BEYOND PESTICIDES
701 E Street, SE ■ Washington DC 20003
202-543-5450 phone ■ 202-543-4791 fax
info@beyondpesticides.org ■ www.beyondpesticides.org

October 26, 2015

Ms. Michelle Arsenault
National Organic Standards Board
USDA-AMS-NOP
1400 Independence Ave. SW.,
Room 2648-S, Mail Stop 0268
Washington, DC 20250-0268

Re. CS: "Inerts" in Organic Production Must be Reviewed by the NOSB

These comments to the National Organic Standards Board (NOSB) on its fall 2015 agenda are submitted on behalf of Beyond Pesticides. Founded in 1981 as a national, grassroots, membership organization that represents community-based organizations and a range of people seeking to bridge the interests of consumers, farmers and farmworkers, Beyond Pesticides advances improved protections from pesticides and alternative pest management strategies that reduce or eliminate a reliance on pesticides. Our membership and network span the 50 states and the world.

So-called "inert ingredients" must be evaluated by the National Organic Standards Board (NOSB) for inclusion on the National List. The proposal by the Crops and Livestock Subcommittees to abdicate responsibility for the review of these chemicals is unacceptable to organic consumers, contrary to the Organic Foods Production Act (OFPA), and inconsistent with past actions of the NOSB. In these comments, we look more closely at EPA Lists 4A, 4B, and Safer Chemical Ingredient List.

"Inerts" are not inert. They are ingredients in pesticide formulations for which no pesticidal claims are made. Many are toxic. Some are even active ingredients in other pesticide formulations. "Inerts" often make up more than 90% of a product.

Active ingredients in pesticide products have been carefully screened to ensure that they meet the requirements of OFPA. Because of the thorough investigation by the NOSB and the additional scrutiny given by the public in written and oral comments, for the most part, the active ingredients that are allowed in organic agriculture present little hazard to people and ecosystems, from their manufacture through their use and disposal.

So-called "inert" ingredients, on the other hand, do not receive, as intended and recommended by previous NOSB action, the same level of scrutiny as actives, to ensure that they meet OFPA standards. Many pesticide product formulations are composed mostly of "inert" ingredients. As a result, the most hazardous part of pesticide products used in organic production may actually be the so-called "inert" ingredients.

Avoiding comprehensive review of inerts review may have a significant negative effect on public perception of the organic label and its ability to provide non-toxic alternatives in food and agriculture systems.

Historical Background

List 4 does not address OFPA criteria.

The list system was devised by the U.S. Environmental Protection Agency (EPA) in 1987 as a temporary way of responding to a need to evaluate the toxicity of "inerts." The policy established four categories of toxicological concern for the inert ingredients in existence at that time:

- **List 1: Inert Ingredients of Toxicological Concern.** Classified on the basis of peer-reviewed studies which demonstrated carcinogenicity, adverse reproductive effects, neurotoxicity or other chronic effects, developmental toxicity (birth defects), ecological effects or the potential for bioaccumulation.
- **List 2: Potentially Toxic Other Ingredients/High Priority for Testing.** Many List 2 inert ingredients are structurally similar to chemicals known to be toxic; some have data suggesting a concern.
- **List 3: Inerts of unknown toxicity.** An inert ingredient was placed on List 3 if there was no basis for listing it on any of the other lists.
- **List 4: Minimal risk inert ingredients.** The determination that a chemical is minimal risk would be based on a recognition of the overall safety of the chemical (such as very low toxicity or practically non-toxic) considering the widely available information on the chemical's known properties, and a history of safe use under reasonable circumstances.

In 1989, List 4 "Inerts of Minimal Concern" was subdivided into List 4A and List 4B.[1]

- **Minimal risk (List 4A)** substances are recognized as safe for use in all pesticide products subject only to good agricultural or good manufacturing practices since the Agency does not establish any restrictions on use patterns (how, where, when or in what manner the substance can be used) or limit the amount of a List 4A chemical substance that can be used as an inert ingredient in a pesticide product.
- **List 4B: Other ingredients for which EPA has sufficient information to reasonably conclude that the current use pattern in pesticide products will not adversely affect public health or the environment**. In making a List 4B determination, the Agency evaluates not only the toxicity of the chemical substance, but also considers the particular exposures that could occur and the need for any restrictions.
- The two critical distinctions between List 4A minimal risk substances and List 4B substances, are that while the Agency does not establish a use pattern or use limitation for a List 4A chemical substance, a List 4B may have such restrictions. Also, List 4 chemicals that are chemicals of higher acute toxicity are generally classified as List 4B,

[1] Language taken verbatim from EPA website. http://www.epa.gov/opprd001/inerts/oldlists.html.

so that the Agency can evaluate the labeling and require the use of protective equipment. The substances on List 4B have no relevance to the provisions in FIFRA 25(b) for deregulated or exempted products.

The authors of OFPA intended for individual "inerts" to be reviewed.

OFPA says:

> §6518(l) REQUIREMENTS. In establishing the proposed National List or proposed amendments to the National List, the Board shall-
> … (2) work with manufacturers of substances considered for inclusion in the proposed National List to obtain a complete list of ingredients and determine whether such substances contain inert materials that are synthetically produced.

The Senate Report[2] said,

> Until such time as FIFRA is altered to require the full disclosure of inert ingredients, organic farmers should be allowed to continue using compounded substances if the active ingredient is natural and if use of the substance is recommended by the National Organic Standards Board and approved by the Secretary for inclusion on the National List. However, in order for the National Organic Standards Board to evaluate whether certain compounds should be listed, the Board will need some information about the inert ingredients in question. The Committee directs the Board to seek the advice of the Administrator of the EPA, who has information on inert ingredients submitted as part of registration, as to whether such inert material would be appropriate for organic production. EPA's response will not limit its regulatory responsibility for such material.

"Inert ingredient" is code for "secret ingredient." So-called "inerts" do not need to be disclosed on the label, but a 1996 lawsuit by Beyond Pesticides (then the National Coalition Against the Misuse of Pesticides) and the Northwest Center for Alternatives to Pesticides (then the Northwest Coalition for Alternatives to Pesticides) required EPA to release identity of "inerts" requested by the organizations under FOIA.

The NOSB has repeatedly, since 1995, voted to review individual "inert" ingredients.

In 1995 two motions were passed by the NOSB:

- The NOSB will make every effort to review synthetic inert ingredients for their appropriateness in organic production systems. The NOSB will work with manufacturers of inert substances to obtain full disclosure. The process will take place after the proposed national list and its subsequent Federal Register publication. (Passed 10-4.)
- Inerts on the EPA List 4 are generally considered to be recognized as safe and will be accepted for organic production, <u>unless</u> an NOSB evaluation finds a specific List 4 inert to be unacceptable. Inerts proposed for organic production on EPA's List 2, which are potentially toxic, and List 3, which are unknown, will be compiled by the NOSB and

[2] Report of the Committee on Agriculture, Nutrition, and Forestry, United States Senate to Accompany S. 2830. July 6, 1990. P. 249.

forwarded to the EPA as materials for fast-track review and possible reclassification. (Passed as "a resolution.")

List 4 has not been maintained since 2004. In 2006 the EPA completed reassessments of inert ingredients used in pesticide products to ensure that they meet standards under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), and EPA officially notified the NOP that the Inerts List referenced in the NOP regulations is now considered obsolete and no longer in effect.

In Spring 2010, the NOSB passed a recommendation saying:

> "The NOSB needs to review all inert ingredient components used in current NOP compliant pesticide formulations for consideration for inclusion on the National List of Allowed Materials on 205.601." "The NOSB requests that the NOP create and enter into a Memorandum Of Understanding (MOU) with the EPA to assist in the evaluation of the materials previously known as both EPA List 4, inerts of minimal concern and EPA List 3, inerts of unknown toxicity allowed. This MOU should serve as the platform for an implementation strategy that may include an official task force or some other structure to achieve the following objectives." [Following: plan of action.] Passed 13 yes, 1 no.

And in Fall 2010:

> "Following the recommendation of the Board at the Spring 2010 meeting regarding these materials, it is recommended that we relist EPA List 4 inerts pending review by the program of inerts individually and as a class of materials. To allow these materials to sunset at this point would be too disruptive to the industry."

In Fall 2012, the NOSB unanimously passed a recommendation calling for a change in the listing for List 4 "inerts":

> Replace the language at sections 205.601(m) and 205.603(e) with:
>
> > As synthetic other ("inert") ingredients in pesticide formulations as classified by the Environmental Protection Agency (EPA) for use with nonsynthetic substances or synthetic substances listed in this section that are used as an active pesticide ingredient in accordance with any limitations on the use of such substances.
> > (i) Substances permitted for use in minimal risk products exempt from pesticide registration under FIFRA section 25(b);
> > (ii) Reserved (for list of approved other ("inert") ingredients)

Although the NOP has still not published a request to formulators to help identify the "inerts" in products used in organic production, the Inerts Working Group (IWG) learned, with the help of OMRI and the Washington State Department of Agriculture, of the identity of 126 synthetic "inerts" used in organic production.

Lists 4A and 4B

OFPA §6517(c)(1)(B)-(C) says:

> The National List may provide for the use of substances in an organic farming or handling operation that are otherwise prohibited under this chapter only if—
>
> (B) the substance—
>
> (i) is used in production and contains an active synthetic ingredient in the following categories: copper and sulfur compounds; toxins derived from bacteria; pheromones, soaps, horticultural oils, fish emulsions, treated seed, vitamins and minerals; livestock parasiticides and medicines and production aids including netting, tree wraps and seals, insect traps, sticky barriers, row covers, and equipment cleansers; or
>
> ii) is used in production and contains synthetic inert ingredients that are not classified by the Administrator of the Environmental Protection Agency as inerts of toxicological concern; and
>
> (C) the specific exemption is developed using the procedures described in subsection (d).

Subsection (B)(ii) of the above excerpt establishes eligibility to list "inerts" that are not of toxicological concern, but does not say that all such substances must be listed –and is analogous to Subsection (B)(i), which lists categories of active synthetic materials that are eligible for listing. Subsection (C) says that the substances, both "inert" and "active," may be added to the National List only after a process that includes a recommendation from the NOSB and public notice and comment. The process is further described in §6518 (l) and (m).

"Inerts of toxicological concern" were previously (improperly) defined as those inerts on the former EPA Lists 1, 2, and 3. EPA List 4B as well as List 4A inerts were included on the National List. Thus, the NOSB and NOP have been allowing chemicals known to be toxic, but judged to be low-risk by EPA's pesticide program because of low exposure. This is insupportable because OFPA criteria are broader –including, for example, hazards to the soil and hazards of manufacture and disposal. EPA has not updated the lists of "inerts" since 2004, although tolerances have been revoked for ten chemicals on List 4.

The listing for List 4 "inerts" allows 253 materials on the former List 4A, plus 630 on the former List 4B to be used in organic production, minus the 10 with revoked tolerances, gives a total of 873 substances. Although many of these are nonsynthetic –the exact number might be determined by NOSB or MRO review, but we estimate 21%—there are still many synthetic substances that have been allowed for use as "inert" ingredients without NOSB review against OFPA criteria. For anyone concerned about appearances, the list of 873 is much scarier than the list of 126 known to be used in organic production, which was presented to the public by the Crops Subcommittee in 2012.

Safer Chemical Ingredient List (SCIL)

EPA's Design for the Environment (DfE) program, recently renamed as Safer Choice Program (SCP), has criteria for listing chemicals on its Safer Chemical Ingredients List (SCIL) that overlap with, but are not the same as, OFPA criteria. However, EPA has stated in the past that it may be able through SCP, to evaluate to OFPA criteria.

There are differences between asking EPA to evaluate to OFPA criteria and accepting an inert because it is listed on the SCIL:

- Evaluating to OFPA criteria would be part of a transparent OFPA review system, the same that is used for other materials, with the SCP review taking the place of a technical review.
- Accepting materials on the SCIL would not publicly reveal the secret ingredients used in organic production.
- Accepting materials on the SCIL would not guarantee that the materials meet all OFPA criteria.

The SCIL contains 725 chemicals, some of which are listed in more than one of the 14 categories:

- Antimicrobial Actives
- Colorants
- Enzymes and Enzyme Stabilizers
- Oxidants and Oxidant Stabilizers
- Preservatives and Antioxidants
- Solvents
- Surfactants
- Chelating Agents
- Defoamers
- Fragrances
- Polymers
- Processing Aids and Additives
- Specialized Industrial Chemicals
- Uncategorized

The chemicals on the SCIL are mostly –about 92%-- synthetic. Since it is known that 126 “inerts” are currently used in organic production, the CS/LS proposed annotation that would rely on the SCIL for "inerts" would allow at least 599 more chemicals than those currently used. These have not been, and would not be under the proposal, reviewed by the NOSB to be used as "inerts" in organic production.[3] Since the CS, through the IWG, knows the identity of the 126 “inerts” currently used in organic production, it should provide a list of the new chemicals that will be allowed. The CS has not revealed how many of the 126 “inerts” now used in organic production are on the SCIL. Under the subcommittee proposal, any others would need to be petitioned under the CS/LS proposal. The identities of the 126 “inerts” known to be used in organic production should be made public as part of this discussion. This information is not protected as proprietary or secret, since the identity of “inerts” is not connected with particular products.

Before proceeding with a recommendation to use the SCIL as the sole criterion for allowing “inerts” in organic production, the NOSB must address the following issues, which raise compliance issues with OFPA. Until the Board addresses these issues fully, it is inappropriate to adopt the recommendation of the Crops Subcommittee:

- The SCIL does not require the public notice and comment that is required to put something on the National List.[4]

[3] As of this writing, the last update to the list was September 22, 2015.
[4] http://www2.epa.gov/saferchoice/how-list-chemical-safer-chemical-ingredients-list.

- There is not a process proposed for delisting from the SCIL. The public process under OFPA procedures provide producers and producers of products used in organic production with notification of pending NOSB and NOP action, but the CS proposal does not address delisting. How much time would formulators have to reformulate in the case of delisting?
- The SCIL process, with its lack of the orderly process provided by regulation, may disrupt markets for products used in organic production.
- The subcommittees have not shared the list of List 4 chemicals that are on the SCIL.
- New "inert" ingredients must be reviewed against OFPA criteria, as has always been recommended by the NOSB. The standards must be compatible with required administrative procedures, and the NOSB must determine whether the application of different standards to current and future listing decisions meets that requirement.

Thus, in many respects, the CS/LS proposal is worse than the status quo. The status quo depends on a static list, but the dynamic SCIL is growing, adding more and more synthetic chemicals that would be candidates for use in organic production. The 599 more that would be allowed by this proposal are mostly (92%) synthetic, compared to the large number of nonsynthetics in the current Lists 4A and 4B –altogether we estimate 21% are nonsynthetic (4A is 41%; 4B is 13% nonsynthetic). Again, for anyone concerned about appearances, the list of 725 mostly synthetic chemicals that could be used under this proposal is much scarier than the list of 126 known to be used in organic production. And the list is growing, at a rate and in a way that is not under the control of the NOSB or NOP.

It is also important to remember in referring to the Safer Chemical Ingredients List that the SCIL has four categories. If the NOSB recommends listing as an "inert" anything on the SCIL, it is recommending substances that may be categorized as *any one* of the following:[5]

> **1 Green circle** - The chemical has been verified to be of low concern based on experimental and modeled data.
>
> **2 Green half-circle** - The chemical is expected to be of low concern based on experimental and modeled data. Additional data would strengthen our confidence in the chemical's safer status.
>
> **3 Yellow triangle** - The chemical has met Safer Choice Criteria for its functional ingredient-class, but has some hazard profile issues. Specifically, a chemical with this code is not associated with a low level of hazard concern for all human health and environmental endpoints. (See Safer Choice Criteria). While it is a best-in-class chemical and among the safest available for a particular function, the function fulfilled by the chemical should be considered an area for safer chemistry innovation.

[5] Quoted from EPA at http://www2.epa.gov/saferchoice/safer-ingredients.

4 ▢Grey square - This chemical will not be acceptable for use in products that are candidates for the Safer Choice label and currently labeled products that contain it must reformulate per Safer Choice Compliance Schedules.

Thus, this recommendation would approve of chemicals as "inerts" if they are only "expected" to be of low concern, if they present hazards to humans and the environment, or if they will not be acceptable for use in Safer Choice products. The universe of substances that would be available for use as "inerts" in organic production without review by the NOSB according to OFPA criteria includes 493 (64.5%) rating a green circle, 66 (8.6%) with a green half-circle, 201 (26.3%) with a yellow triangle, and 4 (0.5%) with a grey square. Given the definitions above, more than a quarter could be expected **not** to meet OFPA criteria based on the SCIL ratings alone. In view of this fact, listing on the SCIL cannot be used as an indicator of how well a substance meets OFPA criteria.

Conclusion

The NOSB must reject the annotation proposed by the CS and LS, and begin review in accordance with the NOSB recommendation of fall 2012.

Thank you for your consideration of these comments.

Sincerely,

Terry Shistar, Ph.D.
Board of Directors

Attachment: EPA's Safer Chemical Ingredient List

EPA's Safer Chemical Ingredient List

Antimicrobial Actives

Common Name	CAS Registry Number
Citric acid, anhydrous	77-92-9
Ethanol	64-17-5
Hydrogen peroxide	7722-84-1
Isopropanol	67-63-0
L-Lactic acid	79-33-4
Peracetic acid	79-21-0

Chelating Agents

Common Name	CAS Registry Number
2-Butenedioic acid (2Z)-, ammonium salt (1:?), homopolymer, hydrolyzed, sodium salts	181828-06-8
Alanine, N,N-bis(carboxymethyl)-, sodium salt (1:3)	164462-16-2
Aspartic acid, N-(1,2-dicarboxyethyl)-, tetrasodium salt	144538-83-0
Citric acid, anhydrous	77-92-9
D-Gluconic acid	526-95-4
D-glycero-D-gulo-Heptonic acid, calcium salt (2:1)	17140-60-2
D-glycero-D-gulo-Heptonic acid, monosodium salt	13007-85-7
Dipotassium hydrogen citrate	3609-96-9
L-Lactic acid	79-33-4
Monosodium D-glucoheptonate	31138-65-5
N,N'-Ethylenediamine disuccinic acid	20846-91-7
Potassium citrate, anhydrous	866-84-2
Potassium citrate, monohydrate	6100-05-6
Sodium citrate, anhydrous	68-04-2
Sodium citrate, dihydrate	6132-04-3
Sodium ethylene diamine disuccinate	178949-82-1
Sodium gluconate	527-07-1
Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate	51981-21-6

Colorants

Common Name	CAS Registry Number
2-Anthracenesulfonic acid, 1-amino-9,10-dihydro-4-[(4-methoxyphenyl)amino]-9,10-dioxo-, sodium salt (1:1)	63589-10-6
C.I. 75810	11006-34-1
C.I. Acid Blue 145	6408-80-6
C.I. Acid Blue 25	6408-78-2
C.I. Acid Blue 40	6424-85-7
C.I. Acid Blue 80	4474-24-2
C.I. Acid Blue 93	28983-56-4
C.I. Acid Brown 14, disodium salt	5850-16-8
C.I. Acid Green 1	19381-50-1
C.I. Acid Orange 24, monosodium salt	1320-07-6
C.I. Acid Red 14	3567-69-9
C.I. Acid Red 289	12220-28-9
C.I. Acid Red 52	3520-42-1
C.I. Acid Violet 34	6408-63-5
C.I. Acid Violet 43	4430-18-6
C.I. Acid Violet 48	72243-90-4
C.I. Acid Violet 54	70210-05-8
C.I. Acid Yellow 17	6359-98-4
C.I. Direct Blue 86	1330-38-7
C.I. Direct Orange 26	3626-36-6
C.I. Fluorescent Brightener 220	16470-24-9
C.I. Fluorescent Brightener 28, sodium salt	4193-55-9
C.I. Fluorescent Brightening Agent 28	4404-43-7
C.I. Food Red 1	4548-53-2
C.I. Natural Brown 10	8028-89-5
C.I. Pigment Blue 15	147-14-8
C.I. Pigment Green 7	1328-53-6
C.I. Solvent Green 7	6358-69-6
C.I.Direct Blue 199	63950-02-7
Copper phthalocyanine, sulfamoyl sulfo derivs., sodium salts	90295-11-7
D&C Green No. 5	4403-90-1
D&C Red No. 33	3567-66-6

Common Name	CAS Registry Number
FD&C Blue No.1	3844-45-9
FD&C Blue No.1, PEG Derivative	9079-33-8
FD&C Green No. 3	2353-45-9
FD&C Red 40	25956-17-6
FD&C Yellow No. 5	1934-21-0
FD&C Yellow No. 6	2783-94-0
FD&C Yellow No. 6-aluminum lake	15790-07-5
Fluorescent Brightener 230	27344-06-5
FWA-1	16090-02-1
Titanium (IV) oxide	13463-67-7

Defoamers

Common Name	CAS Registry Number
2-Methyloctanoic acid	3004-93-1
Alcohols, C10-12, ethoxylated propoxylated	68154-97-2
Bentonite	1302-78-9
Dimethyl silicone polymer with silica	67762-90-7
Poloxalene	9003-11-6
Polydimethylsiloxane, hydroxy-terminated	70131-67-8
Polydimethylsiloxanes (*Yellow based on some concern for aquatic toxicity. Allowed to provide functionality.)	63148-62-9
Polyethylene glycol stearate	9004-99-3
Polynoxylin	9011-05-6
Propylene oxide ethylene oxide polymer, ether with glycerol (3:1)	9082-00-2
Siloxanes and Silicones, di-Me, 3-hydroxypropyl Me, ethoxylated propoxylated (*Yellow based on some concern for aquatic toxicity. Allowed to provide functionality.)	68937-55-3
Siloxanes and Silicones, di-methyl, hydroxy-terminated, reaction products with chlorotrimethylsilane, hydrochloric acid, iso-Pr alc. and sodium silicate	68440-70-0

Enzymes and Enzyme Stabilizers

Common Name	CAS Registry Number
1,2-Propanediol	57-55-6

Common Name	CAS Registry Number
Alpha-amylase	9000-90-2
Amylase	9000-92-4
Amylase bacterial	9000-85-5
Borax (*Only allowed as a protease stabilizer.)	1303-96-4
Boron sodium oxide (*Only allowed as a protease stabilizer.)	1330-43-4
Calcium chloride, anhydrous	10043-52-4
Calcium chloride, dihydrate	10035-04-8
Calcium formate	544-17-2
Cellulase	9012-54-8
DL-Methionine	59-51-8
Hydratase, phosphoenolpyruvate	9014-08-8
Mannanase, endo-1,4-beta-	37288-54-3
Orthoboric acid (*Only allowed as a protease stabilizer.)	10043-35-3
Polygalacturonase	9032-75-1
Proteinase	9001-92-7
Rizolipase	9001-62-1
Sodium formate	141-53-7
Subtilisins	9014-01-1

Fragrances

Common Name	CAS Registry Number
Verdyl acetate (*Lacks sufficient sensitization data, see above.)	5413-60-5
Verdox (*Lacks sufficient sensitization data; repeat dose toxicant. See above.)	88-41-5
Vanillyl acetone (*Lacks sufficient sensitization data, see above.)	122-48-5
Vanillin	121-33-5
Undecanal, 2-methyl- (*Known sensitizer, see above.)	110-41-8
Undecanal (*Known sensitizer, see above.)	112-44-7
Triethyl citrate (*Known sensitizer, see above.)	77-93-0
Tricyclodecenyl propionate (*Lacks sufficient sensitization data, see above.)	17511-60-3
trans-3-Hexenol (*Lacks sufficient sensitization data, see above.)	928-97-2
Tetrahydrolinalool (*Known sensitizer, see above.)	78-69-3
Terpinyl acetate	80-26-2

Common Name	CAS Registry Number
Terpinolene (*Known sensitizer, see above.)	586-62-9
Terpineol acetate	8007-35-0
Terpineol (mixed isomers)	8000-41-7
Sweet orange oil (*Known sensitizer, see above.)	8008-57-9
Scentenal (*Known sensitizer, see above.)	86803-90-9
Sandalore	65113-99-7
Propanoic acid, 2-methyl-, 3a,4,5,6,7,7a-hexahydro-4,7-methano-1H-inden-6-yl ester (*Lacks sufficient sensitization data, see above.)	68039-39-4
Propanoic acid, 2-methyl-, 3a,4,5,6,7,7a-hexahydro-4,7-methano-1H-inden-5-yl ester (*Lacks sufficient sensitization data, see above.)	67634-20-2
para-Ethyl-alpha,alpha-dimethyl-hydrocinnamaldehyde (*Lacks sufficient sensitization data; repeat dose toxicant. See above.)	67634-14-4
Oxirane, 2,2-dimethyl-3-(3-methyl-2,4-pentadien-1-yl)- (*Lacks sufficient sensitization data, see above.)	69103-20-4
Oxacyclohexadecan-2-one	106-02-5
Oxacyclohexadec-13-en-2-one, (13Z)- (*Known sensitizer, see above.)	111879-81-3
Oxacyclohexadec-13-en-2-one, (13E)- (*Known sensitizer, see above.)	99219-32-6
Oxacyclohexadec-12-en-2-one, (12Z)- (*Known sensitizer, see above.)	111879-79-9
Oxacyclohexadec-12-en-2-one, (12E)- (*Known sensitizer, see above.)	111879-80-2
Oxacycloheptadecan-2-one	109-29-5
Octyl acetate (*Lacks sufficient sensitization data, see above.)	112-14-1
Octanal (*Known sensitizer, see above.)	124-13-0
Nonanal (*Known sensitizer, see above.)	124-19-6
Naphthalene, 2-methoxy- (*Lacks sufficient sensitization data, see above.)	93-04-9
Naphthalene, 2-ethoxy- (*Lacks sufficient sensitization data, see above.)	93-18-5
Myrcenol	543-39-5
Muskonate	54982-83-1
Methylionone (*Known sensitizer; repeat dose toxicant. See above.)	1335-46-2
Methyl undecylenate (*Repeat dose toxicant, see above.)	111-81-9
Methyl dihydrojasmonate	24851-98-7
Methyl delta ionone (*Known sensitizer; repeat dose toxicant. See above.)	79-89-0
Methyl benzoate (*Lacks sufficient sensitization data, see above.)	93-58-3
Methyl 2-nonynoate (*Known sensitizer, see above.)	111-80-8

Common Name	CAS Registry Number
Methyl 2-nonenoate (*Lacks sufficient sensitization data, see above.)	111-79-5
Menthol, racemic (*Known sensitizer, see above.)	89-78-1
Menthol (unspecified isomer) (*Known sensitizer, see above.)	1490-04-6
Melonal (*Known sensitizer; repeat dose toxicant. See above.)	106-72-9
Linalyl acetate (*Known sensitizer, see above.)	115-95-7
Linalool (*Known sensitizer, see above.)	78-70-6
Ligustral (*Known sensitizer; repeat dose toxicant. See above.)	68039-49-6
L-Menthol (*Known sensitizer, see above.)	2216-51-5
l-Carvone (*Known sensitizer; repeat dose toxicant. See above.)	6485-40-1
Jasmone (*Lacks sufficient sensitization data, see above.)	488-10-8
Jasmin pyranol	38285-49-3
Jasmal	18871-14-2
Isopulegol (*Repeat dose toxicant, see above.)	89-79-2
Isopropylphenylbutanal (*Lacks sufficient sensitization data; repeat dose toxicant. See above.)	125109-85-5
Isocyclocitral (*Known sensitizer; repeat dose toxicant. See above.)	1335-66-6
Isobutyl salicylate (*Known sensitizer, see above.)	87-19-4
Isobutyl acetate	110-19-0
Isoamyl salicylate (*Known sensitizer; repeat dose toxicant. See above.)	87-20-7
Isoamyl butyrate (*Lacks sufficient sensitization data, see above.)	106-27-4
Isoamyl acetate	123-92-2
Ionone (*Known sensitizer; repeat dose toxicant. See above.)	8013-90-9
Indole (*Lacks sufficient sensitization data; repeat dose toxicant. See above.)	120-72-9
Hydroxycitronellal (*Known sensitizer; repeat dose toxicant. See above.)	107-75-5
Hexyl Salicylate (*Known sensitizer; repeat dose toxicant. See above.)	6259-76-3
Hexyl acetate	142-92-7
Hexanoic acid, ethyl ester	123-66-0
Hexanal (*Known sensitizer, see above.)	66-25-1
Helvetolide	141773-73-1
Glycerol triacetate	102-76-1
Gamma-undecalactone	104-67-6
gamma-Terpinene (*Lacks sufficient sensitization data, see above.)	99-85-4
gamma-Octalactone	104-50-7
gamma-Nonalactone	104-61-0

Common Name	CAS Registry Number
gamma-Hexalactone	695-06-7
gamma-Heptalactone	105-21-5
gamma-Decalactone	706-14-9
Florol	63500-71-0
Eucalyptol (*Lacks sufficient sensitization data, see above.)	470-82-6
Ethylene brassylate	105-95-3
Ethyl vanillin	121-32-4
Ethyl undecylenate (*Repeat dose toxicant, see above.)	692-86-4
Ethyl linalyl acetate (*Lacks sufficient sensitization data, see above.)	61931-80-4
Ethyl linalool (*Known sensitizer, see above.)	10339-55-6
Ethyl isovalerate (*Lacks sufficient sensitization data, see above.)	108-64-5
Ethyl ester 2-methylbutanoic acid	7452-79-1
Ethyl dimethylhydrocinnamaldehyde (*Lacks sufficient sensitization data; repeat dose toxicant. See above.)	67634-15-5
Ethyl butyrate (*Lacks sufficient sensitization data, see above.)	105-54-4
Dodecanal (*Known sensitizer, see above.)	112-54-9
Diphenyl oxide (*Lacks sufficient sensitization data, see above.)	101-84-8
Dipentene (*Known sensitizer, see above.)	138-86-3
Dimethylallyl acetate (*Lacks sufficient sensitization data, see above.)	1191-16-8
Dimethyl tetrahydrobenzaldehyde (*Known sensitizer; repeat dose toxicant. See above.)	68737-61-1
Dimethyl malonate	108-59-8
Diisobutyl carbinyl acetate (*Lacks sufficient sensitization data; repeat dose toxicant. See above.)	10250-45-0
Dihydromyrcenol	18479-58-8
Dihydrocitronellol	106-21-8
Diethyl malonate	105-53-3
Dicyclopentadiene propionate (*Lacks sufficient sensitization data, see above.)	68912-13-0
delta-Dodecalactone (*Lacks sufficient sensitization data, see above.)	713-95-1
delta-Decalactone (*Lacks sufficient sensitization data, see above.)	705-86-2
delta-Damascone (*Known sensitizer; repeat dose toxicant. See above.)	57378-68-4
Decaldehyde (*Known sensitizer, see above.)	112-31-2
D-Menthol (*Known sensitizer, see above.)	15356-60-2

Common Name	CAS Registry Number
Cyclopentanone, 2-pentyl- (*Lacks sufficient sensitization data, see above.)	4819-67-4
Cyclohexanone, 2-(1-mercapto-1-methylethyl)-5-methyl- (*Known sensitizer, see above.)	38462-22-5
Cyclohexanepropanol, 2,2,6-trimethyl-.alpha.-propyl- (*Lacks sufficient sensitization data, see above.)	70788-30-6
Cyclohexanecarboxylic acid, 2,2-dimethyl-6-methylene-, methyl ester (*Lacks sufficient sensitization data, see above.)	81752-87-6
Cuminaldehyde (*Known sensitizer, see above.)	122-03-2
Citronellyl acetate (*Known sensitizer; repeat dose toxicant. See above.)	150-84-5
Citronelloxyacetaldehyde (*Known sensitizer; repeat dose toxicant. See above.)	7492-67-3
Citronellol (*Known sensitizer; repeat dose toxicant. See above.)	106-22-9
Citronellal (*Known sensitizer; repeat dose toxicant. See above.)	106-23-0
cis-3-hexenol (*Lacks sufficient sensitization data, see above.)	928-96-1
Carvone (*Known sensitizer; repeat dose toxicant. See above.)	99-49-0
Camphene (*Lacks sufficient sensitization data, see above.)	79-92-5
Calone (*Lacks sufficient sensitization data, see above.)	28940-11-6
Butanoic acid, 3-methyl-, 3-methylbutyl ester (*Lacks sufficient sensitization data, see above.)	659-70-1
beta-Ionone (*Known sensitizer; repeat dose toxicant. See above.)	14901-07-6
Benzyldimethyl carbinyl acetate (*Known sensitizer, see above.)	151-05-3
Benzyl salicylate (*Known sensitizer; repeat dose toxicant. See above.)	118-58-1
Benzenepentanol, gamma-methyl- (*Known sensitizer, see above.)	55066-48-3
Balinol	28219-61-6
Amyl salicylate (*Known sensitizer; repeat dose toxicant. See above.)	2050-08-0
Amyl acetate (*Known sensitizer, see above.)	628-63-7
alpha-Terpineol	98-55-5
alpha-Methyl ionone (*Known sensitizer; repeat dose toxicant. See above.)	7779-30-8
alpha-Isomethylionone (*Known sensitizer; repeat dose toxicant. See above.)	127-51-5
alpha-Ionone (*Known sensitizer; repeat dose toxicant. See above.)	127-41-3
9-Decen-1-ol (*Lacks sufficient sensitization data; repeat dose toxicant. See above.)	13019-22-2
7-Octen-2-ol, 2-methyl-6-methylene-, dihydro deriv.	53219-21-9

Common Name	CAS Registry Number
4-tert-Butylcyclohexanol (*Repeat dose toxicant, see above.)	98-52-2
4-t-Butylcyclohexyl acetate (*Lacks sufficient sensitization data; repeat dose toxicant. See above.)	32210-23-4
4,7-Methano-1H-indenol, 3a,4,5,6,7,7a-hexahydro-, acetate (*Lacks sufficient sensitization data, see above.)	54830-99-8
3-Methyl-5-heptanone oxime (*Lacks sufficient sensitization data, see above.)	22457-23-4
3-Hexenyl salicylate (*Known sensitizer; repeat dose toxicant. See above.)	65405-77-8
3-Decen-5-ol, 4-methyl- (*Known sensitizer; repeat dose toxicant. See above.)	81782-77-6
3-Cyclohexene-1-carboxaldehyde, 2,4,6-trimethyl- (*Known sensitizer; repeat dose toxicant. See above.)	1423-46-7
3-Cyclohexen-1-ol, 4-methyl-1-(1-methylethyl)-	562-74-3
3-cis-Hexenyl methyl carbonate (*Lacks sufficient sensitization data, see above.)	67633-96-9
2-tert-Butylcyclohexanol (*Lacks sufficient sensitization data; repeat dose toxicant. See above.)	13491-79-7
2-Methylbutyl salicylate (*Known sensitizer; repeat dose toxicant. See above.)	51115-63-0
2-Heptylcyclopentan-1-one (*Lacks sufficient sensitization data, see above.)	137-03-1
2-Butanone, 4-(4-hydroxyphenyl)- (*Lacks sufficient sensitization data, see above.)	5471-51-2
2-Acetylnaphthalene (*Lacks sufficient sensitization data, see above.)	93-08-3
2,6-Dimethyl-2-heptanol (*Lacks sufficient sensitization data, see above.)	13254-34-7
2(3H)-Naphthalenone, 4,4a,5,6,7,8-hexahydro-4,4a-dimethyl-6-(1-methylethenyl)-, (4R,4aS,6R)- (*Known sensitizer, see above.)	4674-50-4
10-Undecenal (*Known sensitizer, see above.)	112-45-8
1-Undecanol	112-42-5
1-Tetradecanol (*Repeat dose toxicant, see above.)	112-72-1
1-Octanol (*Repeat dose toxicant, see above.)	111-87-5
1-Nonanol (*Repeat dose toxicant, see above.)	143-08-8
1-Dodecanol	112-53-8
1-Decanol (*Repeat dose toxicant, see above.)	112-30-1
1,4-dimethoxybenzene (*Repeat dose toxicant, see above.)	150-78-7
1,3-Undecadien-5-yne (*Lacks sufficient sensitization data, see above.)	166432-52-6

Common Name	CAS Registry Number
1,2,3,4,4a,7,8,8a-Octahydro-2,4a,5,8a-tetramethyl-1-naphthyl formate (*Lacks sufficient sensitization data, see above.)	65405-72-3
(Z)- cis-3-Hexenyl acetate (*Lacks sufficient sensitization data, see above.)	3681-71-8
(d)-Limonene (*Known sensitizer, see above.)	5989-27-5

Oxidants and Oxidant Stabilizers

Common Name	CAS Registry Number
Aminotrimethylene phosphonic acid (*Only allowed as an oxidant stabilizer.)	6419-19-8
Diethylenetriaminepenta(methylenephosphonic acid), sodium salt (*Only allowed as an oxidant stabilizer.)	22042-96-2
Disodium tin hexahydrate (*Only allowed as an oxidant stabilizer)	12027-70-2
Hydrogen peroxide	7722-84-1
Phosphonic acid (*Only allowed as an oxidant stabilizer.)	13598-36-2
Phosphoric acid (*Only allowed as an oxidant stabilizer.)	7664-38-2
Phosphorous acid (*Only allowed as an oxidant stabilizer)	10294-56-1
Potassium stannate (*Only allowed as an oxidant stabilizer.)	12142-33-5
Sodium acid pyrophosphate (*Only allowed as an oxidant stabilizer)	7758-16-9
Sodium nitrate (*Only allowed as an oxidant and preservative stabilizer.)	7631-99-4
Sodium percarbonate	15630-89-4
Sodium peroxydisulfate	7775-27-1
Sodium stannate (*Only allowed as an oxidant stabilizer.)	12058-66-1
Sodium tripolyphosphate (*Only allowed as an oxidant stabilizer)	7758-29-4
Tetraacetyl ethylene diamine	10543-57-4

Polymers

Common Name	CAS Registry Number
2,5-Furandione, polymer with 1-propene	25722-45-6
2,5-Furandione, polymer with 2,4,4-trimethylpentene, sodium salt	37199-81-8
2,5-Furandione, polymer with ethenylbenzene, ammonium salt	26022-09-3
2,5-Furandione, telomer with ethenylbenzene and (1-methylethyl)benzene, sodium salt	52500-92-2
2-Butenedioic acid (2Z)-, polymer with 2-propenoic acid	29132-58-9

Common Name	CAS Registry Number
2-Propenoic acid, 2-methyl-, butyl ester, polymer with butyl 2-propenoate and methyl 2-methyl-2-propenoate	25322-99-0
2-Propenoic acid, 2-methyl-, butyl ester, polymer with methyl 2-methyl-2-propenoate	25608-33-7
2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with hexadecyl 2-methyl-2-propenoate, octadecyl 2-methyl-2-propenoate and tetradecyl 2-methyl-2-propenoate	65405-40-5
2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethenylbenzene and 2-propenoic acid	25767-39-9
2-Propenoic acid, 2-methyl-, polymer with 2-propenoic acid, sodium salt	28205-96-1
2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate, butyl 2-propenoate, ethenylbenzene and methyl 2-methyl-2-propenoate	25950-40-7
2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate	25035-82-9
2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate and ethenylbenzene	25036-16-2
2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate and methyl 2-methyl-2-propenoate	25035-69-2
2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, (1-methylethenyl)benzene and methyl 2-methyl-2-propenoate	94031-39-7
2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, ethene, ethenylbenzene, ethyl 2-propenoate and methyl 2-methyl-2-propenoate	67892-91-5
2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, ethenylbenzene and methyl 2-methyl-2-propenoate	25987-66-0
2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, ethenylbenzene and methyl 2-methyl-2-propenoate, calcium salt	137899-00-4
2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, ethenylbenzene, ethyl 2-propenoate and methyl 2-methyl-2-propenoate	63744-68-3
2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, ethenylbenzene, methyl 2-methyl-2-propenoate and 2-propenenitrile	31392-42-4
2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene	9010-92-8
2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene and methyl 2-methyl-2-propenoate	25035-81-8
2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene, ethyl 2-propenoate, methyl 2-methyl-2-propenoate and 1,2-propanediol mono(2-methyl-2-propenoate)	65405-63-2
2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate	25212-88-8
2-Propenoic acid, 2-methyl-, polymer with methyl 2-methyl-2-propenoate	25086-15-1

Common Name	CAS Registry Number
2-Propenoic acid, 2-methyl-, polymers with Et acrylate and polyethylene glycol methacrylate C16-18-alkyl ethers methacrylic acid polymer	70879-60-6
2-Propenoic acid, homopolymer	9003-01-4
2-Propenoic acid, homopolymer, sodium salt	9003-04-7
2-Propenoic acid, polymer with 2,5-furandione, sodium salt	52255-49-9
2-Propenoic acid, potassium salt (1:1), polymer with 2-propenamide	31212-13-2
2-Propenoic acid, telomer with sodium hydrogen sulfite, sodium salt	68479-09-4
2-Propenoic acid, telomer with sodium sulfite (1:1)	66019-18-9
Benzenesulfonic acid, hydroxy-, sodium salt (1:1), polymer with formaldehyde and 4,4'-sulfonylbis[phenol]	71832-81-0
Butanedioic acid, 2-methylene-, polymer with 2-propenoic acid, sodium salt	26099-88-7
Butanoic acid, 3-oxo-, 2-[(2-methyl-1-oxo-2-propen-1-yl)oxy]ethyl ester, polymer with butyl 2-propenoate, 2-ethylhexyl 2-propenoate, methyl 2-methyl-2-propenoate, 2-methyl-2-propenoic acid and 2-propen-1-yl 2-methyl-2-propenoate	156042-41-0
Ethene, homopolymer, oxidized	68441-17-8
Ethylene/acrylic acid copolymer	9010-77-9
Glycerol poly(oxyethylene) ether	31694-55-0
Octadecanoic acid, 12-hydroxy-, polymer with alpha-hydro-omega-hydroxypoly(oxy-1,2-ethanediyl)	70142-34-6
Polybutene	9003-29-6
Polyethylene glycol	25322-68-3
Polymaleic acid	26099-09-2
Polymethacrylic acid	25087-26-7
Polypropylene	9003-07-0
Polyvinylpyrrolidone	9003-39-8
Sodium ligninsulfonate	8061-51-6
Sodium polymethacrylate	54193-36-1
Sorbitan oleate decylglucoside crosspolymer	1443994-56-6
Vinyl acetate vinyl alcohol polymer	25213-24-5

Preservatives and Antioxidants

Common Name	CAS Registry Number
1,2-Benzisothiazol-3(2H)-one	2634-33-5

Common Name	CAS Registry Number
Benzoic acid	65-85-0
Benzoic acid, potassium salt	582-25-2
Benzoic acid, sodium Salt	532-32-1
Dehydroacetic acid	520-45-6
DL-alpha-Tocopherol	10191-41-0
DL-Lactic acid	50-21-5
L-Lactic acid	79-33-4
Magnesium (II) nitrate, hexahydrate (*Only allowed as a preservative stabilizer.)	13446-18-9
Magnesium nitrate (*Only allowed as a preservative stabilizer.)	10377-60-3
Methyl chloro isothiazolinone	26172-55-4
Methyl isothiazolinone	2682-20-4
Pentaerythritol, tetrakis(3,5-di-tert-butyl-4-hydroxyhydrocinnamate)	6683-19-8
Phenoxyethanol (*Yellow, due in part to its status as a Hazardous Air Pollutant HAP under the Clean Air Act.)	122-99-6
Potassium (E,E)-sorbate	24634-61-5
Potassium sorbate	590-00-1
Sodium citrate, anhydrous	68-04-2
Sodium citrate, dihydrate	6132-04-3
Sodium nitrate (*Only allowed as an oxidant and preservative stabilizer.)	7631-99-4
Sodium propionate	137-40-6
Sorbic acid	110-44-1
Tocopherol acetate	7695-91-2
Vitamin E acetate	58-95-7

Processing Aids and Additives

Common Name	CAS Registry Number
Acetic acid	64-19-7
alpha-Methylglucoside	97-30-3
Ascorbic acid	50-81-7
Bentonite	1302-78-9
Calcined kaolin	66402-68-4
Calcium acetate	62-54-4
Calcium carbonate	471-34-1

Common Name	CAS Registry Number
Calcium chloride, anhydrous	10043-52-4
Calcium chloride, dihydrate	10035-04-8
Calcium citrate	813-94-5
Calcium formate	544-17-2
Calcium magnesium acetate	76123-46-1
Calcium silicate	1344-95-2
Canola oil	120962-03-0
Carrageenan	9000-07-1
Cellulose	9004-34-6
Cellulose, 2-hydroxypropyl methyl ether	9004-65-3
Cellulose, carboxymethyl ether, sodium salt	9004-32-4
Cellulose, regenerated	68442-85-3
Citric acid, anhydrous	77-92-9
Citric acid, monohydrate	5949-29-1
Coconut oil	8001-31-8
Corn gluten protein	66071-96-3
Corn oil	8001-30-7
Corn sugar syrup	8029-43-4
D-Gluconic acid	526-95-4
D-Glucose	50-99-7
Dextrin	9004-53-9
Dipotassium hydrogen citrate	3609-96-9
Disodium disilicate	13870-28-5
Disulfurous acid, disodium salt	7681-57-4
DL-Lactic acid	50-21-5
Formic acid	64-18-6
Fumaric acid	110-17-8
Glass fibers	65997-17-3
Gluconolactone	90-80-2
Glycine	56-40-6
Guar gum	9000-30-0
Hydrochloric acid (aqueous) (*Yellow, due to its status as a Hazardous Air Pollutant HAP under the Clean Air Act.)	7647-01-0
Hydroxyethyl cellulose	9004-62-0

Common Name	CAS Registry Number
Hydroxypropyl cellulose	9004-64-2
Inulin, carboxymethyl ether, sodium salt	430439-54-6
Kaolin	1332-58-7
L-Lactic acid	79-33-4
Limestone	1317-65-3
Magnesium acetate	142-72-3
Magnesium chloride, anhydrous	7786-30-3
Magnesium chloride, hexahydrate	7791-18-6
Magnesium hydroxide	1309-42-8
Magnesium oxide	1309-48-4
Magnesium sulfate, anhydrous	7487-88-9
Magnesium sulfate, heptahydrate	10034-99-8
Malic acid	6915-15-7
Maltodextrin	9050-36-6
Methanesulfonic acid	75-75-2
Methyl cellulose	9004-67-5
Molasses, blackstrap	8052-35-5
Nepheline syenite	37244-96-5
Olive oil	8001-25-0
Palm oil	8002-75-3
Perlite	93763-70-3
Potassium acetate	127-08-2
Potassium bicarbonate	298-14-6
Potassium carbonate, anhydrous	584-08-7
Potassium chloride	7447-40-7
Potassium citrate, anhydrous	866-84-2
Potassium citrate, monohydrate	6100-05-6
Potassium hydroxide	1310-58-3
Potassium silicate	1312-76-1
Potassium sulfate	7778-80-5
Pumice	1332-09-8
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica	68909-20-6
Silica	7631-86-9

Common Name	CAS Registry Number
Silica gel (*For TSCA purposes, this CASRN/chemical name is used to represent 112926-00-8 (hydrated silica).)	63231-67-4
Silicic acid, disodium salt, pentahydrate	10213-79-3
Silicon carbide	409-21-2
Smectite-group minerals	12199-37-0
Sodium acetate	127-09-3
Sodium bicarbonate	144-55-8
Sodium bisulfate	7681-38-1
Sodium carbonate, anhydrous	497-19-8
Sodium carbonate, monohydrate	5968-11-6
Sodium chloride	7647-14-5
Sodium citrate, anhydrous	68-04-2
Sodium citrate, dihydrate	6132-04-3
Sodium dihydrogen citrate	18996-35-5
Sodium formate	141-53-7
Sodium gluconate	527-07-1
Sodium hydroxide	1310-73-2
Sodium magnesium silicate	53320-86-8
Sodium metasilicate	6834-92-0
Sodium propionate	137-40-6
Sodium sesquicarbonate	533-96-0
Sodium silicate	1344-09-8
Sodium sulfate	7757-82-6
Sodium sulfite	7757-83-7
Sodium thiosulfate	7772-98-7
Sodium thiosulfate, pentahydrate	10102-17-7
Sorbitol	50-70-4
Soybean oil	8001-22-7
Starch	9005-25-8
Starch, 2-hydroxypropyl ether	9049-76-7
Sucrose	57-50-1
Sulfamic acid	5329-14-6
Sulfuric acid (aqueous) (*Yellow due in part to IARC designation for strong inorganic acid mists. Meets criteria for Simple Acids and Bases sub-group.)	7664-93-9

Common Name	CAS Registry Number
Sulfurous acid, monosodium salt	7631-90-5
Titanium (IV) oxide	13463-67-7
Urea, methanesulfonate (1:1)	207308-34-7
Vinegar	8028-52-2
Xanthan gum	11138-66-2
Zeolites	1318-02-1
Zeolites, NaA	68989-22-0

Solvents

Common Name	CAS Registry Number
(d)-Limonene (*Yellow due to hazard concerns. Must meet 5.5.2.)	5989-27-5
1,1'-Dimethyldiethylene glycol	110-98-5
1,2-Propanediol	57-55-6
1,3-Butanediol	107-88-0
1,3-Dioxolan-2-one, 4-ethyl-	4437-85-8
1,3-Propanediol	504-63-2
1-(2-Methoxy-1-methylethoxy)-2-propanol	20324-32-7
1-Dodecanol	112-53-8
1-Methoxy-2-propanol	107-98-2
1-Propoxy-2-propanol	1569-01-3
1-Undecanol	112-42-5
2-Methyl-2,4-pentanediol	107-41-5
3-Methyl-3-methoxybutanol	56539-66-3
4-Hydroxymethyl-1,3-dioxolan-2-one	931-40-8
9-Dodecenoic acid, methyl ester (*Yellow due to hazard concerns, but allowed to provide functionality while meeting Safer Choice VOC criteria. See section 4.2.7.1.)	39202-17-0
Alcohols, C9-11	66455-17-2
Butanoic acid, 3-hydroxy-, ethyl ester	5405-41-4
Butyl-3-hydroxybutanoate	53605-94-0
Diethylene glycol mono-N-butyl ether (*Yellow, due in part to its status as a Hazardous Air Pollutant HAP under the Clean Air Act. *Yellow due to hazard concerns, but allowed to provide functionality while meeting Safer Choice VOC criteria. See section 4.2.7.1.)	112-34-5
Dimethyl adipate	627-93-0

Common Name	CAS Registry Number
Dimethyl glutarate	1119-40-0
Dimethyl succinate	106-65-0
Dipropylene glycol	25265-71-8
Dipropylene glycol methyl ether	34590-94-8
Dipropylene glycol monobutyl ether (*Yellow due to hazard concerns, but allowed to provide functionality while meeting Safer Choice VOC criteria. See section 4.2.7.1.)	29911-28-2
Ethanol	64-17-5
Ethyl lactate	97-64-3
Fatty acids, C12-18, methyl esters (*Yellow due to hazard concerns, but allowed to provide functionality while meeting Safer Choice VOC criteria. See section 4.2.7.1.)	68937-84-8
Fatty acids, C16-18 and C18-unsatd., methyl esters (*Yellow due to hazard concerns, but allowed to provide functionality while meeting Safer Choice VOC criteria. See section 4.2.7.1.)	67762-38-3
Fatty acids, soya, Me esters (*Yellow due to hazard concerns, but allowed to provide functionality while meeting Safer Choice VOC criteria. See section 4.2.7.1.)	68919-53-9
Glycerides, mixed decanoyl and octanoyl	73398-61-5
Glycerol	56-81-5
Isopropanol	67-63-0
Isopropyl myristate	110-27-0
Pentanedioic acid, 2-methyl-, 1,5-dimethyl ester	14035-94-0
Polypropylene glycol (*Yellow due to hazard concerns, but allowed to provide functionality while meeting Safer Choice VOC criteria. See section 4.2.7.1.)	25322-69-4
Propanol 1 (or 2)-2-methoxymethyl ethoxy, acetate	88917-22-0
Propanol, [2-(2-methoxymethylethoxy)methylethoxy]- (*Yellow due to hazard concerns, but allowed to provide functionality while meeting Safer Choice VOC criteria. See section 4.2.7.1.)	25498-49-1
Propyl acetate	109-60-4
Propylene carbonate	108-32-7
Propylene glycol methyl ether acetate	108-65-6
Propylene glycol n-butyl ether	5131-66-8
Soybean oil, methyl esters (*Yellow due to hazard concerns, but allowed to provide functionality while meeting Safer Choice VOC criteria. See section 4.2.7.1.)	67784-80-9

Common Name	CAS Registry Number
Tetraethylene glycol	112-60-7
Tripropylene glycol n-butyl ether	55934-93-5
Water	7732-18-5
White mineral oil, petroleum	8042-47-5

Specialized Industrial Chemicals

These chemicals are only eligible for use in specialized industrial products and are qualified based on Safer Choice Criteria for Specialized Industrial Products (see also Section 4.6 of the Safer Choice Standard)

Common Name	CAS Registry Number
1H-Imidazole-1-ethanol, 2-(heptadecenyl)-4,5-dihydro-	27136-73-8
Amphoteric fluorinated surfactant	34455-29-3
Boron, trifluoro(tetrahydrofuran)-, (T-4)-, polymer with 3-methyl-3-[(2,2,2-trifluoroethoxy)methyl]oxetane, ether with 2,2-dimethyl-1,3-propanediol (2:1), bis(hydrogen sulfate), diammonium salt	452080-64-7
Boron, trifluoro(tetrahydrofuran)-, (T-4)-, polymer with 3-methyl-3-[(2,2,3,3,3-pentafluoropropoxy)methyl]oxetane, ether with 2,2-dimethyl-1,3-propanediol (2:1), bis(hydrogen sulfate), diammonium salt	452080-67-0
Ethanolamine	141-43-5
Fatty acids, C16-18 and C18-unsatd., methyl esters	67762-38-3
Fatty acids, soya, Me esters	68919-53-9
Halogenated aliphatic acid	27619-97-2
Soybean oil, methyl esters	67784-80-9
Tri-2-Butoxyethyl phosphate	78-51-3
Triethanolamine	102-71-6

Surfactants

Common Name	CAS Registry Number
1-Dodecanesulfonic acid, hydroxy-, sodium salt	128824-30-6
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-(C8-18 and C18-unsatd. acyl) derivs., inner salts	147170-44-3
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., chlorides, sodium salts	61789-39-7
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., inner salts	61789-40-0

Common Name	CAS Registry Number
1-Propanaminium, N-(carboxymethyl)-N,N-dimethyl-3-[(1-oxodecyl)amino]-, inner salt	73772-45-9
1-Propanaminium, N-(carboxymethyl)-N,N-dimethyl-3-[(1-oxooctyl)amino]-, inner salt	73772-46-0
9-Eicosenoic acid	506-31-0
Alcohols, C10-12, ethoxylated propoxylated	68154-97-2
Alcohols, C10-14, ethoxylated	66455-15-0
Alcohols, C10-16, ethoxylated	68002-97-1
Alcohols, C10-16, ethoxylated propoxylated	69227-22-1
Alcohols, C11-14-iso-, C13-rich, ethoxylated	78330-21-9
Alcohols, C11-15-secondary, ethoxylated	68131-40-8
Alcohols, C12-13, ethoxylated	66455-14-9
Alcohols, C12-14, ethoxylated	68439-50-9
Alcohols, C12-14, ethoxylated propoxylated	68439-51-0
Alcohols, C12-14-secondary, ethoxylated	84133-50-6
Alcohols, C12-15, ethoxylated	68131-39-5
Alcohols, C12-15, ethoxylated propoxylated	68551-13-3
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	120313-48-6
Alcohols, C12-16, ethoxylated	68551-12-2
Alcohols, C12-18	67762-25-8
Alcohols, C12-18, ethers with polyethylene glycol mono-Bu ether	146340-16-1
Alcohols, C12-18, ethoxylated	68213-23-0
Alcohols, C14-15, ethoxylated	68951-67-7
Alcohols, C16-18, ethoxylated	68439-49-6
Alcohols, C6-10, ethoxylated	70879-83-3
Alcohols, C6-10, ethoxylated propoxylated	68987-81-5
Alcohols, C6-12, ethoxylated	68439-45-2
Alcohols, C8-10, ethoxylated	71060-57-6
Alcohols, C8-10, ethoxylated propoxylated	68603-25-8
Alcohols, C8-18, ethoxylated propoxylated	69013-18-9
Alcohols, C9-11, ethoxylated	68439-46-3
Alkyl(C12-C16)alcohol sulfate sodium salt	73296-89-6
Amides, coco, N-[3-(dimethylamino)propyl], alkylation products with chloroacetic acid, sodium salts	70851-07-9
Amines, C10-16-alkyldimethyl, N-oxides	70592-80-2

Common Name	CAS Registry Number
Amines, C12-18-alkyldimethyl, N-oxides	68955-55-5
Amines, coco alkyl dihydroxyethyl, oxides	61791-47-7
Ammonium lauryl sulfate	2235-54-3
Ammonium xylenesulfonate	26447-10-9
Benzene, (1-methylethyl)-, monosulfo deriv., sodium salt (1:1)	32073-22-6
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.	85536-14-7
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., sodium salts	127184-52-5
Benzenesulfonic acid, C10-14-alkyl derivs., sodium salts	69669-44-9
Benzenesulfonic acid, C10-16-alkyl derivs.	68584-22-5
Benzenesulfonic acid, C10-16-alkyl derivs., magnesium salts	68584-26-9
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	68081-81-2
beta-Alanine, N-(2-carboxyethyl)-N-(2-ethylhexyl)-, sodium salt (1:1)	94441-92-6
Betaines, C10-16-alkyl(2-hydroxy-3-sulfopropyl)dimethyl	72869-77-3
Bis(1-methylamyl) sodium sulfosuccinate	3006-15-3
Butanedioic acid, sulfo-, mono(C10-C16)alkyl ethoxylated ester, disodium salt	68815-56-5
C10-13 Alkyl benzenesulfonic acid, sodium salts	90194-45-9
Capric dimethyl amine oxide	2605-79-0
Castor oil, sulfated, sodium salt	68187-76-8
Cetamine oxide	7128-91-8
Cocamidopropyl hydroxysultaine	68139-30-0
Cocamidopropylamine oxide	68155-09-9
Cocamine oxide	61788-90-7
Coconut fatty acids, ethoxylated	61791-29-5
Coconut oil, sodium salt	68814-96-0
Cyclocarboxypropyloleic acid	53980-88-4
D-Glucopyranose, oligomeric, 2-ethylhexyl glycosides (*Flagged on 12/09/2014 for removal from SCIL in 12 months.)	161074-93-7
D-Glucopyranose, oligomeric, 6-(dihydrogen 2-hydroxy-1,2,3-propanetricarboxylate), 1-(coco alkyl) ethers, sodium salts	151911-51-2
D-Glucopyranose, oligomeric, Bu glycosides	510758-10-8
D-Glucopyranose, oligomeric, C10-16-alkyl glycosides	110615-47-9
D-Glucopyranose, oligomeric, C10-16-alkyl glycosides, 2-hydroxy-3-sulfopropyl ethers, sodium salts	742087-49-6
D-Glucopyranose, oligomeric, C9-11-alkyl glycosides	132778-08-6

Common Name	CAS Registry Number
D-Glucopyranose, oligomeric, decyl octyl glycosides	68515-73-1
D-Glucopyranoside, hexyl	54549-24-5
Decanoic acid	334-48-5
Decanoic acid, potassium salt (1:1)	13040-18-1
Decylbenzenesulfonic acid	1322-98-1
Diethylene glycol momolauryl ether sodium sulfate	3088-31-1
Disodium lauriminodipropionate	3655-00-3
Docosanoic acid	112-85-6
Dodecanoic acid	143-07-7
Dodecanoic acid, sodium salt	629-25-4
Dodecene-1-sulfonic acid, sodium salt	30965-85-6
Dodecyl alcohol, ethoxylated	9002-92-0
Dodecyl triethylene glycol ether	3055-94-5
Dodecylbenzene sulfonic acid	27176-87-0
Eicosanoic acid	506-30-9
Ethanaminium, 2-hydroxy-N,N-bis(2-hydroxyethyl)-N-methyl-, esters with C16-18 and C18-unsatd. fatty acids, methyl sulfates (salts)	157905-74-3
Ethanaminium, 2-hydroxy-N-(2-hydroxyethyl)-N,N-dimethyl-, esters with C16-18 and C18-unsatd. fatty acids, chlorides	1079184-43-2
Ethanaminium, N,N-dimethyl-2-[(1-oxooctadecyl)oxy]-N-[2-[(1-oxooctadecyl)oxy]ethyl]-, chloride	67846-68-8
Fatty acids, C10-16	68002-90-4
Fatty acids, C12-18, methyl esters, sulfonated, sodium salts	149458-07-1
Fatty acids, C14-18 and C16-18-unsatd.	67701-06-8
Fatty acids, C16 - C18 and C18 unsaturated, branched and linear	68955-98-6
Fatty acids, C16-18 and C18-unsatd.	67701-08-0
Fatty acids, C8-18 and C18-unsatd.	67701-05-7
Fatty acids, coco	61788-47-4
Fatty acids, coco, sodium salts	61789-31-9
Fatty acids, coconut oil, potassium salts	61789-30-8
Fatty acids, coconut oil, sulfoethyl esters, sodium salts	61789-32-0
Fatty acids, olive-oil, sodium salts	61789-88-6
Fatty acids, palm kernel-oil, methyl esters, sulfonated, sodium salts	68440-13-1
Fatty acids, palm-oil, sodium salts	61790-79-2
Fatty acids, safflower-oil, sodium salts	68440-19-7

Common Name	CAS Registry Number
Fatty acids, tall oil, sodium salt	61790-45-2
Fatty acids, tall-oil	61790-12-3
Fatty acids, tall-oil, potassium salts	61790-44-1
Fatty acids, tallow	61790-37-2
Fatty acids, tallow, hydrogenated, compds. with triethanolamine	68605-97-0
Fatty acids, tallow, sodium salts	8052-48-0
Gardol	137-16-6
Glycerides, C14-18 mono- and di-	67701-33-1
Glycerides, C16-18 and C18-unsatd. mono- and di-	68424-61-3
Glycerine oleate	37220-82-9
Glyceryl monostearate	123-94-4
Glyceryl stearates	11099-07-3
Glycine, N-methyl-, N-coco acyl derivs.	68411-97-2
Glycol distearate	627-83-8
Heptadecanoic acid	506-12-7
Hexanoic acid	142-62-1
Hexyl poly(oxyethylene) ether	31726-34-8
Imidazolium compounds, 1-[2-(2-carboxyethoxy)ethyl]-1(or 3)-(2-carboxyethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, disodium salts	68604-71-7
Isopropanol	67-63-0
Lauramidopropyl betaine	4292-10-8
Lauramidopropylamine oxide	61792-31-2
Lauryl hydroxysultaine	13197-76-7
Lauryldimethylbetaine	683-10-3
Lignoceric acid	557-59-5
Linoleic acid	60-33-3
Linolenic acid	463-40-1
Magnesium lauryl sulfate	3097-08-3
Methyl laurate	111-82-0
Myristamido propylamine oxide	67806-10-4
Myristamidopropyl betaine	59272-84-3
Myristoleic acid	544-64-9
Myristyl alcohol, ethoxylated	27306-79-2
N,N-Dimethyl-1-tetradecanamine-N-oxide	3332-27-2

Common Name	CAS Registry Number
N,N-Dimethyldodecylamine oxide	1643-20-5
N-(3-Alkyl(C12-C15)oxypropyl)-3-iminodipropionic acid, monosodium salt	68608-69-5
n-Octylpolyoxyethylene	27252-75-1
N-Octylpyrrolidone	2687-94-7
Octanoic acid	124-07-2
Octanoic acid, monoester with 1,2,3-propanetriol	26402-26-6
Octanoic acid, potassium salt	764-71-6
Octanoic acid, reaction products with 2-[(2-aminoethyl)amino]ethanol, acrylic acid alkylated (1:2), disodium salts	68815-55-4
Octyldimethylamine oxide	2605-78-9
Octyldimethylbetaine	27593-14-2
Oleic acid	112-80-1
Oleic acid, sodium salt	143-19-1
Oxirane, 2-methyl-, polymer with oxirane, mono(2-propylheptyl) ether (*Flagged on 12/09/2014 for removal from SCIL in 12 months.)	166736-08-9
Oxirane, methyl-, polymer with oxirane, mono(2-ethylhexyl) ether	64366-70-7
Palmitic acid	57-10-3
Poloxalene	9003-11-6
Poly(oxy-1,2-ethanediyl), .alpha.-(3-carboxy-1-oxo-3-sulfopropyl)-.omega.-(dodecyloxy)-, disodium salt	39354-45-5
Poly(oxy-1,2-ethanediyl), .alpha.-(carboxymethyl)-.omega.-(octyloxy)-	53563-70-5
Poly(oxy-1,2-ethanediyl), .alpha.-decyl-.omega.-hydroxy-	26183-52-8
Poly(oxy-1,2-ethanediyl), .alpha.-sulfo-.omega.-hydroxy-, C10-16-alkyl ethers, ammonium salts	67762-19-0
Poly(oxy-1,2-ethanediyl), alpha-(2-propylheptyl)-omega-hydroxy- (*Flagged on 12/09/2014 for removal from SCIL in 12 months.)	160875-66-1
Poly(oxy-1,2-ethanediyl), alpha-(3-carboxy-1-oxosulfopropyl)-omega-hydroxy-, C10-12-alkyl ethers, disodium salts	68954-91-6
Poly(oxy-1,2-ethanediyl), alpha-(carboxymethyl)-omega-hydroxy-, C12-13-alkyl ethers	70750-17-3
Poly(oxy-1,2-ethanediyl), alpha-(carboxymethyl)-omega-hydroxy-,C12-14-alkyl ethers	220622-96-8
Poly(oxy-1,2-ethanediyl), alpha-butyl-omega-(octyloxy)-	109075-72-1
Poly(oxy-1,2-ethanediyl), alpha-undecyl-omega-hydroxy-, branched and linear	127036-24-2

Common Name	CAS Registry Number
Polyethylene glycol distearate	9005-08-7
Polyethylene glycol mono(tridecyl) ether	24938-91-8
Polyethylene glycol mono-C10-16-alkyl ether sulfate sodium salt	68585-34-2
Polyethylene glycol mono-C12-14-alkyl ether sulfate sodium salt	68891-38-3
Polyethylene glycol monoleyl ether	9004-98-2
Polyethylene glycol stearate	9004-99-3
Polyoxyethylene dioleate	9005-07-6
Polyoxyethylene monoleate	9004-96-0
Polyoxyethylene monooctadecyl ether	9005-00-9
Polyoxyethylene monoundecyl ether	34398-01-1
Polyoxyethylene sorbitan trioleate	9005-70-3
Polysorbate 80	9005-65-6
Potassium acrylinoleate	68127-33-3
Potassium dodecanoate	10124-65-9
Potassium dodecylbenzene sulfonate	27177-77-1
Potassium linoleate	3414-89-9
Potassium myristate	13429-27-1
Potassium palmitate	2624-31-9
Potassium palmitoleate	593-29-3
Propanoic acid, 2-hydroxy-, 2-(C10-16-alkyloxy)-1-methyl-2-oxoethyl ester	910661-93-7
Quaternary ammonium compounds, bis(hydroxyethyl)methyltallow alkyl, ethoxylated, methyl sulfates (salts)	73138-81-5
Quaternary ammonium compounds, coco alkylbis(hydroxyethyl)methyl, ethoxylated, chlorides	61791-10-4
Sodium 1-methoxy-1-oxohexadecane-2-sulphonate	4016-24-4
Sodium 1-octanesulfonate	5324-84-5
Sodium cocoyl glutamate	68187-32-6
Sodium cumene sulfonate	28348-53-0
Sodium decanoate	1002-62-6
Sodium dodecylpoly(oxyethylene) sulfate	9004-82-4
Sodium ethasulfate (*Flagged on 12/09/2014 for removal from SCIL in 12 months.)	126-92-1
Sodium laurimino dipropionate	14960-06-6
Sodium lauryl benzene sulfonate	25155-30-0

Common Name	CAS Registry Number
Sodium lauryl sulfate	151-21-3
Sodium lauryl trioxyethylene sulfate	13150-00-0
Sodium linoleate	822-17-3
Sodium myristate	822-12-8
Sodium myristol sarcosinate	30364-51-3
Sodium octanoate	1984-06-1
Sodium octyl sulfate	142-31-4
Sodium palmitate	408-35-5
Sodium polyoxyethylene tridecyl sulfate	25446-78-0
Sodium stearate	822-16-2
Sodium tridecylbenzene sulfonate	26248-24-8
Sodium undecylbenzene sulfonate	27636-75-5
Sodium xylene sulfonate	1300-72-7
Sorbitan monolaurate	1338-39-2
Sorbitan monooleate	1338-43-8
Sorbitan monopalmitate	26266-57-9
Sorbitan monostearate	1338-41-6
Sorbitan oleate decylglucoside crosspolymer	1443994-56-6
Sorbitan sesquioleate	8007-43-0
Sorbitan, monododecanoate, poly(oxy-1,2-ethanediyl) derivs.	9005-64-5
Sorbitan, trioctadecanoate, poly(oxy-1,2-ethanediyl) derivs.	9005-71-4
Soybean oil fatty acids	68308-53-2
Soybean oil, sulfated, sodium salt	61790-16-7
Stearic acid	57-11-4
Sulfonic acids, C10-18-alkane, sodium salts	68037-49-0
Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	68439-57-6
Sulfonic acids, petroleum, sodium salts	68608-26-4
Sulfuric acid, mono-C10-16-alkyl esters, ammonium salts	68081-96-9
Sulfuric acid, mono-C10-16-alkyl esters, sodium salts	68585-47-7
Sulfuric acid, mono-C12-18-alkyl esters, sodium salts	68955-19-1
Sulfuric acid, mono-C16-18-alkyl esters, sodium salts	68955-20-4
Sulfuric acid, monodecyl ester, sodium salt (1:1)	142-87-0
Sunflower oil, potassium salt	69669-39-2
Tetradecanoic acid	544-63-8

Uncategorized

Common Name	CAS Registry Number
Aloe barbadensis extract	85507-69-3
Aloe barbadensis mill., extract	94349-62-9
Aloe, pharmaceutical	8001-97-6
Beeswax	8012-89-3
Cellulose, regenerated	68442-85-3
Denatonium benzoate (*Only allowed as a bittering agent.)	3734-33-6
Fats and Glyceridic oils, avocado	8024-32-6
Fats and Glyceridic oils, rice bran	68553-81-1
Fats and Glyceridic oils, sesame	8008-74-0
Gelatins, hydrolyzates	68410-45-7
Hemicellulose	9034-32-6
Heptanoic acid	111-14-8
Lignin	9005-53-2
Linseed oil	8001-26-1
Nitrogen	7727-37-9
Nonanoic acid	112-05-0
Oils, oat	106457-91-4
Oils, palm kernel	8023-79-8
Oils, wheat	68917-73-7
Paraffin waxes, petroleum, clay-treated	64742-43-4
Paraffin waxes, petroleum, hydrotreated	64742-51-4
Potassium heptadecanoate	17378-36-8
Pulp, cellulose	65996-61-4
Safflower oil	8001-23-8
Soy protein isolate, sodium salt	77098-13-6
Sunflower oil	8001-21-6
Urea	57-13-6
Urea, monohydrochloride	506-89-8
Zinc ricinoleate	13040-19-2

Source: http://www2.epa.gov/saferchoice/safer-ingredients