very good re-wetting, Non-yellowing to clothes, Readily biodegradable

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⁴DDBSA = Dodecylbenzene sulfonic acid



Even though the biorenewable content of an ingredient is not a requirement for U.S. EPA Safer Choice certification, we understand our customers may have other criteria beyond Safer Choice when selecting an ingredient. Bio-content being one of them!

STEPANOL® DCFAS-N

Sodium coco-sulfate, BCI⁵ = 100 Dense foam, Fast wetting, High active dry needles

STEPANOL® ME-DRY

Sodium lauryl sulfate, BCI = 100 High foam, Fast wetting, High active dry powder

STEPANOL® WA-EXTRA HP

Sodium lauryl sulfate, BCI = 100 High foam, Fast wetting, Excess alkalinity preserved

STEPANOL® WA-EXTRA K

Sodium lauryl sulfate, BCI = 100 High foam, Fast wetting, CIT/MIT preserved

STEPANOL® WA-EXTRA PCK

Sodium lauryl sulfate, BCI = 100 Creamy foam, Fast wetting, CIT/MIT preserved

STEPAN-MILD® GCC

Glyceryl caprylate/caprate, BCI = 100 Meets direct release screen, Mild, Foam and feel enhancer, Structuring agent

STEPAN-MILD® L3

Lauryl lactyl lactate, BCI = 100 Boosts viscosity, Mild, Emollient, Moisturizer

ALPHA-STEP® PC-48

Sodium methyl-2-sulfolaurate & Disodium 2-sulfolaurate, BCI = 94 High foam, Multifunctional use, Mild

STEPANTEX® SP-90

TEA ester quat, BCI = 81
Vegetable derived softener, Readily biodegradable

STEPANTEX® VT-90

TEA ester quat, BCI = 81
Tallow derived softener, Readily biodegradable

STEOL® CS-270 C

Sodium laureth sulfate, 2 moles EO, BCI = 75 High foaming in hard and soft water, Mild

AMMONYX® LMDO

Lauramidopropylamine oxide, BCI = 72 Boosts foam & viscosity, Improves cleaning, Good wetting

AMPHOSOL® CG-50

Cocamidopropyl betaine, BCI = 64 Mild, Boosts foam & viscosity, Includes natural moisturizer, Preservative-free

AMPHOSOL® HCA-HP

Cocamidopropyl betaine, BCI = 64 Mild, Boosts foaming & viscosity, Excess alkalinity preserved

AMPHOSOL® HCG-HP

Cocamidopropyl betaine, BCI = 64 Mild, Boosts foaming & viscosity, Includes natural moisturizer, Excess alkalinity preserved

AMPHOSOL® HCG-K

Cocamidopropyl betaine, BCI = 64 Mild, Boosts foaming & viscosity, Includes natural moisturizer, CIT/MIT-preserved

BIO-SOFT® EC-690

C12-14 lauryl alcohol ethoxylate, POE-7, BCI = 46 Easy to handle, General purpose, HLB 12.2

BIO-SOFT® EC-639

C12-14 lauryl alcohol ethoxylate, POE-8, BCI = 42 Easy to handle, High temp cleaning, HLB 13.3

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Need a Place to Start?

Stepan's Safer Choice Approved Starter Formulations



These starter formulations allow Stepan to share learnings and insights gained from years of experience working with our third-party profiler and the U.S. EPA. Stepan developed these seven starter formulations in an effort to assist formulators that are either unfamiliar with the U.S. EPA Safer Choice Program or wish to save time, money, and/or resources to develop products and receive certification. Since these starter formulations have already been tested and reviewed against the Safer Choice standards, time to market for a Safer Choice-certified product is dramatically reduced. Use of these starter formulations also reduces the cost to the formulator since Stepan has already incurred the costs associated with formulation review.

Not seeing a formulation that meets your needs? Stepan is here to help. We can assist with ingredient recommendations to customize a formula to meet your performance and formulation criteria. Contact a Stepan North America Technical Service Representative at techsery@stepan.com or (800) 745-7837.

All Purpose Cleaner Concentrate

This low alkalinity concentrate can be diluted up to 1:24 to tackle any household general cleaning chore.

<u>Ingredients</u>	<u>% by weight</u>
Deionized Water	81.00
STEPANATE® SXS	5.00
BIO-SOFT® EC-639	4.00
Sodium Carbonate	5.00
Sodium Citrate	5.00

Procedure

- 1. Charge water and STEPANATE SXS.
- 2. With good agitation, slowly blend in BIO-SOFT EC-639.
- 3. Continue mixing until homogeneous.
- 4. Add sodium carbonate and sodium citrate.
- 5. Mix until homogeneous.

Properties

Appearance at 25°C Clear Liquid pH, as is 10.0 - 11.4 Viscosity at 25°C Water thin

Performance

1:12 Dilution 95% Soil Removal 1:16 Dilution 84% Soil Removal 1:24 Dilution 76% Soil Removal

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ASTM D4488-95

Based sources) divided by the number of total carbons in the idealized molecule.

⁵ BCI refers to the Biorenewable Carbon Index of the material. BCI is the number of biorenewable carbons (derived from plant, animal, or marine based sources) divided by the number of total carbons in the idealized molecule.

All Purpose Spray & Wipe Cleaner

This non-caustic all purpose spray and wipe cleaner can be used in every room of the house. Formula BCI = 80

<u>Ingredients</u>	% by weight
Deionized Water	94.25
STEPANOL® WA-EXTRA K or PCK	3.00
BIO-SOFT® EC-690	1.70
Kathon™ CG (Dow Chemical)	0.05
Sodium Citrate	1.00

Procedure

- 1. Charge water.
- 2. Begin agitation, add sodium citrate and blend in STEPANOL WA-EXTRA K or PCK.
- 3. Once clear, slowly add BIO-SOFT EC-690.
- 4. Blend in Kathon CG.
- 5. Mix until homogeneous.

Properties

Appearance at 25° C Clear Liquid pH, as is 7.0 - 8.5 Viscosity at 25° C Water thin

Performance

As is Use 100% Soil Removal

ASTM D4488-95

Bathroom Cleaner

This ready-to-use bathroom cleaner removes soap scum and grime from tubs, showers, tiles and sinks. It contains citric acid and an amine oxide to provide foam for product cling and soil removal.

<u>Ingredients</u>	<u>% by weight</u>
Deionized Water	91.00
AMMONYX® LO	5.00
Citric Acid	4.00

Procedure

- 1. Charge water.
- 2. With good agitation, add citric acid.
- 3. Blend in AMMONYX LO.
- 4. Mix until homogeneous.

Properties

Appearance at 25° C Clear Liquid pH, as is 2.0 - 3.5 Viscosity at 25° C Water thin

Performance:

Stepan Formula 3.3 Commercial Formulas 2.5 - 5.0

Stepan Method 250-C: Lime Soap Dispersing Power Scale: Larger number indicates greater dispersing power

Degreaser Concentrate

This low alkalinity concentrate can be used at full strength to blast through tough, aged grease and grime or dilute up to 1:32 for light soil loads.

<u>Ingredients</u>	% by weight
Deionized Water	54.00
STEPANATE® SXS	25.00
BIO-SOFT® EC-639	6.00
Sodium Carbonate	7.50
Sodium Citrate	7.50

Procedure

- 1. Charge water and STEPANATE SXS.
- 2. With good agitation, slowly blend in BIO-SOFT EC-639.
- 3. Continue mixing until homogeneous.
- 4. Add sodium carbonate and sodium citrate.
- 5. Mix until homogeneous.

Properties

Appearance at 25°C Clear Liquid pH, as is 10.0 - 11.4 Viscosity at 25°C Water thin

Performance

1:18 Dilution 95% Soil Removal 1:24 Dilution 84% Soil Removal 1:36 Dilution 76% Soil Removal

ASTM D4488-95

Kitchen Degreaser

This ready-to-use, non-caustic kitchen spray degreaser cuts through grease on stovetops and cooktop hoods.

Formula BCI = 88

<u>Ingredients</u>	% by weight
Deionized Water	96.00
BIO-SOFT® EC-639	0.50
Sodium Citrate	1.00
Dowanol™ PnB (Dow Chemical)	0.50
STEPANOL® WA-EXTRA K or PCK	2.00

Procedure

- 1. Charge water.
- 2. Begin agitation, add blend in Dowanol PnB, sodium citrate, and STEPANOL WA-EXTRA K or PCK.
- 3. Once clear, slowly add BIO-SOFT EC-639.
- 4. Mix until homogeneous.

Properties

Appearance at 25° C Clear Liquid pH, as is 7.0 - 8.5 Viscosity at 25° C Water thin

Performance

As is Use 82% Soil Removal

ASTM D4488-95

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Glass Cleaner Concentrate

Dilute this glass cleaner concentrate 1:9 with water to remove smears, smudges and dust on glass, mirrors, chrome and stainless steel surfaces while leaving a streak-free shine.

<u>Ingredients</u>	% by weight
Deionized Water	71.70
BIO-SOFT® EC-639	2.00
BIO-TERGE® PAS-8S	18.00
Isopropanol	8.30

Procedure

- 1. Charge water and BIO-TERGE PAS-8S.
- 2. With good agitation, slowly blend in BIO-SOFT EC-639.
- 3. Once clear, add isopropanol.
- 4. Mix until homogeneous.

Properties

Appearance at 25° C Clear Liquid pH, as is 2.0 - 3.5 Viscosity at 25° C Water thin Flash Point (PMCC) 52° C

Performance:

1:9 Dilution Tested

Filming Rating 9.6 out of 10 Streaking Rating 9.2 out of 10

Stepan Method 250-A: Hard Surface Cleaner Filming/ Streaking Evaluation

Glass Cleaner

This ready-to-use glass cleaner removes smears, smudges and dust on glass, mirrors, chrome and stainless steel surfaces while leaving a streak-free shine.

<u>Ingredients</u>	<u>% by weight</u>
Deionized Water	96.81
BIO-SOFT® EC-639	0.22
BIO-TERGE® PAS-8S	2.00
Isopropanol	0.92
Kathon™ CG (Dow Chemical)	0.05

Procedure

- 1. Charge water and BIO-TERGE PAS-8S.
- 2. With good agitation, slowly blend in BIO-SOFT EC-639.
- 3. Add isopropanol and Kathon CG.
- 4. Mix until homogeneous.

Properties

Appearance at 25° C Clear Liquid pH, as is 4.5 - 6.5 Viscosity at 25° C Water thin Flash Point (PMCC) >94° C

Performance:

Filming Rating 9.6 out of 10 Streaking Rating 9.2 out of 10

Stepan Method 250-A: Hard Surface Cleaner Filming/ Streaking Evaluation

Frequently Asked Questions

What criteria are used to evaluate an ingredient and an end use product?

The first document you should review is the Safer Choice Standard which identifies the requirements that both ingredients and end use products must meet to earn the Safer Choice label. In addition, there are the Master Criteria for Safer Ingredients and various Functional-Class Criteria. These documents define the characteristics and toxicity thresholds for ingredients that are acceptable in Safer Choice products. The U.S. EPA also provides guidance on ingredient disclosure and packaging. Further information can be found at www.epa.gov/saferchoice/standard.

What is the advantage of using an ingredient listed on the CleanGredients® database?

All ingredients will be reviewed by a third-party profiler and the U.S. EPA against a stringent set of health and environmental criteria. A product is only allowed to carry the Safer Choice label if each ingredient is among the safest in its ingredient class. Additionally, the product as a whole has to meet safety criteria, qualify as high-performing and be packaged in an environmentally-friendly manner. It is at the discretion of the ingredient suppliers to showcase a particular ingredient on www.cleangredients.org. The advantage to formulators is that these ingredients have been preapproved by the U.S. EPA as meeting the Safer Choice standards. Therefore, a formulator is assured that the particular ingredient in question has passed the EPA's review and a formulator will have reduced costs associated with review of that particular ingredient. There are other fees associated with an end use product review, but using an ingredient that is listed on CleanGredients can help reduce the cost to a formulator in obtaining a Safer Choice certification.

Can I use an ingredient not listed on CleanGredients®?

Yes. However, each ingredient will need to be reviewed by a third-party profiler and the U.S. EPA. The advantage of referencing a pre-approved ingredient is that you know it has already been reviewed and this can help reduce the cost associated with the end-use product review. You may also consider referencing the <u>Safer Chemical Ingredient List</u> (SCIL). This is a list of chemical ingredients, arranged by functional-use class that the Safer Choice Program has evaluated and determined to be safer than traditional chemical ingredients. This list is designed to help manufacturers find safer chemical alternatives that meet the criteria of the Safer Choice Program. This list is not intended to be exclusive. A third-party profiler and the U.S. EPA will still review and charge a fee, even if the ingredient is found on the SCIL.

The Safer Chemical Ingredient List (SCIL) lists ingredients by chemical name. Can I use any company's product?

When seeking U.S. EPA Safer Choice approval, you will be required to reference each ingredient by trade name, supplier name and chemical description. If you intend to reference more than one supplier for the same ingredient, the U.S. EPA requires a formulator to document each unique trade name/supplier name on the formulation information submission in the Safer Choice Community, the online portal used by the third-party profilers and Safer Choice to manage submissions. Each unique trade name is reviewed separately and each unique trade name is charged a separate fee for review. Even if a surfactant active has the identical chemical name and CAS number as another supplier, the processing and potential residual, impurities or by-products may vary between suppliers. The U.S. EPA takes this into account in their review.

Once my product is approved for the Safer Choice label, is it good forever?

No. Improvements in chemistry choices are happening all the time and Safer Choice adapts their criteria to stay current with the best options. Every three years your product must be re-reviewed against the currently-approved standard(s).

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Frequently Asked Questions (cont.)

What does it mean to be a U.S. EPA Safer Choice Partner of the Year?

The U.S. EPA recognizes program participants who demonstrate leadership in furthering safer chemistry and products and promoting the new Safer Choice label.

Program participants submit an application and are evaluated based on the following five criteria:

- 1. Participation in the Safer Choice program
- 2. Use of the Safer Choice label
- 3. Promotion and use of products using the Safer Choice label
- 4. Outreach and education on the Safer Choice program to consumers and end-users
- 5. Innovations in safer chemistry and other efforts to advance the Safer Choice program

Stepan is proud to say that we filed an application in 2015 and 2017 for a U.S. EPA Safer Choice Partner of the Year Award and in both years, were selected as winners of the Partner of the Year award along with other deserving award winners.

There are many eco-labels in the marketplace. How is the Safer Choice Program different?

According to the U.S. EPA, the Safer Choice's labeling program is different from other eco-labels in that: "First, we are focused on chemistry and identifying safer chemicals. Our approach to product review is grounded in EPA's more than 40 years of experience in evaluating the human health and environmental characteristics of chemicals. This expertise enables us to go beyond established lists of 'bad actor' chemicals and to use expert judgment to determine the likely health and environmental hazards of chemicals that haven't been widely studied. Second, we look at a full set of health and environmental endpoints based on a range of data, experimental and modeled, and expert judgment. Finally, we work closely with companies to help them find safer chemicals for their products."

Source: https://www.epa.gov/saferchoice/frequently-asked-guestions-safer-choice

Is Safer Choice related to the USDA's BioPreferred® Program?

No. The BioPreferred Program is managed by the U.S. Department of Agriculture (USDA), with the goal to increase the purchase and use of U.S. bio-based products. This program has a mandatory purchasing requirement for federal agencies and their contractors and a voluntary labeling initiative. For more information, please go to the BioPreferred website.

Where can I find more information?

<u>EPA's Safer Choice website</u> has the Safer Choice program history, standards, compliance schedules, an FAQ webpage, the EPA's SCIL ingredient list, packaging guidance and more.

Stepan® product samples can be ordered through the Stepan website at www.stepan.com.

For further information, contact a Stepan North American Technical Service Representative at techserv@stepan.com or (800) 745-7837.

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