“Inert” Ingredients Used in Organic Production

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A Beyond Pesticides Report

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The relatively few registered pesticides allowed in organic production are contained in product formulations with so-called "inert" ingredients that are not disclosed on the product label. The "inerts" make up the powder, liquid, granule, or spreader/sticking agents in pesticide formulations. The "inerts" are typically included in products with natural or synthetic active pesticide ingredients recommended by the National Organic Standards Board (NOSB) and listed by the National Organic Program (NOP) on the National List of Allowed and Prohibited Substances. Any of the pesticides that meet the standards of public health and environmental protection and organic compatibility in the Organic Foods Production Act (OFPA) may contain "inert" ingredients. Because the standards of OFPA are different from those used by the U.S. Environmental Protection Agency (EPA) to regulate pesticides and given changes in how the agency categorizes inerts, the NOSB has adopted a series of recommendations since 2010 that established a substance review process as part of the sunset review. NOP has not followed through on the Board's recommendations and, as a result, there are numerous materials in use that have not been subject to OFPA criteria. This report (i) traces the history of the legal requirements for review by the NOSB, (ii) identifies the universe of toxic and nontoxic materials that make of the category of "inerts" used in products permitted in organic production, and (iii) suggests a path forward to ensure NOSB compliance with OFPA and uphold the integrity of the USDA organic label. With this information, the NOSB is being urged through this report to consider the review of "inert" ingredients among its highest priorities, given the widespread exposure to people and the environment, and the availability of alternative green materials.

What is an "Inert" Ingredient?

So-called "inert" ingredients in pesticide products are neither biologically nor chemically inert. Some are quite toxic, and may be "active" ingredients in other products. "Inert" ingredients may also be described as "adjuvants" or "formulants," and the pesticide product may be called a "formulation" or "preparation." "Inerts" are typically not listed on the label, and hence are often called "secret ingredients."

As will be described below, there has been a long history of evaluating –or failing to evaluate– the toxicity and other impacts of "inert" ingredients. Although consumers may assume that the organic food they eat is produced using inputs that are not toxic to humans –and, paradoxically, that does apply to the "active" ingredients in those inputs– the "inert" ingredients may not be so innocuous. See Case Study 1 for an example of one group of "inerts" –nonylphenol ethoxylates– that are allowed for use on food and non-food crops in organic production. Nonylphenol ethoxylates (NPEs) are known endocrine disrupting chemicals and are a high priority for removing from organic production. Case Study 2 describes a former List 2 "inert" that is allowed for use in non-organic food production.

In 1998, the Northwest Coalition for Alternatives to Pesticides (NCAP) published an investigation of "inerts" with toxic properties. NCAP documented a number of toxic "inerts," including the fact that 0.5% of List 1 "inerts" were also active pesticide ingredients, as were 8% of List 2, 68% of List 3, 3% of List 4A, and 20% of List 4B.

Case Study 1. Nonylphenol ethoxylates (NPEs)

Former List 4B as: ethoxylated p-nonylphenol (CAS# 26027-38-3), polyethylene (1,1,3,3-tetramethylbutyl)phenyl ether (CAS# 26 9036-19-5), polyoxyethylene dodecylphenol (CAS# 9014-92-0) and polyoxyethylene nonylphenol (CAS# 27 9016-45-9).

Use: NPEs are widely used to enhance the absorption and efficacy of pesticide ingredients.

Chemical interactions with other substances: NPEs can react with chlorine to form chlorinated alkylphenols.[1] Bacteria help break down NPEs to nonylphenols (NPs) and other more toxic chemicals. In aerobic systems, more carboxylic acid compounds are produced.[2]

Toxicity and environmental persistence: Breakdown products, especially NPs are much more toxic than NPEs;[3,4] and are also estrogenic.[11,5] EPA rates persistence medium to high; degradation products persistent and toxic.[6]

Environmental impacts from its use or manufacture: Bacteria help break down NPEs to nonylphenols (NPs) and other more toxic chemicals. In aerobic systems, more carboxylic acid compounds are produced.[7] The lowest concentration of NPE

[1] A. Michael Warhurst, 1995. An Environmental Assessment of Alkylphenol Ethoxylates and Alkylphenols, Friends of the Earth, UK.

[2] P. Whitehouse, 2002. Environmental Impacts of Alkylphenol Ethoxylates and Carboxylates. Part 1: Proposals for the Development of Environmental Quality Standards. R&D Technical Report P2-115/TR3. Environment Agency, Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol BS32 4UD.

[3] EPA, 2011. DfE Alternatives Assessment for Nonylphenol Ethoxylates.

[4] Andrea Lani, 2010. Basis Statement for Chapter 883, Designation of the Chemical Class Nonylphenol and Nonylphenol Ethoxylates as a Priority Chemical and Safer Chemicals Program Support Document for the Designation as a Priority Chemical of Nonylphenol and Nonylphenol Ethoxylates, Bureau of Remediation and Waste Management, Maine Department of Environmental Protection.

[5] Mark R. Servos, 1999. Review of the Aquatic Toxicity, Estrogenic Responses.
and Bioaccumulation of Alkylphenols and Alkylphenol Polyethoxylates, Water Qual. Res. I. Canada,Volume 34, No. 1, 123-177. A support document for Environment Canada's environmental assessment under the Canadian Environmental Protection Act.

[6] EPA, 2011. DfE Alternatives Assessment for Nonylphenol Ethoxylates.

[7] P. Whitehouse, 2002. Environmental Impacts of Alkylphenol Ethoxylates and Carboxylates. Part 1: Proposals for the Development of Environmental Quality Standards. R&D Technical Report P2-115/TR3. Environment Agency, Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol BS32 4UD.

found to inhibit growth of young terrestrial and aquatic plants or trees was 10 ug/L. NPEs are rapidly taken up by plants and metabolized to polar metabolites. Concentrations of 20-500 mg/L inhibited or restricted growth of soil bacteria. [8] Breakdown products, especially NPs are much more toxic than NPEs;[9,10] also estrogenic. [11]

Effects on human health: NPs and NPEs act as xenoestrogens in human cells.[12]

Effects on soil organisms, crops, or livestock: Because they improve wetting, penetration, absorption, and water solubility characteristics, surfactants are used in formulations of foliar-applied agrochemicals as stabilizing, emulsifying, and dispersing agents. The lowest concentration of APE found to inhibit growth of young terrestrial and aquatic plants or trees was 10 ug/L. NPEs are rapidly taken up by plants and metabolized to polar metabolites. Concentrations of 20-500 mg/L inhibited or restricted growth of soil bacteria. [13]

Case Study 2. Methyl Isobutyl Ketone (MIBK)

Former List 2, Methyl isobutyl ketone is also known as isobutyl methyl ketone, 4-methyl 2-pentanone, MIBK, CAS number 108-10-1. Despite the toxic effects noted below, MIBK has an exemption from tolerance,[14] so there is no limitation on the amount that may be found in food. An exemption from tolerance is not the same as an exemption from registration as a pesticide. Under Section 25(b) of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), a substance that is used as a pesticide (or an "inert" in a pesticide product) may be exempted from the requirement of registration if EPA decides that it poses little to no risk to human

[8] Sylvia S. Talmage, 1994. Environmental And Human Safety Of Major Surfactants: Alcohol Ethoxylates and Alkylphenol Ethoxylates, A report to The Soap and Detergent Association, Lewis Publishers: Boca Raton, Ann Arbor, London, Tokyo. Pp. 288-289.

[9] EPA, 2011. DfE Alternatives Assessment for Nonylphenol Ethoxylates

[10] Andrea Lani, 2010. Basis Statement for Chapter 883, Designation of the Chemical Class Nonylphenol and Nonylphenol Ethoxylates as a Priority Chemical and Safer Chemicals Program Support Document for the Designation as a Priority Chemical of Nonylphenol and Nonylphenol Ethoxylates, Bureau of Remediation and Waste Management, Maine Department of Environmental Protection.

[11] Mark R. Servos, 1999. Review of the Aquatic Toxicity, Estrogenic Responses and Bioaccumulation of Alkylphenols and Alkylphenol Polyethoxylates, Water Qual. Res. I. Canada,Volume 34, No. 1, 123-177. A support document for Environment Canada's environmental assessment under the Canadian Environmental Protection Act.

[12] Mark R. Servos, 1999. Review of the Aquatic Toxicity, Estrogenic Responses and Bioaccumulation of Alkylphenols and Alkylphenol Polyethoxylates, Water Qual. Res. I. Canada,Volume 34, No. 1, 123-177. A support document for Environment Canada's environmental assessment under the Canadian Environmental Protection Act.

[13] Sylvia S. Talmage, 1994. Environmental And Human Safety Of Major Surfactants: Alcohol Ethoxylates and Alkylphenol Ethoxylates, A report to The Soap and Detergent Association, Lewis Publishers: Boca Raton, Ann Arbor, London, Tokyo. Pp. 288-289.

[14] EPA Inert Finder: Methyl Isobutyl Ketone. http://iaspub.epa.gov/apex/pesticides/f?p=INERTFINDER:3:::NO::P3_ID:6044 Accessed 12/30/2015.

health or the environment. However, that chemical may require a tolerance. If EPA finds that a pesticide ingredient the chemical is "considered to be safe enough for the use described in the tolerance exemption that a maximum level does not need to be established," then it may be granted an exemption from the requirement of tolerance.[15]

Use: MIBK is used as a solvent or cosolvent in pesticide products.

Chemical interactions with other substances: In 1999, EPA denied a petition to exclude MIBK from the Toxics Release Inventory because, like other volatile organic chemicals, MIBK contributes to tropospheric ozone.[16]

Environmental persistence: Methyl isobutyl ketone is a colorless, flammable liquid that is moderately soluble in water.[17] If released to air, MIBK will exist as a vapor in the atmosphere and will be degraded by reaction with photochemically-produced hydroxyl radicals, with a half-life of 27 hours. The half-life for direct photolysis of MIBK in the atmosphere is 15 hours. MIBK is expected to have high soil mobility. MIBK may volatilize from wet and dry soil surfaces. Biodegradation is also an important environmental fate process. If released into water, MIBK is not expected to adsorb to suspended solids and sediment. MIBK is expected to biodegrade in seawater and fresh water in both aerobic and anaerobic conditions. Estimated volatilization half-lives for a model river and model lake are 9 hours and 6 days, respectively. An estimated BCF of 2 suggests the potential for bioconcentration in aquatic organisms is low. Hydrolysis is not expected to be important since MIBK lacks functional groups that hydrolyze under environmental conditions.[18]

Environmental and health impacts from its use or manufacture: More than 60 percent of MIBK production comes from a three-step process in which acetone undergoes alkali-catalyzed condensation to form diacetone alcohol, which is dehydrated to mesityl oxide. Selective hydrogenation of the carbon-carbon double bond in mesityl oxide gives MIBK. MIBK may also be produced from isopropanol in a mixed ketones process, with diisobutyl ketone and acetone as co-products.[19] The most likely exposures in the workplace are by inhalation of the vapors and by skin

[15] See http://www.epa.gov/minimum-risk-pesticides/need-tolerances-and-tolerance-exemptions-minimum-risk-pesticides and http://www.epa.gov/minimum-risk-pesticides/minimum-risk-pesticide-definition-and-product-confirmation.
[16] http://www.epa.gov/toxics-release-inventory-tri-program/methyl-isobutyl-ketone-petition. Accessed 12/30/2015.
[17] PubChem: 4-Methylpentan-2-one. https://pubchem.ncbi.nlm.nih.gov/compound/4-Methyl-2-pentanone. Accessed 12/30/2015.
[18] ToxNet. Hazardous Substances Database (HSDB), Methyl Isobutyl Ketone. http://toxnet.nlm.nih.gov/cgi-bin/sis/search2/f?./temp/~5Ol4VG:2.
[19] PubChem: 4-Methylpentan-2-one. https://pubchem.ncbi.nlm.nih.gov/compound/4-Methyl-2-pentanone. Accessed 12/30/2015.

and eye contact. Occupational exposure to methyl isobutyl ketone may occur through inhalation and dermal contact with this compound at workplaces where methyl isobutyl ketone is produced or used. "Monitoring data indicate that the general population may be exposed to methyl isobutyl ketone via inhalation of ambient air, ingestion of food and drinking water, and dermal contact with this compound and other consumer products containing methyl isobutyl ketone."[20]

Effects on human health:

Acute Effects:

Irritating to eyes and mucous membranes: exposure may cause weakness, headache, nausea, lightheadedness, vomiting, dizziness, incoordination, narcosis in humans. Low acute toxicity by inhalation or dermal exposure and moderate acute toxicity by ingestion.

Chronic Effects (Non-cancer):

Chronic occupational exposure has been observed to cause nausea, headache, burning in the eyes, weakness, insomnia, intestinal pain, and slight enlargement of the liver in humans.

Lethargy and increased kidney and liver weights have been observed in rats chronically exposed by gavage, ingestion, and inhalation.

Reproductive/Developmental Effects:

Maternal toxicity and neurological effects and increased liver and kidney weights in fetuses were observed in rats and mice exposed to methyl isobutyl ketone by inhalation.[21]

Cancer Risk:

The International Agency for Research on Cancer (IARC) found:[22]
There is sufficient evidence in experimental animals for the carcinogenicity of methyl isobutyl ketone. Methyl isobutyl ketone is possibly carcinogenic to humans (Group 2B).

Effects on nontarget organisms, crops, or livestock:

The body weight and length was significantly reduced in fathead minnows exposed to 105 mg/L or more MIBK. The mortality of the fish was significantly increased at 418 mg/L.

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[20] ToxNet. Hazardous Substances Database (HSDB), Methyl Isobutyl Ketone. http://toxnet.nlm.nih.gov/cgi-bin/sis/search2/f?./temp/~5Ol4VG:2.
[21] EPA, 2000. Methyl Isobutyl Ketone Hazard Summary. http://www3.epa.gov/airtoxics/hlthef/methyl-k.html.
[22] IARC, 2013. Methyl Isobutyl Ketone, IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Vol. 101, pp. 305-324. http://monographs.iarc.fr/ENG/Monographs/vol101/mono101.pdf.

Aquatic invertebrates are less sensitive than fish to the toxicity of MIBK.

The 8-day threshold for toxicity is 725 mg/L in the green alga Scenedesmus quadricauda, and 136 mg/L in the relatively more sensitive cyanobacterium (blue-green alga) Microcystis aeruginosa.[23]

Context: "Inert" Ingredients in Pesticide Products

Federal Insecticide, Fungicide, and Rodenticide Act

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), which governs the registration and use of pesticides, defines an "inert ingredient" as "an ingredient which is not active." An active ingredient is one that "will prevent, destroy, repel, or mitigate any pest." An "inert" is a substance other than an active ingredient that is intentionally included in a pesticide product – for example, emulsifiers, solvents, carriers, aerosol propellants, dyes, and fragrance. Many "inerts" are used to enhance the action of the "active" ingredients, but some –like dyes and fragrances—may be added the formulation as a warning or to make the product more acceptable.

"Inerts" are not inert.

The "inerts" that are added to improve the action of the active ingredients may be considered synergists. In addition, many "inerts" are toxic by themselves, and may be active ingredients in other products. Most of the tests performed to assess the safety of pesticides are performed on the active ingredients alone, so the impacts of the product are generally unknown. As summarized by Caroline Cox and Michael Surgan, PhD, "Inert ingredients can increase the ability of pesticide formulations to affect significant toxicologic end points, including developmental neurotoxicity, genotoxicity, and disruption of hormone function. They can also increase exposure by increasing dermal absorption, decreasing the efficacy of protective clothing, and increasing environmental mobility and persistence. Inert ingredients can increase the phytotoxicity of pesticide formulations as well as the toxicity to fish, amphibians, and microorganisms."[24]

Secrecy and "inerts"

In general, "inert" ingredients are not listed by name on pesticide labels. There is generally a categorical statement of the percentage of "inert" or "other" ingredients. The exceptions are the most toxic (former List 1) and those products allowed under Section 25(b) of FIFRA –

[23] ToxNet. Hazardous Substances Database (HSDB), Methyl Isobutyl Ketone. http://toxnet.nlm.nih.gov/cgi-bin/sis/search2/f?./temp/~5OI4VG:2.

[24] Cox, C., & Surgan, M. (2006). Unidentified inert ingredients in pesticides: implications for human and environmental health. Environmental health perspectives, 1803-1806.

minimum risk pesticides. These are pesticides that "have been determined to be of a character not requiring regulation under FIFRA, and are therefore exempt from all provisions of FIFRA when intended for use, and used, only in the manner specified."[25] All ingredients, including "inert" ingredients, used in minimum risk pesticide products must be listed on the label.

The secrecy of "inerts" has been claimed to be necessary to protect trade secrets or confidential business information, but the courts have found that not all such information is legally confidential.

Table 1. Inerts Timeline

1961	USDA decided that all components of a pesticide were "pesticide chemicals" requiring a tolerance or exemption from tolerance.
1969	FDA policy establishing data requirements and review procedures for "inerts."
1970	EPA took over pesticide registration, tolerances, and exemptions from tolerance.
1984	EPA confirms the requirement to list carbon tetrachloride, petroleum distillates, methanol, and sodium nitrite on labels. EPA requires acute toxicity testing for pesticide formulations.
1987	Lists 1 and 2, "inerts of toxicological concern" and "potentially toxic inerts/high priority for testing," are published. EPA requires that List 1 "inerts" be identified on product labels and announces that additional data will be required to support continued registration of products containing List 1 "inerts." Subsequently, most List 1 "inerts" disappeared from pesticide products.
1989	EPA divides List 4 ("inerts of minimal concern") into Lists 4A ("ingredients believed to present minimal risk") and 4B (those for which EPA has "sufficient information to conclude that their current use patterns will not adversely affect public health and the environment").
1994	EPA publishes List 4A.
1995	EPA publishes List 4B and List 3 ("inerts of unknown toxicity"), which contained the majority of "inerts."
1996	A legal victory in 1996 by NCAP and NCAMP/Beyond Pesticides showed that manufacturers can reverse engineer their competitors' products and that "inerts" do not fall under the FOIA exemption for trade secrets unless in a specific case, manufacturers are able to prove that competitive harm will result from the release of the information.
1998	NCAP and others submit a rulemaking petition to EPA asking the agency to require that all pesticide ingredients be identified on product labels. A parallel petition was submitted by the attorneys general from seven states and the territory of Guam.
2001	EPA denies petitions of NCAP et al and AGs.
2002	Court upholds EPA denial of petitions.

[25] 40 CFR §152.25.

2006	Petitions from NGOs and AGs to list on label "inerts" identified elsewhere as hazardous. EPA completes the reassessment of "inerts" required by the FQPA. In view of the reliance of the National Organic Program (NOP) on List 4A and 4B, EPA notified the NOP of the revocation of tolerances of some List 4 "inerts."
2009	EPA published ANPR on options for "inerts" disclosure.
2014	CEH, BP, and PSR file complaint for unreasonable delay. EPA retracts 2009 ANPR, saying it will not deal with "inerts" disclosure through rulemaking.
2015	CEH, BP, and PSR file a suit seeking review of EPA's amended response to the petition for rulemaking. The court approves a schedule for briefings and scheduled a hearing for cross-motions for summary judgment on May 11, 2016.
2016	Judge rules in CEH et al. v. Gina McCarthy (EPA) that EPA has no responsibility under federal pesticide law to complete rulemaking on the disclosure of hazardous ingredients in pesticide products. EPA banned 72 of the "inert" ingredients of the 371 petitioned for disclosure.

No more lists

The Food Quality Protection Act of 1996 (FQPA) required the reassessment of existing "inert" ingredient tolerances and tolerance exemptions. EPA now assesses "inerts" based on a much larger set of data.[26] EPA completed the reassessment of "inerts" in 2006, and with that action, discontinued the updating and use of the "inerts" lists. Completed "inert" ingredient tolerance reassessment decision documents are available on EPA's Tolerance Reassessment Decision Document website.[27] In view of the reliance of the National Organic Program (NOP) on Lists 4A and 4B, EPA notified the NOP of the revocation of tolerances of some List 4 "inerts."[28]

Why "inerts" are important

The largest part of a pesticide formulation generally consists of "inert" ingredients –often more than 90%. People may be exposed to these chemicals through their own use of pesticides, use on food they eat, their neighbors' use, or use in public or work places. Since "active" ingredients are identified on the label, people can get information about the impacts of those chemicals on themselves, their children, their pets, and the environment. However, informed decision making at the personal and community levels requires information about all the ingredients in a pesticide product. The "inerts" that are required to be disclosed are the most toxic –which have been mostly phased out by manufacturers– and the least toxic, in products

[26] For more information on EPA's current assessment of "inerts," see http://www.epa.gov/pesticide-registration/inert-ingredients-overview-and-guidance.
[27] Tolerance Reassessment Decision Document http://www.epa.gov/ingredients-used-pesticide-products/inert-ingredients-reassessment-decision-documents.
[28] See NOP Guidance 5008, July 22, 2011. Guidance: Reassessed Inert Ingredients. http://www.ams.usda.gov/sites/default/files/media/5008.pdf.

that do not need to be registered. Most "inert" ingredients fell in the former List 3, "inerts of unknown toxicity," which, along with those formerly on Lists 2, and 4B, (and some on 4A) are not listed on pesticide labels. While these have been assessed for the purpose of tolerance setting, many are known to be toxic. Many are still also used as "active" ingredients in other pesticide products.

"Inert" Ingredients in Organic Production

Organic Foods Production Act (OFPA)

The Organic Foods Production Act of 1990 (OFPA) requires that, with the exception of materials exempt by listing on the National List of Allowed and Prohibited Substances, organic products must be produced without the use of synthetic substances. Section 6517(c)(1)(B)(ii) of OFPA allows the exemption of "synthetic inert ingredients that are not classified by the Administrator of the Environmental Protection Agency (EPA) as inerts of toxicological concern." Like all other exemptions of synthetic materials, "inerts" may be allowed only if the specific exemption is developed according to procedures described in §6517(d), which requires review by the National Organic Standards Board (NOSB). Sections 6518(l) and (m) describe requirements for the review of National List materials, including a requirement to "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."

As is evident from the history above, when OFPA was passed, only the most toxic of the "inert" ingredients had been made public. Thus, the authors of OFPA needed to make provision for the review of "inerts" when their identities did become available. The Senate Report clarifies this:

> Organic farmers also use substances in which the active ingredient is known to be natural but which also contain inert ingredients that are undisclosed as a matter of trade secret law under the Federal Insecticide Fungicide Rodenticide Act. The Committee suspects that many of these inert ingredients are synthetic. For example, adjuvants would fall into this-category.
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> 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.

NOSB efforts regarding "inerts"

Thus, decisions regarding which "inerts" could be used in organic production became the responsibility of the NOSB. Like EPA, the NOSB found "inerts" to be a secondary issue, next to the problem of evaluating the many active substances that had been used in organic production prior to the passage of OFPA. The issue of the review of "inerts" has continued to come up on a regular basis. In fact, there is scarcely a year in which the NOSB has not addressed "inerts." (See Table 2: Timeline of NOSB Actions on "Inerts.")

A series of discussion papers culminated in NOSB recommendations establishing a baseline position and procedures for implementing it. The baseline position adopted in 2010 is, "The NOSB needs to review all inert ingredient components used in current NOP compliant pesticide formulations for consideration for inclusion on the National List." In 2012 and 2014, the NOSB outlined a procedure for evaluating the "inerts" used in organic production in classes of related chemicals with the assistance of EPA's Design for the Environment (DfE –now Safer Choice) program.

Figure 2. Timeline of NOSB Actions on "Inerts"

1992	First NOSB appointed.
1995	NOSB says it will review "inerts" after the National List is published in the Federal Register and passes the resolution, "Inerts on the EPA List 4 are considered generally recognized as safe and will be accepted for organic production, unless 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 forwarded to the EPA as materials for fast-track review and possible reclassification. List 1 inerts are prohibited by the OFPA."
1997	First proposed rule would have allowed all but List 1 "inerts."
1999	NOSB recommends allowing List 4 and prohibiting all others, with the exception of particular List 3 "inerts" approved on a case-by-case basis.
2000	Following the NOSB recommendation, the final rule allowed "inerts" on Lists 4A and 4B.
2002	NOSB votes to allow the use of List 3 "inerts" in passive pheromone dispensers and to temporarily allow List 3 "inerts" while under review.
2004	NOSB and the public objected to a directive by the NOP that allowed the use of pesticides containing undisclosed "inerts," including those on Lists 2 and 3.
2006	EPA tells USDA that it had completed the review mandated by FQPA and would no longer be maintaining the "inerts" lists on which the NOP regulations depended.
2007	NOSB relists List 3 "inerts," limiting the renewal to those identified as List 3 by October 9, 2007 and says, "Future petitions to add, remove or renew an inert ingredient to the National List will need to reference a specific inert ingredient."
2008	NOSB discussion document on "inerts" options.
2009	Another NOSB discussion document on "inerts."

2010	Spring: NOSB establishes the baseline position, "The NOSB needs to review all inert ingredient components used in current NOP compliant pesticide formulations for consideration for inclusion on the National List." The 2010 recommendation also recommended six steps to accomplish the changes in regulation. Inerts Working Group (IWG) is established. Fall: NOSB votes to re-list List 4, with a minority opinion stressing the importance of moving ahead with NOSB review. The summary of the recommendation stated that the relisting was "pending review by the program of inerts individually and as a class of materials."
2011	IWG, through the Crops Subcommittee, submits a discussion document that presents some initial considerations and some proposals.
2012	Spring: NOSB recommends an expiration date of October 21, 2017 for List 3 "inerts" in passive pheromone dispensers, to coincide with the sunset date for List 4 "inerts." The NOP refused to codify the recommendation. Fall: NOSB follows up on the IWG's 2011 discussion document by unanimously recommending a changed annotation and a plan of action. NOSB proposes to review of "inerts" by classes.
2013	In its response to the fall 2012 NOSB meeting, the NOP said it intends to conduct a public notification and comment process, including notification to the public of "inert" ingredients known to be used in organic production and NOSB's review plan, and a request for public comments regarding any other "inert" ingredients currently used in organic production that are not identified in the list provided by the NOP. It said that changes to the National List would be considered after NOSB completion of "inerts" review. Spring: NOP reiterates its intentions as stated in its response to the fall 2012 meeting and said that a Federal Register notice to this effect was in review.
2014	Spring: NOP update describes meetings with EPA Design for the Environment (DfE) program and suggests the possibility of cooperating with DfE on "inerts." Fall: NOP reports that since the spring meeting: Office of General Counsel (OGC) reviewed the concept of collaborating with EPA; NOP provided more background to DfE; and NOP has been planning for interagency meetings. NOP sees next steps: (1) NOP and EPA meet further to develop plans for collaboration; (2) NOP consults with NOSB on options; and (3) public notice will be given via Federal Register.
2015	Spring: NOP provides a TR for one category of List 4 inerts –nonylphenol ethoxylates (NPEs). NOP and DfE (now Safer Choice) presentations. NOP outlined "next steps": (1) NOSB reviews Safer Choice to consider referring to it for "inerts" review, (2) NOSB reviews current List 4 reference as part of 2017 sunset review, (3) NOSB and IWG may draft alternate language proposal to replace current references to List 4 and List 3-for fall 2015 meeting, (4) NOSB reviews EPA Safer Choice Criteria, and compares to OFPA criteria. Fall: NOSB passes an annotation to the List 4 listing on the National List that allows: (i) substances permitted for use in minimal risk products, (ii) substances included on the EPA's Safer Chemical Ingredients List, (iii) "inert" ingredients that are exempt

	from the requirement of a tolerance for use only in passive pheromone dispensers, and (iv) other inerts individually petitioned and reviewed.
2016	Spring: Crops Subcommittee presents a discussion document on a proposal to prohibit use of NPEs. Fall: Saying that the listing will be superseded by the annotation change approved at the Fall 2015 meeting, the NOSB votes to relist List 3 "inerts." No further action on NPEs.

However, the recommendation passed in the fall of 2015 broke from the long-held principle that the NOSB should review all "inerts." It is inconsistent with all previous NOSB recommendations and inconsistent with the spring 2015 descriptions by NOP and EPA of how the review process would work. See Table 4 for a summary of the differences between the use of the Safer Chemical Ingredients List (SCIL) as described in spring 2015 and as recommended by the NOSB in fall 2015.

Table 3. Comparison of Safer Chemical and NOSB Approach

Spring 2015 Description –NOP and EPA	Fall 2015 NOSB Recommendation
NOSB decides what "inerts" are allowed.	EPA decides what "inerts" are allowed.
NOSB uses EPA reviews and applies additional OFPA criteria.	EPA uses SCIL criteria; NOSB can address gaps in periodic review of SCIL.
Allowable "inerts" are on National List.	Allowable "inerts" are on EPA's Safer Chemical Ingredient List (SCIL).
Allowable "inerts" might be listed on a sublist of the SCIL, "Inert ingredients for use in pesticides in organic production," which would start with 126 known to be used in organic production with additions by petition.	Any substance on any of the SCIL sublists is an "inert" allowable for use in organic production,
Allows only "inerts" formerly on List 4A or 4B, a few on List 3, or petitioned.	Materials on SCIL include active ingredients like antimicrobials and industrial chemicals.
"Inerts" are subject to sunset review.	The NOSB "may" review the SCIL.
There is a process, subject to public notice and comment, for adding and removing "inerts" from the National List.	There is no process for the public to initiate additions or subtractions, and no public comment process.

OFPA review of actives and "inerts"

A synthetic material may be used in organic production only after a review and recommendation by the NOSB based on three criteria, that the substance

(i) would not be harmful to human health or the environment;

(ii) is necessary to the production or handling of the agricultural product because of the unavailability of wholly natural substitute products; and

(iii) is consistent with organic farming and handling;[29]

So far these criteria have been applied only to those ingredients in pesticide products that are identified as "active," and not to "inert" ingredients. As a result, the most toxic ingredients in pesticide products used in organic production may be the "inerts." Since the "inerts" frequently make up 90% or more of a pesticide product, the failure of the NOSB to review them results in the allowance of products that are more toxic than believed by organic consumers.

Comparison of toxicity of "inerts" and "actives" in organic

There is a relatively short list of synthetic active ingredients allowed to be used in pesticides in organic production. In addition, natural active ingredients are also permitted. Table 4 lists the synthetic pesticides permitted for use in organic crop and livestock production. Table 5 lists the synthetic "inert" ingredients known to be used in organic production.[30] See Appendix 1 for Lists 4A and 4B –all the "inerts" allowed for use in organic production.

While there are concerns about some of the active ingredients used in organic production –for example, we have concerns about cradle-to-grave impacts of chlorine materials, and copper-based materials may have detrimental impacts on soil organisms– there are many more issues with the allowed "inert" ingredients.

The endocrine-disrupting nonylphenol ethoxylates examined above are in the class "alkylphenol ethoxylates" in Table 5. Here are a few of the hazards associated with some other "inerts" known to be used in organic production:

- **EDTA and its salts, Ethylenediaminetetraacetic acid (EDTA) (CAS# 60-00-4) and Ethylenediaminetetraacetic acid (EDTA), tetrasodium (CAS# 64-02-8):** EDTA is a chelating agent whose affinity for alkaline-earth ions (for example, calcium and magnesium) and heavy-metal ions (for example, lead and mercury) generally results in the formation of highly stable and soluble complexes. When released to soil, EDTA causes an increase in the total solubility of the metals. The toxic effects of EDTA are mostly related to metal deficiencies, especially a deficiency of zinc. Studies show it to affect inhibition of DNA synthesis and enhance mutagen-induced aberration frequencies by interfering with the DNA repair process that takes place after exposure to mutagens.[31]

[29] OFPA §6517(c)(1)(A)

[30] Johanna Mirenda, Technical Director of OMRI, explained at the Fall 2015 meeting (p. 603 of transcript): "In 2011, OMRI was asked by the NOP to provide a list of inert ingredients in OMRI listed pesticides for use by the Inerts Working Group. We provided a non-confidential list of inerts included in OMRI listed products without associating them with any specific products."

[31] EPA Office of Prevention, Pesticides, and Toxic Substances, 2004. Memo from Betty Shackleford, Registration Division, to Peter Caulkins, Special Review and Registration Division concerning Lower Toxicity Pesticide Chemical Focus Group Decision Document for ethylenediaminetetraacetic acid (EDTA) and its salts. http://www.epa.gov/opprd001/inerts/edta.pdf

- **Butylated hydroxytoluene (BHT) (CAS# 128-37-0) preservative/antioxidant:** The dispenser products in which it is used have undergone expedited review by the Environmental Protection Agency and therefore the mammalian toxicity, ecological effects, and environmental fate and groundwater data have for the most part been waived. Therefore, little environmental information is available on the effects of using BHT as an "inert" to terrestrial invertebrates or aquatic invertebrates and vertebrates.[32] BHT is considered irritating to the eyes, respiratory system, and skin under European classification. Allergic contact dermatitis and contact urticaria are associated with exposure. It is currently listed as "unclassifiable" in regard to its carcinogenicity in humans (due to limited human test data), however a variety of in vitro and animal studies have shown it to have carcinogenic, tumorigenic, mutagenic, and teratogenic effects in animals as well as in human. Studies have also confirmed BHT to have estrogenic activity, and chronic exposure to BHT may cause reproductive and fetal effects.[33]
- **2-Hydroxy-4-n-octyloxybenzophenone (methanone) (CAS # 1843-05-6) UV absorber:** Ciba submitted three substantial risk reports under TSCA for sensitization.[34] Related compounds in the benzophenone family have been shown to form estrogenic photoproducts, upon exposure to UV or sunlight.[35] EPA has added methanone to its TSCA Workplan for Chemical Assessments based on its acute and chronic aquatic toxicity.[36]

Tables 5 and 6 contain lists of active and "inert" ingredients in pesticides known to be used in organic crop and livestock production, respectively, checked against some toxicity screens –the Beyond Pesticides Gateway, Pesticide Action Network North America, Hazardous Substances Database, and EPA's Ecotox database. A summary is presented in Table 4. There is little information in these databases regarding many "inerts." Nevertheless, we can form some conclusions:

- There are many more synthetic substances used as "inert" ingredients in pesticides in organic production (127) than as active ingredients (39).
- "Inerts" do not differ very much from actives in the range of effects seen.
- In spite of the more complete information available in these databases regarding active ingredients, there are more "inert" chemicals used in organic production known to have almost every type of toxic impact.

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[32] TAP review of BHT (lines 348-351).

[33] Safety Review of Checkmate Chemicals, by Don't Spray California. http://www.dontspraycalifornia.org/Safety%20of%20Checkmate%20Chemicals%202-06-08.pdf

[34] Submitted under TSCA section 8(e): http://java.epa.gov/chemview?tf=0&ch=1843-05-6&su=2-5-6-7&as=3-10-9-8&ac=1-16-6378999&ma=4-11-1981377&tds=0&tdl=10&tas1=1&tas2=asc&tas3=undefined&tss=&modal=detail&modalId=314006&modalSrc=5.

[35] Safety Review of Checkmate Chemicals, by Don't Spray California. http://www.dontspraycalifornia.org/Safety%20of%20Checkmate%20Chemicals%202-06-08.pdf.

[36] http://op.bna.com.s3.amazonaws.com/env.nsf/r%3FOpen%3dprio-9q6tx4.

- Of the "inerts" about which information is available, some present serious problems and others appear to be fairly harmless.

Table 4. Total Number of Active and Inert Ingredients Allowed in Organic Production by Categories of Harm

	Acute toxicity	Neurotoxic	Carcinogenic	Developmental / Reproductive	Kidney/Liver Damage	Sensitizer	Endocrine Disruption	Soil Mobility	Toxic to Birds	Aquatic toxicity	Toxic to bees
Number of actives	8	1	2	6	2	8	1	1	1	19	5
Number of "inerts"	20	4	4	5	4	15	4	1	0	65	4

Table 5. Synthetic Active Pesticide Ingredients Allowed in Organic Crop and Livestock Production[37] by Categories of Harm

	Acute toxicity	Neurotoxic	Carcinogenic	Developmental / Reproductive	Kidney/Liver Damage	Sensitizer	Endocrine Disruption	Soil Mobility	Toxic to Birds	Aquatic toxicity	Toxic to bees
Ethanol			x*[38]	x*						x+	
Isopropanol		x								x	
Ammonium carbonate											
Aqueous potassium silicate											
Boric acid				x		x					
Chlorhexidine	x					x					
Chlorine materials: calcium hypochlorite, chlorine dioxide, sodium hypochlorite	x			x		x				x	
Copper sulfate				x	x	x			x	x	
Coppers, fixed: copper hydroxide, copper							x			x	

[37] Pesticidal materials only, from organic regulations at §205.601 and §205.603.
[38] Databases distinguish ethanol in alcoholic beverages (*) from other uses (+).

oxide, copper oxychloride											
Elemental sulfur						x		x			
Ethylene gas	x			x						x	
Ferric phosphate											
Formic acid	x				x	x				x	
Herbicides, soap-based										x	
Hydrated lime	x									x	
Hydrogen peroxide						x				x	
Iodine	x									x	
Lime sulfur										x	x
Mineral oil										x	x
Oils, horticultural			x								x
Ozone gas	x			x		x				x	
Fenbendazole	N/A*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ivermectin										x	
Moxidectin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Peroxyacetic/peracetic acid	x									x	
Pheromones											
Phosphoric acid										x	
Potassium bicarbonate										x	
Soap-based algicide/demossers.										x	
Soaps, ammonium											x
Soaps, insecticidal											x
Sodium carbonate peroxyhydrate											
Sticky traps/barriers											
Sucrose octanoate esters											
Vitamin D_3											
Number of actives	8	1	2	6	2	8	1	1	1	19	5

*N/A = Information not available from databases.

Table 6. “Inert” Ingredients Known to be Used in Organic Production

	Acute toxicity	Neurotoxic	Carcinogenic	Dev/Repro	Kidney/Liver Damage	Sensitizer	Endocrine Disruption	Soil Mobility	Toxic to Birds	Aquatic toxicity	Toxic to bees
Alkyl alcohols											
Hexanol (CAS# 111-27-3)										x	
1-Butanol (CAS# 71-36-3)		x								x	
Ethanol (CAS# 64-17-5)			x*[39]	x*						x+	
Alkyl alkoxylates											
Alcohols, C11-15-secondary, ethoxylated (CAS# 68131-40-8)	x									x	
Alcohols, C12-15, ethoxylated propoxylated (CAS# 68551-13-3)										x	
Alcohols, C12-18, ethoxylated propoxylated (CAS# 69227-21-0)											
Alcohols, C9-16, ethoxylated (CAS# 97043-91-9)	N/A*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Poly(oxy-1,2-ethanediyl),.alpha.-hydro-.omega.-hydroxy-, mono-C11-14-isoalkyl ethers, C13-rich, phosphates (CAS# 78330-24-2)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Polyoxyethylene 2,6,8-trimethyl-4-nonyl ether (CAS# 60828-78-6)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Polyoxyethylene dodecyl mono ether (CAS# 9002-92-0)	x									x	
Polyoxyethylene mono(cis-9-octadecenyl) (CAS# 9004-98-2)										x	
Alkylphenol ethoxylates											
p- Nonylphenol, ethoxylated (CAS# 26027-38-3)				x		x	x			x	
Polyoxyethylene (1,1,3,3-tetramethylbutyl)phenyl ether (CAS# 9036-19-5)							x			x	
Polyoxyethylene dodecylphenol (CAS# 9014-92-0)											
Polyoxyethylene nonylphenol (CAS# 9016-45-9)				x			x			x	
Dyes											
Copper phthalocyanine blue (CAS# 147-14-8)											
FD&C Red No. 40 (CAS# 25956-17-6)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

[39] Databases distinguish ethanol in alcoholic beverages (*) from other uses (+).

EDTA and salts											
Ethylenediaminetetraacetic acid (EDTA) (CAS# 60-00-4)				x		x				x	
Ethylenediaminetetraacetic acid (EDTA), tetrasodium (CAS# 64-02-8)				x		x				x	
Fatty acid ethoxylates											
Polyoxyethylene monolaurate (CAS# 9004-81-3)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Polyoxyethylene monooctadecyl ether (CAS# 9005-00-9)										x	
Polyoxyethylene monooleate (CAS# 9004-96-0)											
Polyoxyethylene monostearate (CAS# 9004-99-3)										x	
Fatty acids, esters and salts											
Fatty acids, C16-18 & C18-unsatd., Me esters (CAS# 67762-38-3)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fatty acids, C16-18 and C18-unsatd (CAS# 67701-08-0)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Methyl oleate (CAS# 112-62-9)											
Polyglyceryl Phthalate Ester of Coconut Oil Fatty Acid (CAS# 66070-87-9)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Potassium coconut oil soap (CAS# 61789-30-8)											x
Potassium salts of fatty acids (C8-18 and C18 unsatd.) (CAS# 67701-09-1)											x
Low Risk Polymer as defined under 40 CFR 180.960											
Acrylic acid polymer (CAS# 9003-01-4)											
Acrylic acid polymer, sodium salt (CAS# 9003-04-7)											
Dimethyl silicone polymer with silica (CAS# 67762-90-7)											
Polyvinyl acetate (CAS# 9003-20-7)											
Polyvinyl chloride resin (CAS# 9002-86-2)	x										
Polyvinylpyrrolidone (CAS# 9003-39-8)					x					x	
Rosin, maleated, polymer with pentaerythritol (CAS# 68333-69-7)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vinyl alcohol-vinyl acetate copolymer (CAS# 25213-24-5)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mineral acids, bases, and inorganic (their) salts											
Acetic acid, ammonium salt (CAS# 631-61-8)										x	
Ammonium chloride (CAS# 12125-02-9)	x				x	x				x	

Ammonium hydroxide (CAS# 1336-21-6)	x									x	
Ammonium phosphate (monobasic) (CAS# 7722-76-1)	x									x	
Calcium chloride (CAS# 10043-52-4)										x	
Calcium hydroxide (CAS# 1305-62-0)	x									x	
Calcium oxide (CAS# 1305-78-8)										x	
Carbonic acid, dipotassium salt (CAS# 584-08-7)	x									x	
Carbonic acid, disodium salt (CAS# 497-19-8)										x	
Diammonium phosphate (CAS# 7783-28-0)										x	
Diphosphoric acid, tetrasodium salt (CAS# 7722-88-5)										x	
Disodium phosphate (CAS# 7558-79-4)										x	
Hydrogen chloride (CAS# 7647-01-0)	x					x				x	
Phosphoric acid (CAS# 7664-38-2)										x	
Potassium hydroxide (CAS# 1310-58-3)	x									x	
Potassium phosphate (dibasic) (CAS# 7758-11-4)										x	
Potassium phosphate, monobasic (CAS# 7778-77-0)										x	
Silicic acid (H2SiO3), disodium salt (CAS# 6834-92-0)						x				x	
Sodium acid pyrophosphate (CAS# 7758-16-9)											
Sodium tripolyphosphate (CAS# 7758-29-4)	x					x				x	
Sulfuric acid (CAS# 7664-93-9)	x		x							x	
Tricalcium phosphate (CAS# 7758-87-4)										x	
Nonsynthetic											
Ascophyllum nodosum, ext (CAS# 84775-78-0)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Clay (CAS# 70131-50-9)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
d- Limonene (CAS# 5989-27-5)						x				x	
Milk, hydrolyzed (CAS# 68514-61-4)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Oil, rosemary (CAS# 8000-25-7)										x	
Orange oil (CAS# 8008-57-9)											
Pine oil (CAS# 8002-09-3)	x	x				x				x	
Pyrophyllite (CAS# 12269-78-2)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sweet orange peel tincture (CAS# 8028-48-6)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Talc (CAS# 14807-96-6)			x								
Wheat flour (CAS# 130498-22-5)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Whey (CAS# 68608-58-2)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Organic acids and salts											
Acetic acid (CAS# 64-19-7)	x					x		x		x	

Octanoic acid (CAS# 124-07-2)										x	x
Propanoic acid (CAS# 79-09-4)	x									x	x
Polyalkoxylates and polyalkoxylated alkyl ethers											
Oxirane, methyl-, polymer with oxirane, mono[2-(2-butoxyethoxy) ethyl] ether (CAS# 85637-75-8)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Polyethylene glycol (CAS# 25322-68-3)						x				x	
Polyethylene glycol ether with 1,4-diisobutyl-1,4-dimethylbutynediol (2:1) (CAS# 9014-85-1)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Polyethylene-polypropylene glycol, monobutyl ether (CAS# 9038-95-3)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Polyoxyethylene-polyoxypropylene copolymer (CAS# 9003-11-6)										x	
Polysorbates											
Polyoxyethylene sorbitan monolaurate (CAS# 9005-64-5)										x	
Polyoxyethylene sorbitan monooleate (CAS# 9005-65-6)										x	
Polyoxyethylene sorbitan trioleate (CAS# 9005-70-3)											
Polyoxyethylene sorbitan tristearate (CAS# 9005-71-4)											
Polyoxyethylene sorbitol hexaoleate (CAS# 57171-56-9)											
Preservatives / Antioxidants											
Benzoic acid (CAS# 65-85-0)										x	
Butylated hydroxytoluene (BHT) (CAS# 128-37-0)										x	
Calcium propionate (CAS# 4075-81-4)											
Ethoxyquin (CAS# 91-53-2)					x	x				x	
Methyl p-hydroxybenzoate (CAS# 99-76-3)						x				x	
Propyl p-hydroxybenzoate (CAS# 94-13-3)						x	x			x	
Sorbic acid (CAS# 110-44-1)										x	
Tall oil and terpene derivatives											
Copolymer of alpha- and beta-pinene (CAS# 31393-98-3)											
Homopolymer of alpha-pinene (CAS# 25766-18-1)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Homopolymer of beta-pinene (CAS# 25719-60-2)											
Tall oil (CAS# 8002-26-4)											
Terpenes and terpenoids, terpentine oil, alpha-pinene fraction polymerized (CAS# 70750-57-1)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

TBD											
Hydroxyethylidene-1,1-diphosphonic acid (CAS# 2809-21-4)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,1-difluoroethane (CAS# 75-37-6)	x					x					
2-(2-hydroxy-3-tert-butyl-5-methylphenyl)-5-chlorobenzotriazole (CAS# 3896-11-5)											
2,2-hydroxy-4-n-octyloxybenzophenone (CAS# 1843-05-6)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	x	N/A
Aluminum sulfate (CAS# 10043-01-3)		x								x	
Benzopyran-6-ol,3,4-dihydro-2,5,7,8-2H-1-tetramethyl-2-(4,8,12-trimethyltridecyl)- (CAS# 10191-41-0)											
Castor oil, ethoxylated (CAS# 61791-12-6)										x	
Chitosan (CAS# 9012-76-4)										x	
Corn steep liquor (CAS# 66071-94-1)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dodecyl sulfate, sodium salt (CAS# 151-21-3)										x	
Ethylenediamine-N,N'-disuccinic acid (EDDS) (CAS# 20846-91-7)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lignosulfonic acid, calcium salt (CAS# 8061-52-7)											
Lignosulfonic acid, sodium salt (CAS# 8061-51-6)										x	
Manganese sulfate monohydrate (CAS# 10034-96-5)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N,N-Bis(2-hydroxyethyl)(coconut oil alkyl)amine (CAS# 61791-31-9)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Naphthalenesulfonic acid, polymer with formaldehyde, sodium salt (CAS# 9084-06-4)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	x	N/A
Oxirane, methyl-, polymer with oxirane, mono[3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]disiloxanyl]propyl] ether (CAS# 134180-76-0)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Oxirane, methyl-, polymer with oxirane, mono-2-propenyl ether (CAS# 9041-33-2)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Poly(oxy-1,2-ethanediyl),.alpha.-undecyl-.omega.-hydroxy-, branched and linear (CAS# 127036-24-2)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Poly(oxy-1,2-ethanediyloxycarbonyl-1,4-phenylenecarbonyl (CAS# 25038-59-9)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Polyoxyethylene tristyrylphenol phosphate, potassium salt (CAS# 163436-84-8)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Polypropylene glycol (CAS# 25322-69-4)	x	x								x	
Propylene glycol (CAS# 57-55-6)	x									x	
Silicones and siloxanes, dimethyl (CAS# 63148-62-9)										x	
Sodium bis(2-ethylhexyl) sulfosuccinate (CAS# 577-11-7)	x									x	
Sorbitan monostearate (CAS# 1338-41-6)											
Titanium dioxide (CAS# 13463-67-7)			x							x	
Tridecanol, ethoxylated, phosphate ester (CAS# 26915-70-8)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Triethanolamine, compd. with poly(oxyethylene) tristyrylphenyl ether (CAS# 105362-40-1)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tannic Acid (Tannin) (CAS# 1401-55-4)	x				x					x	
Number of "inerts"	**20**	**4**	**4**	**5**	**4**	**15**	**4**	**1**	**0**	**65**	**4**

Comparison of toxicity of "inerts" in organic with "inerts" generally

There are more than 2000 substances listed by EPA as "inert" ingredients.[40] Many of these are of low toxicity, but about half are considered by EPA to be "at least moderately risky."[41] EPA has assessed the toxicity of "inerts" for the purpose of tolerance setting and categorizing them as allowed for food use or non-food use, but has not performed a full battery of tests either on "inert" ingredients or complete formulations including active and "inert" ingredients.

Although the old lists 1, 2, 3, 4A, and 4B are no longer maintained, the descriptions of those not allowed in organic production is illuminating:[42]

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.
- Original listing of List 1 inert ingredients contained over 50 chemical substances. Today approximately 10 of these substances are still used in pesticide products.

List 2: Potentially Toxic Other Ingredients/High Priority for Testing inerts

- Many List 2 inert ingredients are structurally similar to chemicals known to be toxic; some have data suggesting a concern.

[40] https://iaspub.epa.gov/apex/pesticides/f?p=INERTFINDER:2:::NO:::.
[41] Cox, C., & Surgan, M. (2006). Unidentified inert ingredients in pesticides: implications for human and environmental health. Environmental health perspectives, 1803-1806.
[42] https://www.epa.gov/pesticide-registration/categorized-lists-inert-ingredients-old-lists.

Moving Forward

The Safer Chemical Ingredients List (SCIL)

Safer Choice is a non-regulatory labeling program through which EPA identifies products that meet certain health and environmental criteria. For its first 15 years of existence, Safer Choice was called "Design for the Environment" (DfE), and pesticide products can still receive the DfE label. The Safer Choice criteria consist of "master criteria" and criteria specific to a chemical's functional class (such as solvent, surfactant, chelating agent, etc.)

All SCIL chemicals must meet general and functional-class criteria concerning acute mammalian toxicity, carcinogenicity, genetic toxicity, neurotoxicity, repeated dose toxicity, reproductive and developmental toxicity, respiratory sensitization, skin sensitization, environmental toxicity and fate, and eutrophication. While these criteria address many issues covered in NOSB reviews according to OFPA criteria, they do not address some important elements of OFPA reviews, including impacts on soil organisms and the agroecosystem, essentiality/need, hazards associated with manufacture, transportation, and disposal, and compatibility with organic production systems. Chemicals on the SCIL are given ratings:[43]

> **Green circle** - The chemical has been verified to be of low concern based on experimental and modeled data.
>
> **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.
>
> **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. 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.
>
> **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, even for the OFPA criteria that <u>are</u> included in the review of the SCIL, those with a yellow triangle and gray square rating would <u>not</u> meet OFPA criteria, and those with a green half circle have inadequate data. As of March 2017, the SCIL contains 824 chemicals, some of which are listed in more than one of the 16 categories.[44] There are 353 List 4A or 4B "inerts" that were on the SCIL, and therefore the NOSB recommendation will allow 471 <u>more</u> chemicals that have not

[43] Quoted from http://www.epa.gov/saferchoice/safer-ingredients.

[44] As of March 29, 2017, there are 824 chemicals on the SCIL, with a total of 875 listings in 16 categories. It is possible that some "inerts" on the list provided to the IWG are no longer used, or that others are now used.

been reviewed by the NOSB to be used as "inerts" in organic production.[45] Only 49 of the 126 "inerts" known to be used in organic production are currently on the SCIL. Furthermore, it would allow 189 chemicals not currently on Lists 4A or 4B that are coded with a yellow triangle or gray square, and an additional 63 that are coded with a green half circle.

Numbers of Chemicals						
List	**Green Circle**	**Half Green Circle**	**Yellow Triangle**	**Gray Square**	**Not on SCIL**	**Totals**
4A	52	3			84	139
4B	38	2	15		172	227
Not on 4A or 4B	417	78	192	1		688
Totals	**507**	**83**	**207**	**1**	**256**	**1054**

How to Use the Safer Choice Program (SCP) and the SCIL to Evaluate "Inerts"

Although the recommendation passed by the NOSB at its fall 2015 meeting is inadequate to ensure that "inerts" meet OFPA criteria, the SCP and SCIL can be helpful to the NOSB in reviewing these materials.

- NOP can contract with the SCP to review "inerts" to OFPA criteria. This could result in Technical Reviews that would be used by the NOSB in its decisions.
- The SCP can create a new functional class, synthetic non-pesticidal ingredients in pesticides used in organic production. This class would have sub-classes, many or all of which may correspond to existing SCIL functional classes –surfactants, fragrances, polymers, for example.
- In conjunction with the NOSB and NOP, the SCP can create an expanded list of criteria that apply to the new class and subclasses and include OFPA criteria. This list of criteria is included in the checklist used by the NOSB to evaluate
- The review of chemicals for this list should include the SCP's review (the Technical Review) to expanded criteria, as well as the NOSB review.

NOP Response to NOSB Fall 2015 Recommendation

NOP issued the following response to the Fall 2015 recommendation:

> The NOP has reviewed the NOSB's recommendation and plans to collaborate further with EPA's Safer Choice Program to develop a program for inert ingredient review, and to initiate notice and comment rulemaking to revise the annotations for inert ingredients at 205.601(m) and 205.603(e).[46]

[45] As of this writing, the last update to the list was September 26, 2016.
[46] Miles McEvoy, February 29, 2016 Memorandum to NOSB.

Next Steps

The NOSB proposed that a memorandum of understanding (MOU) with EPA would finalize the agreement between NOP and the Safer Choice Program to spell out the details of how the recommendation would actually be implemented. In an October 7, 2016 conference call meeting with members of the National Organic Coalition, USDA Deputy Director (NOP) Miles McEvoy indicated that he has no idea of when the implementation will occur. He also said that the program does not usually accept public input into memoranda of agreement. Nevertheless, given the vacuum of experience at NOP and on the NOSB, some suggestions for elements to be included in the MOU may be needed.

The MOU is between EPA and USDA, but also involves the NOSB as a crucial part of materials review. Below is a description of the procedure for evaluating "inerts" to be covered by the MOU, followed by a description of the responsibilities of each body (NOP, EPA, and NOSB). It is based on the NOSB recommendations made in fall 2012 and fall 2015.

Timeframe

The fall 2012 NOSB recommendation said, in part:

> H. The anticipated timeline will enable the NOSB to finalize the procedure by spring 2013, start reviews for fall 2013 and to have as many reviews completed as possible by spring 2015. The intention is to have an amendment to the National List in 2017, which will address the materials reviewed with an implementation period of 2 - 5 years, taking into account public comment and the need for additional reviews for reformulation and compliance.
>
> I. By the time of the five-year sunset period the NOSB will approach a review of those inert substances permitted for use in minimal risk products exempt from pesticide registration under FIFRA section 25(b).

This timeframe is now delayed by four years –finalizing the procedure in 2017, resulting in completion in 2021.

MOU Procedure

1. NOP must immediately (as stated in the NOP response to Fall 2012 proposals) conduct a public notice and comment process including:
    a. Notification to the public of "inert" ingredients known to be in use in organic production;
    b. Notification to the public of NOSB's review plan; and
    c. A request for public comments regarding any other "inert" ingredients currently used in organic production that are not identified in the list provided by NOP.

2. NOP will publish for public comment a description of this MOU as a description of the means of implementing the Fall 2015 NOSB recommendation. It will state that "on the SCIL" means "on the section of the SCIL identified as 'Ingredients Other than Active Ingredients in Pesticides Used in Organic Production.'" This may be the same Federal Register notice as the above notice.
3. EPA will create a new section of the Safer Chemical Ingredient List (SCIL) for "Ingredients Other than Active Ingredients in Pesticides Used in Organic Production." This list will contain sublists by the function –such as surfactants, chelating agents, and antioxidants— that they perform in the pesticide product.
4. EPA will identify products in use in organic production in which the "inerts" identified by NOP are used, the function of each "inert" ingredient within the products, and alternative materials that serve the same function.
5. In concert with NOP and the NOSB, EPA will divide the list of "inerts" into five groups and review one group per year. One year's review group may include one or more functional classes.
6. EPA will evaluate the "inerts" identified by NOP and the EPA alternatives according to the criteria appropriate for the substance's function and will assign ratings according to the current practice within the Safer Choice Program (SCP) –i.e., green circle, green half-circle, yellow triangle, and gray square.
7. EPA's review will cover all topics covered in a technical review commissioned for the NOSB, as well as the topics required to rate the substances according to the SCP. To minimize duplication of work and ease NOSB review, a single review will cover chemicals in the same functional class.
8. EPA will provide a public version of the information it reviews to the NOSB, which will be used as a technical review. It will be posted on the NOP website for public viewing. It will contain the following:
    a. a chart of all inerts in the class identified by CAS number with their chemical properties, uses, types of product categories in which they occur, EPA regulatory status, including data gaps.
    b. a description of how inerts within the class are related and how different, especially outliers that are significantly different from others.
    c. a chart that evaluates each inert in the class under the screening steps suggested by NOSB and any additional screening recommended by the NOSB, with input from the IWG.
    d. OFPA criteria will be addressed that are not usually covered in the EPA review (environment, interactions, and alternatives or essentiality).
9. Based on results of the group TR, the NOSB Crops Subcommittee will accept the class to move forward to the NOSB agenda, or single out one or more substance for individual review –in which case, the group will then move forward without that substance and that one will be re-reviewed in more detail if necessary.
10. The NOSB will review the information provided by EPA according to its usual materials review procedures, subjecting them to OFPA criteria.

11. In accordance with its meeting and notice procedures, after NOP publishes the NOSB proposal for listing a class of "inerts" on the National List (as part of the SCIL sublist for "Ingredients Other than Active Ingredients in Pesticides Used in Organic Production"), the NOSB will vote on the proposals and recommend listing or not listing each class.
12. NOP will publish recommendations from the NOSB for public comment according to its usual National List procedures, gather public comment, and finalize the listing.
13. EPA will add the approved chemicals, with approved annotations, to the appropriate subsection of the SCIL sublist for "Ingredients Other than Active Ingredients in Pesticides Used in Organic Production."

MOU Responsibilities

NOP:

- NOP must immediately (as stated in the NOP response to Fall 2012 proposals) conduct a public notice and comment process including:
    - Notification to the public of "inert" ingredients known to be in use in organic production;
    - Notification to the public of NOSB's review plan; and
    - A request for public comments regarding any other "inert" ingredients currently used in organic production that are not identified in the list provided by NOP.
- NOP will publish for public comment a description of this MOU as a description of the means of implementing the Fall 2015 NOSB recommendation. It will state that "on the SCIL" means "on the section of the SCIL identified as 'Ingredients Other than Active Ingredients in Pesticides Used in Organic Production.'" This may be the same Federal Register notice as the above notice.
- NOP will publish in the Federal Register recommendations from the NOSB for public comment according to its usual National List procedures, gather comments, and send the finalized listing to EPA.
- NOP will provide expertise as needed to EPA to address issues not generally covered by EPA's Safer Choice reviews.

EPA:

- EPA will create a new section of the Safer Chemical Ingredient List (SCIL) for "Ingredients Other than Active Ingredients in Pesticides Used in Organic Production." This list will contain sublists by the function –such as surfactants, chelating agents, and antioxidants—they perform in the pesticide product.
- EPA will identify products in use in organic production in which the "inerts" identified by NOP are used, the function of each "inert" ingredient within the products, and alternative materials that serve the same function.
- In concert with NOP and the NOSB, EPA will divide the list of "inerts" into five groups and review one group per year. Each group may contain one or more functional class.

- EPA will evaluate the "inerts" identified by NOP and the EPA alternatives according to the criteria appropriate for the substance's function and will assign ratings according to the current practice within the Safer Choice Program –i.e., green circle, green half-circle, yellow triangle, and gray square.
- EPA will provide a public version of the information it reviews to the NOSB.
- EPA will list in the appropriate section of "Ingredients Other than Active Ingredients in Pesticides Used in Organic Production" those "inerts" approved by the NOSB and NOP.

NOSB:

- The NOSB will review the information provided by EPA according to its usual materials review procedures, subjecting them to OFPA criteria.
- In accordance with its meeting and notice procedures, after NOP publishes NOSB proposals for listing of "inerts" on the National List and the SCIL sublist for "Ingredients Other than Active Ingredients in Pesticides Used in Organic Production," the NOSB will vote on the proposals and recommend listing or no listing of each.

Conclusion

The continued allowance of "inert" ingredients as listed based on an obsolete categorization by EPA jeopardizes the integrity of the organic label. These ingredients frequently compose as much as 99% of pesticide products and due to NOSB scrutiny of active ingredients may be the most hazardous ingredients in pesticide products used in organic production. This report has outlined the history of "inerts" and issues associated with them and has suggested a path forward for completing the NOSB's recommended actions.

Appendices

EPA Lists 4A and 4B, as amended

Safer Chemical Ingredient List

U.S. Environmental Protection Agency

Office of Pesticide Programs

List of Inert Pesticide Ingredients

List 4A - Minimal Risk Inert Ingredients - By Chemical Name

Updated August 2004

Inert Ingredients Ordered Alphabetically by Chemical Name - List 4A Updated August 2004

CAS	PREFIX	NAME	List No.
62-54-4		Acetic acid, calcium salt	4A
127-08-2		Acetic acid, potassium salt	4A
127-09-3		Acetic acid, sodium salt	4A
8007-69-0		Almond oil	4A
1327-43-1		Aluminum magnesium silicate	4A
1327-44-2		Aluminum potassium silicate	4A
		Animal feed items conforming to 40 CFR 180.950(b)	4A
		Animal glue	4A
50-81-7	L-	Ascorbic acid	4A
137-66-6		Ascorbyl palmitate	4A
8012-89-3		Beeswax	4A
1302-78-9		Bentonite	4A
85409-30-5		Bentonite, sodian	4A
1863-63-4		Benzoic acid, ammonium salt	4A
2090-05-3		Benzoic acid, calcium salt	4A
553-70-8		Benzoic acid, magnesium salt	4A
582-25-2		Benzoic acid, potassium salt	4A
532-32-1		Benzoic acid, sodium salt	4A
68409-75-6		Bone meal	4A
123-95-5		Butyl stearate	4A
5743-26-0		Calcium acetate, monohydrate	4A
471-34-1		Calcium carbonate	4A
6107-56-8		Calcium octanoate	4A
12168-85-3		Calcium oxide silicate (Ca3O(SiO4))	4A
10101-41-4		Calcium sulfate, dihydrate	4A
10034-76-1		Calcium sulfate, hemihydrate	4A
68476-78-8		Cane syrup	4A
120962-03-0		Canola oil	4A
7440-44-0		Carbon	4A
124-38-9		Carbon dioxide	4A
13397-26-7		Carbonic acid, calcium salt (calcite)	4A
546-93-0		Carbonic acid, magnesium salt (1:1)	4A
298-14-6		Carbonic acid, monopotassium salt	4A
144-55-8		Carbonic acid, monosodium salt	4A
		Cardboard	4A
8015-86-9		Carnauba wax	4A
9000-40-2		Carob gum (locust bean gum)	4A
9000-07-1		Carrageenan	4A
8001-79-4		Castor oil	4A
8001-78-3		Castor oil, hydrogenated	4A
		Cat food	4A
9004-34-6		Cellulose	4A
9004-35-7		Cellulose acetate	4A
9004-32-4		Cellulose carboxy methyl ether, sodium salt	4A
9004-62-0		Cellulose, 2-hydroxyethyl ether	4A
9004-64-2		Cellulose, 2-hydroxypropyl ether	4A
9004-65-3		Cellulose, 2-hydroxypropyl methyl ester	4A
9000-11-7		Cellulose, carboxymethyl ether	4A
9004-67-5		Cellulose, methyl ether	4A

	Cellulose, mixture with cellulose carboxymethyl ether,	
51395-75-6	sodium salt	4A
65996-61-4	Cellulose, pulp	4A
68442-85-3	Cellulose, regenerated	4A
77-92-9	Citric acid	4A
813-94-5	Citric acid, calcium salt (2:3)	4A
7693-13-2	Citric acid, calcium salt (2:3)	4A
3609-96-9	Citric acid, dipotassium salt	4A
144-33-2	Citric acid, disodium salt	4A
5949-29-1	Citric acid, monohydrate	4A
866-83-1	Citric acid, monopotassium salt	4A
18996-35-5	Citric acid, monosodium salt	4A
7778-49-6	Citric acid, potassium salt	4A
994-36-5	Citric acid, sodium salt	4A
866-84-2	Citric acid, tripotassium salt	4A
6100-05-6	Citric acid, tripotassium salt, monohydrate	4A
68-04-2	Citric acid, trisodium salt	4A
6132-04-3	Citric acid, trisodium salt, dihydrate	4A
6858-44-2	Citric acid, trisodium salt, pentahydrate	4A
68514-76-1	Citrus pulp, orange	4A
	Clam shells	4A
8002-31-1	Cocoa	4A
8001-31-8	Coconut oil	4A
68916-18-7	Coffee grounds	4A
	Commonly consumed food commodities conforming to 40 CFR 180.950(a)	4A
61789-98-8	Cork	4A
68525-86-0	Corn flour	4A
8001-30-7	Corn oil	4A
8029-43-4	Corn syrup	4A
68131-37-3	Corn syrup solids	4A
9005-25-8	Cornstarch	4A
	Cotton	4A
68424-10-2	Cottonseed meal	4A
8001-29-4	Cottonseed oil	4A
53988-07-1	Decanoic acid, diester with 1,2,3-propanetriol (9CI)	4A
26402-22-2	Decanoic acid, monoester with 1,2,3-propanetriol	4A
9004-53-9	Dextrins	4A
50-99-7	Dextrose	4A
61790-53-2	Diatomaceous earth (less than 1% crystalline silica)	4A
143-07-7	Dodecanoic acid	4A
142-18-7	Dodecanoic acid, 2,3-dihydroxypropyl ester	4A
27638-00-2	Dodecanoic acid, diester with 1,2,3-propanetriol (9CI)	4A
27215-38-9	Dodecanoic acid, monoester with 1,2,3-propanetriol (9CI)	4A
16389-88-1	Dolomite (CaMg(CO3)2)	4A
	Douglas fir bark	4A
	Edible fats and oils conforming to 40 CFR 180.950(c)	4A
	Egg shells	4A
68476-25-5	Feldspar group minerals	4A
8016-13-5	Fish oil	4A
8031-18-3	Fuller's earth	4A
110-17-8	Fumaric acid	4A

71010-52-1		Gellan gum (tolerance pending approval)	4A
68476-37-9		Glue (as depolymerized animal collagen)	4A
56-81-5		Glycerol (glycerin) 1,2,3 propanetriol	4A
7782-42-5		Graphite	4A
9000-30-0		Guar gum	4A
13397-24-5		Gypsum	4A
1317-60-8		Hematite (Fe2O3)	4A
57-10-3		Hexadecanoic acid	4A
26657-95-4		Hexadecanoic acid, diester with 1,2,3-propanetriol (9CI)	4A
26657-96-5		Hexadecanoic acid, monoester with 1,2,3-propanetriol	4A
8028-66-8		Honey	4A
68514-28-3		Humic acid, potassium salt	4A
68131-04-4		Humic acid, sodium salt	4A
68334-00-9		Hydrogenated cottonseed oil	4A
68514-74-9		Hydrogenated palm oils	4A
84681-71-0		Hydrogenated rapeseed oil	4A
8016-70-4		Hydrogenated soybean oil	4A
8013-17-0		Invert sugar	4A
12068-86-9		Iron magnesium oxide (Fe2MgO4)	4A
1317-61-9		Iron oxide (Fe3O4)	4A
1309-37-1		Iron oxide (Fe2O3)	4A
12259-21-1		Iron oxide (Fe2O3), hydrate	4A
1345-25-1		Iron oxide (FeO)	4A
110-27-0		Isopropyl myristate	4A
1332-58-7		Kaolin	4A
97-64-3		Lactic acid, ethyl ester	4A
138-22-7		Lactic acid, n-butyl ester	4A
63-42-3	D-(+)-	Lactose	4A
64044-51-5		Lactose, monohydrate	4A
8006-54-0		Lanolin	4A
61789-99-9		Lard	4A
8002-43-5		Lecithins	4A
8030-76-0		Lecithins, soya	4A
68916-91-6		Licorice extract	4A
12001-27-3		Lime (chemical) dolomitic	4A
1317-65-3		Limestone	4A
8001-26-1		Linseed oil (unboiled)	4A
1309-48-4		Magnesium oxide	4A
12207-97-5		Magnesium oxide silicate (Mg3O(Si2O5)2), monohydrate	4A
1343-90-4		Magnesium silicate, hydrate	4A
14987-04-3		Magnesium silicon oxide (Mg2Si3O8)	4A
10034-99-8		Magnesium sulfate heptahydrate	4A
6915-15-7		Malic acid	4A
8002-48-0		Malt extract	4A
9050-36-6		Maltodextrin	4A
68131-12-4		Meat meal	4A
12003-38-2		Mica	4A
12001-26-2		Mica group minerals	4A
8052-35-5		Molasses	4A
1318-93-0		Montmorillonite	4A

1327-36-2	Mullite	4A
37244-96-5	Nepheline syenite	4A
7727-37-9	Nitrogen	4A
134134-87-5	Oat protein	4A
25496-72-4	9- Octadecanoic acid (9Z)-,monoester with 1,2,3 propanetriol	4A
1002-89-7	Octadecanoic acid, ammonium salt	4A
1592-23-0	Octadecanoic acid, calcium salt	4A
557-04-0	Octadecanoic acid, magnesium salt	4A
12694-22-3	9- Octadecanoic acid, monoester with oxybis (propanediol)	4A
593-29-3	Octadecanoic acid, potassium salt	4A
822-16-2	Octadecanoic acid, sodium salt	4A
557-05-1	Octadecanoic acid, zinc salt	4A
111-03-5	9- Octadecenenoic acid (Z)-, 2,3-dihydroxypropyl ester (9CI)	4A
143-18-0	9- Octadecenoic acid (9Z)-, potassium salt	4A
143-19-1	9- Octadecenoic acid (9Z)-, sodium salt	4A
7492-30-0	9- Octadecenoic acid, 12-hydroxy-, monopotassium salt, (9Z,	4A
5323-95-5	9- Octadecenoic acid, 12-hydroxy-, monosodium salt, (9Z, 12R	4A
49553-76-6	9- Octadecenoic acid, ester with 1,2,3-propanetriol	4A
71012-10-7	9- Octadecenoic acid, monoester with tetraglycerol	4A
36354-80-0	Octanoic acid, diester iwht 1,2,3-propanetriol (9CI)	4A
26402-26-6	Octanoic acid, monoester with 1,2,3-propanetriol	4A
1984-06-1	Octanoic acid, sodium salt	4A
1323-83-7	Octodecanoic acid, diester with 1,2,3-propanetriol (9CI)	4A
11099-07-3	Octodecanoic acid, ester with 1,2,3-propanetriol (9CI)	4A
31566-31-1	Octodecanoic acid, monoester with 1,2,3-propanetriol (9CI)	4A
25637-84-7	9- Octodecenoic acid (9Z)-, diester with 1,2,3-propanetriol (9C	4A
68917-73-7	Oils, wheat	4A
112-80-1	Oleic acid	4A
8001-25-0	Olive oil	4A
	Oyster shells	4A
8002-75-3	Palm oil	4A
	Paper	4A
68991-42-4	Paprika	4A
8002-74-2	Paraffin wax	4A
8002-03-7	Peanut oil	4A
	Peat moss	4A
130885-09-5	Perlite	4A
93763-70-3	Perlite, expanded	4A
26499-65-0	Plaster of Paris	4A
9002-88-4	Polyethylene	4A
7646-93-7	Potassium bisulfate	4A
7447-40-7	Potassium chloride	4A
764-71-6	Potassium octoate	4A
24634-61-5	Potassium sorbate	4A
9007-48-1	1,2,3- Propanetriol, homopolymer (9Z)-9-octadecenoate	4A
9009-32-9	1,2,3- Propanetriol, homopolymer, octadecanoate	4A
1332-09-8	Pumice	4A
68553-81-1	Rice bran oil	4A
9006-04-6	Rubber	4A

8001-23-8	Safflower oil	4A
	Sawdust	4A
8008-74-0	Sesame seed oil	4A
63231-67-4	Silica Gel	4A
112926-00-8	Silica gel, precipitated, crystalline-free	4A
112945-52-5	Silica, amorphous, fumed (crystalline free)	4A
7699-41-4	Silica, amorphous, precipitated and gel	4A
10279-57-9	Silica, hydrate	4A
60676-86-0	Silica, vitreous	4A
13776-74-4	Silicic acid (H2SiO3), magnesium salt (1:1)	4A
12003-51-9	Silicic acid (H4SiO4), aluminum sodium salt (1:1:1)	4A
12736-96-8	Silicic acid, aluminum potassium sodium salt	4A
1335-30-4	Silicic acid, aluminum salt	4A
1344-00-9	Silicic acid, aluminum sodium salt	4A
1344-95-2	Silicic acid, calcium salt	4A
1343-88-0	Silicic acid, magnesium salt	4A
7631-86-9	Silicon dioxide (crystalline-free forms only)	4A
1393-03-9	Soapbark (Quillaja saponin)	4A
9005-38-3	Sodium alginate	4A
7647-14-5	Sodium chloride	4A
50-70-4	Sorbitol	4A
8001-22-7	Soybean oil	4A
8002-24-2	Sperm oil	4A
57-11-4	Stearic acid	4A
57-50-1	Sugar	4A
7704-34-9	Sulfur	4A
7778-18-9	Sulfuric acid, calcium salt (1:1)	4A
7778-80-5	Sulfuric acid, dipotassium salt	4A
7757-82-6	Sulfuric acid, disodium salt	4A
7727-73-3	Sulfuric acid, disodium salt, decahydrate	4A
7487-88-9	Sulfuric acid, magnesium salt (1:1)	4A
68937-99-5	Sunflower seeds	4A
61789-97-7	Tallow	4A
544-63-8	Tetradecanoic acid	4A
589-68-4	Tetradecanoic acid, 2,3-dihydroxypropyl ester	4A
53563-63-6	Tetradecanoic acid, diester with 1,2,3-propanetriol (9CI)	4A
27214-38-6	Tetradecanoic acid, monoester with 1,2,3-propanetriol (9CI	4A
13429-27-1	Tetradecanoic acid, potassium salt	4A
57-13-6	Urea	4A
121-33-5	Vanillin	4A
1318-00-9	Vermiculite	4A
	Vinegar (maximum of 8% acetic acid in solution)	4A
1406-18-4	Vitamin E	4A
7732-18-5	Water	4A
8006-95-9	Wheat germ oil	4A
8042-47-5	White mineral oil (petroleum)	4A
68917-75-9	Wintergreen oil	4A
13983-17-0	Wollastonite (Ca(SiO3))	4A
11138-66-2	Xanthan gum	4A
68876-77-7	Yeast	4A

1318-02-1	Zeolites (excluding erionite (CAS Reg. No. 66733-21-9))	4A
68989-22-0	Zeolites, NaA	4A
12063-19-3	Zinc iron oxide	4A
1314-13-2	Zinc oxide	4A

U.S. Environmental Protection Agency

Office of Pesticide Programs

List of Inert Pesticide Ingredients

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. - By Chemical Name

Updated August 2004

Inert Ingredients Ordered Alphabetically by Chemical Name - List 4B Updated August 2004

CAS	PREFIX	NAME	
64-19-7		Acetic acid	4B
26337-35-9		Acetic acid ethenyl ester, polymer with carbon monoxide and ethene	4B
137091-12-4		Acetic acid ethenyl ester, polymer with ethanol and alpha-2-propenyl-omega-hydroxypoly(oxy-1,2-ethandiyl)	4B
99607-70-2		Acetic acid, [(5-chloro-8-quinolinyl)oxy]-, 1-methylhexyl ester (9CI)	4B
631-61-8		Acetic acid, ammonium salt	4B
108419-34-7		Acetic acid, C9-11-branched alkyl esters, C10-rich	4B
108-24-7		Acetic anhydride	4B
98-86-2		Acetophenone	4B
77-90-7		Acetyl tributyl citrate	4B
91994-94-4		Acetylated lanolin alcohol	4B
9003-06-9		Acrylamide - acrylic acid resin	4B
130353-60-5		Acrylic acid - divinyl benzene copolymer	4B
25987-66-0		Acrylic acid butyl ester, polymer with methacrylic acid, methyl methacrylate and styrene	4B
24968-79-4		Acrylic acid methyl ester, polymer with acrylonitrile	4B
27012-62-0		Acrylic acid methyl ester, polymer with acrylonitrile and 1,3-butadiene	4B
9003-01-4		Acrylic acid polymer	4B
9003-04-7		Acrylic acid polymer, sodium salt	4B
151006-66-5		Acrylic acid terpolymer, partial sodium salt	4B
25750-84-9		Acrylic acid, butyl ester, polymer with ethylene	4B
25119-83-9		Acrylic acid, copolymer with butyl acrylate	4B
25987-30-8		Acrylic acid, polymer with acrylamide, sodium salt	4B
26604-01-3		Acrylic acid, polymer with acrylonitrile,ethyl acrylate and N-(hydroxymethyl)acrylamide	4B
25135-39-1		Acrylic acid, polymer with ethyl acrylate and methylmethacrylate	4B
89678-90-0		Acrylic acid, styrene, .alpha.-methyl styrene copolymer, ammonium salt	4B
52831-04-6		Acrylic acid-alpha-methylstyrene-styrene copolymer	4B
97953-25-8		Acrylic acid-sodium acrylate-sodium-2-methylpropanesulfonate copolymer	4B
27756-15-6		Acrylic acid-stearyl methacrylate copolymer	4B
9003-18-3		Acrylonitrile--butadiene copolymer	4B
137-08-6	beta-	Alanine,N-(2,4-dihydroxy-3,3-dimethyl-1-oxobutyl)-, calcium salt (2:1), (R)- (9CI) (CA IN	4B
68131-40-8		Alcohols, C11-15-secondary, ethoxylated	4B
68551-13-3		Alcohols, C12-15, ethoxylated propoxylated	4B
70632-06-3		Alcohols, C12-15, ethoxylated, carboxylated, sodium salts	4B
69227-21-0		Alcohols, C12-18, ethoxylated propoxylated	4B
68526-94-3		Alcohols, C12-20, ethoxylated	4B
68920-66-1		Alcohols, C16-18 and C18-unsatd., ethoxylated	4B
68891-29-2		Alcohols, C8-10, ethoxylated, monoether with sulfuric acid, ammonium salt	4B
68920-69-4		Alcohols, C9-11, propoxylated	4B

Inert Ingredients Ordered Alphabetically by Chemical Name - List 4B Updated August 2004

154518-36-2		Alcohols, C9-11-iso-, C10-rich, ethoxylated propoxylated	4B
97043-91-9		Alcohols, C9-16, ethoxylated	4B
68527-08-2		Alkenes, C>10 .alpha.-, polymd.	4B
142-03-0		Aluminum acetate, basic	4B
7446-70-0		Aluminum chloride	4B
21645-51-2		Aluminum hydroxide	4B
6028-57-5		Aluminum octanoate	4B
1344-28-1		Aluminum oxide	4B
10043-01-3		Aluminum sulfate	4B
68425-44-5		Amides, coco, N-(hydroxyethyl), ethoxylated	4B
61791-26-2		Amines, tallow alkyl, ethoxylated	4B
7784-25-0		Ammonium alum	4B
7803-63-6		Ammonium bisulfate	4B
12124-97-9		Ammonium bromide	4B
12125-02-9		Ammonium chloride	4B
3012-65-5		Ammonium citrate, dibasic	4B
1336-21-6		Ammonium hydroxide	4B
6484-52-2		Ammonium nitrate	4B
7722-76-1		Ammonium phosphate (monobasic)	4B
68333-79-9		Ammonium polyphosphate	4B
7783-20-2		Ammonium sulfate	4B
147-81-9		Arabinose (8CI, 9CI) (CA INDEX NAME)	4B
84775-78-0		Ascophyllum nodosum, ext	4B
374602-90-1		Ashes (residues), sunflower seed hull	4B
12174-11-7		Attapulgite	4B
7727-43-7		Barium sulfate (1:1)	4B
8029-31-0		Beer	4B
69011-22-9		Benzene, diethenyl-, polymer with etenylbenzene and ethenylethylbenzene, sulfonated, sodium salts	4B
68890-80-2		Benzene, ethenyl-, polymer with 2,5-furandione, 2-butoxyethyl ester, ammonium salt	4B
68648-89-5		Benzene, ethenyl-, polymer with 2-methyl-1,3-butadiene, hydrogenated	4B
65-85-0		Benzoic acid	4B
10191-41-0	2H-1-	Benzopyran-6-ol,3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-	4B
60864-33-7		Benzyl ether of 1,1,3,3-tetramethylbutylphenoxypolyethoxy ethanol	4B
61791-31-9	N,N-	Bis(2-hydroxyethyl)(coconut oil alkyl)amine	4B
87823-33-4	3,5-	Bis(6-isocyanatohexyl)-2H-1,3,5-oxadiazine-2,4,6-(3H,5H)-trione, polymer with diethylenetriamine	4B
1318-23-6		Boehmite (Al(OH)O)	4B
9003-55-8		Butadiene-styrene copolymer	4B
106-97-8	n-	Butane	4B
110-15-6		Butanedioic acid	4B
106-65-0		Butanedioic acid, dimethyl ester	4B
9018-04-6	1,4-	Butanediol, copolymer with 4,4'-diphenylmethane diisocyanate and polytetramethylene glycol	4B
71-36-3	1-	Butanol	4B

689-82-7		2- Butenedioic acid (Z)-, monopotassium salt	4B
32649-30-2		2- Butenedioic acid (Z)-, polymer with ethenol, sodium salt	4B
139871-83-3		Butenedioic acid (Z)_, polymer with ethenol and ethenyl 2- acetate, sodium salt	4B
70549-17-6		Butyl acrylate-2-ethylhexyl acrylate-2-hydroxyethyl acrylate-styrene copolymer	4B
63744-68-3		Butyl acrylate-ethyl acrylate-methacrylic acid-methyl methacrylate-styrene copolymer	4B
65405-40-5		Butyl acrylate-vinyl acetate-acrylic acid copolymer	4B
26160-96-3		Butylated polyvinylpyrrolidone	4B
50769-39-6		Butylpolyethoxyethanol esters of phosphoric acid	4B
96-48-0	gamma-	Butyrolactone	4B
1328-53-6		C.I. Pigment Green 7	4B
10043-52-4		Calcium chloride	4B
1305-62-0		Calcium hydroxide	4B
1305-78-8		Calcium oxide	4B
10103-46-5		Calcium phosphate	4B
4075-81-4		Calcium propionate	4B
68187-71-3		Calcium salts of tall-oil fatty acids	4B
15974-07-9		Calcium zinc phosphate (CaZn2(PO4)2)	4B
8028-89-5		Caramel	4B
10361-29-2		Carbonic acid, ammonium salt	4B
506-87-6		Carbonic acid, diammonium salt	4B
584-08-7		Carbonic acid, dipotassium salt	4B
497-19-8		Carbonic acid, disodium salt	4B
598-62-9		Carbonic acid, manganese(2+) salt (1:1)	4B
1066-33-7		Carbonic acid, monoammonium	4B
9000-71-9		Caseins	4B
9005-42-9		Caseins, ammonium complexes	4B
9005-46-3		Caseins, sodium complexes	4B
68071-54-5		Castor oil, dehydrated, polymer with p-tert-butylbenzoic acid, glycerol and phthalic anhydride	4B
61791-12-6		Castor oil, ethoxylated	4B
125303-89-1		Castor oil, hydrogenated, polymer with adipic acid, ethylenediamine and 12-hydroxyoctadecanoic acid	4B
71820-36-5		Castor oil, maleic anhydride, and polyethylene glycol copolymer	4B
68187-84-8		Castor oil, oxidized	4B
68187-76-8		Castor oil, sulfated, sodium salt	4B
8023-84-5		Catnip	4B
65997-15-1		Cement, portland, chemicals	4B
36653-82-4		Cetyl alcohol	4B
29710-31-4		Cetyl octanoate	4B
8021-99-6		Charcoal, bone	4B
97765-70-3		Cheese	4B
9012-76-4		Chitosan	4B
64754-90-1		Chlorinated polyethylene	4B

	(3.beta.)		
57-88-5	-	Cholest-5-en-3-ol	4B
67-48-1		Choline chloride	4B
70131-50-9		Clay	4B
8001-69-2		Cod liver oil	4B
20427-59-2		Copper (II) C2449hydroxide	4B
147-14-8		Copper phthalocyanine blue	4B
66071-94-1		Corn, steep liquor	4B
68917-18-0		Cornmint oil	4B
63393-89-5		Coumarone - indene resin	4B
14464-46-1		Cristobalite	4B
74811-65-7		Croscarmellose sodium	4B
		Crustacea (raw and processed forms)	4B
527-09-3		Cupric gluconate	4B
10016-20-3	alpha-	Cyclodextrin	4B
128446-33-3	1-alpha-	Cyclodextrin, 2-hydroxypropyl ethers	4B
111-20-6		Decanedioic acid	4B
334-48-5		Decanoic acid	4B
112-30-1	1-	Decanol	4B
21662-09-9	4-	Decenal, (4Z)-	4B
41444-55-7		Decyl glucoside	4B
37764-25-3	N,N-	Diallyl-2,3-dichloroacetamide	4B
7783-28-0		Diammonium phosphate	4B
121776-33-8	3-(	Dichloroacetyl)-5-(2-furanyl)-2,2-dimethyloxazolidine	4B
135590-91-9		Diethyl-1-(2,4-dichlorophenyl)-5-methyl-2-pyrazolin-3,5-dicarboxylate	4B
115-10-6		Dimethyl ether	4B
67762-90-7		Dimethyl silicone polymer with silica	4B
39464-64-7		Dinonylphenol, ethoxylated, phosphated	4B
20727-33-7		Dioctyl* sodium sulfosuccinate (* octyl is 1-methylheptyl)	4B
188027-78-3	5H-1,3-	Dioxolo[4,5-f]benzimidazole, 6-chloro-5-[(3,5-dimethyl-4-isoxazolyl)sulfonyl]-2,2-difluoro	4B
7722-88-5		Diphosphoric acid, tetrasodium salt	4B
7558-79-4		Disodium phosphate	4B
9004-82-4		Dodecanol, ethoxylated, monoether with sulfuric acid, sodium salt	4B
25719-52-2		Dodecyl 2-methylacrylate polymer	4B
26183-44-8		Dodecyl alcohol, ethoxylated, monoether with sulfuric acid	4B
151-21-3		Dodecyl sulfate, sodium salt	4B
		Dried crickets	4B
		Dried mealworms	4B
9006-50-2		Egg white	4B
		Eggs (raw and processed forms)	4B

36347-52-1	Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with methyl 2-methyl-2-propenoate	4B
64-17-5	Ethanol	4B
9003-09-2	Ethene, methoxy-, homopolymer	4B
91-53-2	Ethoxyquin	4B
141-78-6	Ethyl acetate	4B
25212-88-8	Ethyl acrylate-methacrylic acid copolymer	4B
73637-19-1	Ethyldiaminetetraacetic acid (EDTA) disodium copper (II) sa	4B
73637-20-4	Ethyldiaminetetraacetic acid (EDTA) disodium manganese	4B
73513-47-0	Ethyldiaminetetraacetic acid (EDTA) disodium zinc salt, dih	4B
15708-41-5	Ethyldiaminetetraacetic acid (EDTA) iron(III) sodium salt	4B
17421-79-3	Ethyldiaminetetraacetic acid (EDTA) monosodium salt	4B
65501-24-8	Ethyldiaminetetraacetic acid (EDTA) tripotassium salt, dihyd	4B
26316-40-5	Ethylene oxide-propylene oxide copolymer ethylenediamine ether	4B
24937-78-8	Ethylene, polymer with vinyl acetate	4B
139-33-3	Ethylenediaminetetraacetatic acid (EDTA), disodium salt	4B
150-38-9	Ethylenediaminetetraacetatic acid (EDTA), trisodium salt	4B
5964-35-2	Ethylenediaminetetraacetec acid (EDTA), tetrapotassium sa	4B
60-00-4	Ethylenediaminetetraacetic acid (EDTA)	4B
61916-40-3	Ethylenediaminetetraacetic acid (EDTA) disodium copper(II	4B
14729-89-6	Ethylenediaminetetraacetic acid (EDTA) disodium iron(II) sa	4B
15375-84-5	Ethylenediaminetetraacetic acid (EDTA) disodium mangane	4B
62-33-9	Ethylenediaminetetraacetic acid (EDTA), calcium disodium	4B
12276-01-6	Ethylenediaminetetraacetic acid (EDTA), copper (II) salt	4B
20824-56-0	Ethylenediaminetetraacetic acid (EDTA), diammonium salt	4B
14025-15-1	Ethylenediaminetetraacetic acid (EDTA), disodium copper(I	4B
6381-92-6	Ethylenediaminetetraacetic acid (EDTA), disodium salt, dihy	4B
14025-21-9	Ethylenediaminetetraacetic acid (EDTA), disodium zinc salt	4B
7379-27-3	Ethylenediaminetetraacetic acid (EDTA), potassium salt	4B
7379-28-4	Ethylenediaminetetraacetic acid (EDTA), sodium salt	4B
64-02-8	Ethylenediaminetetraacetic acid (EDTA), tetrasodium salt	4B
67401-50-7	Ethylenediaminetetraacetic acid (EDTA), tetrasodium salt, t	4B
17572-97-3	Ethylenediaminetetraacetic acid (EDTA), tripotassium salt	4B
17099-81-9	Ethylenediaminetetraacteic acid (EDTA), iron(III) salt	4B
67762-38-3	Fatty acids, C16-18 & C18-unsatd., Me esters	4B
67701-08-0	Fatty acids, C16-18 and C18-unsatd	4B
162627-18-1	Fatty acids, C18-unsatd., trimers, reaction products with triethylenetetramine	4B
68525-90-6	Fatty acids, C8-18, esters with sorbitol, ethoxylated	4B
68553-02-6	Fatty acids, coco, esters with polyethylene glycol ether with glycerol (3:1)	4B
68154-33-6	Fatty acids, coco, esters with sorbitan, ethoxylated-	4B
68919-53-9	Fatty acids, soya, Me esters	4B
68424-50-0	Fatty acids, tall-oil, C12-15-alkyl esters, sulfated, sodium salts	4B
61790-90-7	Fatty acids, tall-oil, hexaester with sorbitol, ethoxylated	4B
68650-09-9	Fatty acids, tall-oil, mixed esters with glycerol and polyethylene glycol	4B

61790-92-9		Fatty acids, tall-oil, pentaester with sorbitol, ethoxylated	4B
67761-98-2		Fatty acids, tall-oil, polymer with ethylene glycol, pentaerythritol, and phthalic anhydride	4B
66070-75-5		Fatty acids, tall-oil, polymers with bisphenol A and epichlorohydrin	4B
68605-57-2		Fatty acids, tall-oil, polymers with bisphenol A, epichlorohydrin, rosin and tung oil	4B
68413-17-2		Fatty acids, tall-oil, polymers with isophthalic acid, pentaerythritol and walnut oil	4B
68038-31-3		Fatty acids, tall-oil, polymers with pentaerythritol, phthalic anhydride and rosin	4B
68648-20-4		Fatty acids, tall-oil, sesquiesters with sorbitol, ethoxylated	4B
61790-37-2		Fatty acids, tallow	4B
61790-38-3		Fatty acids, tallow, hydrogenated	4B
8005-44-5		Fatty alcohols	4B
860-22-0		FD&C Blue No. 2	4B
25956-17-6		FD&C Red No. 40	4B
7705-08-0		Ferric chloride	4B
10028-22-5		Ferric sulfate	4B
563-71-3		Ferrous carbonate	4B
5905-52-2		Ferrous lactate	4B
7720-78-7		Ferrous sulfate	4B
7782-63-0		Ferrous sulfate heptahydrate	4B
		Fish (raw and processed forms)	4B
97675-81-5		Fish meal	4B
59-30-3		Folic acid	4B
57-48-7	D-	Fructose	4B
68037-40-1	2,5-	Furandione, polymer with ethylbenzene, sulfonated, sodium salt (CA INDEX NAME)	4B
9000-70-8		Gelatin	4B
527-07-1		Gluconic acid, sodium salt	4B
4468-02-4	D-	Gluconic acid, zinc complex	4B
29836-26-8	(beta-D-	Glucoopyranoside, octyl	4B
29781-80-4	(alpha-D-	Glucopyranoside, octyl	4B
59947-99-8	beta-D-	Glucoside, decyl	4B
54549-23-4	D-	Glucoside, octyl	4B
100403-38-1		Glycerides, animal, reaction products with sucrose	4B
68424-61-3		Glycerides, C16-18 and C18-unsatd. mono- and di-	4B
68002-70-0		Glycerides, C16-22	4B
100403-39-2		Glycerides, palm-oil, reaction products with sucrose	4B
61789-14-8		Glycerides, tallow sesqui-, hydrogenated	4B

100403-40-5	Glycerides, tallow, reaction products with sucrose	4B
100403-41-6	Glycerides, vegetable-oil, reaction products with sucrose	4B
102-76-1	Glyceryl triacetate	4B
139-44-6	Glyceryl tris(12-hydroxystearate)	4B
19019-43-3	Glycine, N-(carboxymethyl)-N-[2-[(carboxymethyl)amino]ethyl]-, trisodium salt	4B
68411-97-2	Glycine, N-methyl-, N-coco acyl derivs. (CA INDEX NAME) (Pending)	4B
3624-77-9	Glycine, N-methyl-N-(1-oxo-9-octadecenyl)-, sodium salt (9CI) (CA INDEX NAME) (Pending)	4B
97-78-9	Glycine, N-methyl-N-(1-oxododecyl)-	4B
142-48-3	Glycine, N-methyl-N-(1-oxooctadecyl)-	4B
5136-55-0	Glycine, N-methyl-N-(1-oxooctadecyl)-, sodium salt	4B
52558-73-3	Glycine, N-methyl-N-(1-oxotetradecyl)-	4B
30364-51-3	Glycine, N-methyl-N-(1-oxotetradecyl)-, sodium salt	4B
26635-76-7	Glycols, plyethylene, mono(oleylamines)-ethyl ester	4B
	Ground grass seed	4B
9000-01-5	Gum Arabic	4B
12173-47-6	Hectorite	4B
7440-59-7	Helium	4B
111-70-6	1- Heptanol	4B
68511-11-5	Hexanedioic acid, polymer with 1,4-butanediol and 1,2-propanediol, didodecanoate	4B
125826-44-0	Hexanedioic acid, polymer with 2,2-dimethyl-1,3-propanediol, 1,6-hexanediol, hydrazine, 3-hydroxy-2-(hydroxymethyl)-2-methylpropanoic acid and 1,1'-methylenebis[4-isocyanatocyclohexane], compd. with N,N-diethylethanamine	4B
114133-44-7	Hexanedioic acid, polymer with N-(2-aminoethyl)-1,3-propanediamine, aziridine, (chloromethyl)oxirane, 1,2-ethanediamine, N,N''-1,2-ethanediylbis[1,3-propanediamine], formic acid and .alpha.-hydro.omega.-hydroxypoly(oxy-1,2-ethanediyl)	4B
111-27-3	1- Hexanol	4B
928-96-1	3- Hexen-1-ol, (Z)-	4B
25213-02-9	1- Hexene, polymer with ethene	4B
7647-01-0	Hydrogen chloride	4B
2809-21-4	1- Hydroxyethylidene-1,1-diphosphonic acid	4B
70142-34-6	12- Hydroxystearic acid-polyethylene glycol copolymer	4B

120-72-9	1H-	Indole	4B
7439-89-6		Iron (Fe)	4B
20344-49-4		Iron hydroxide oxide (Fe(OH)O)	4B
27458-93-1		Isooctadecanol	4B
70425-89-7		Isooctyl acrylate-stearyl methacrylate-acrylic acid copolymer	4B
163520-33-0	3-	Isoxazolecarboxylic acid, 4,5-dihydro-5,5-diphenyl-, ethyl ester	4B
50-21-5		Lactic acid	4B
814-80-2		Lactic acid, calcium salt (2:1)	4B
515-98-0		Lactic acid, monoammonium salt	4B
		Leaves, apple	4B
97676-23-8		Licorice extract (licorice and licorice derivates)	4B
8061-52-7		Lignosulfonic acid, calcium salt	4B
8061-51-6		Lignosulfonic acid, sodium salt	4B
5989-27-5	d-	Limonene	4B
8001-26-1		Linseed oil (boiled)	4B
67746-08-1		Linseed oil, polymd.	4B
66071-03-2		Linseed oil, polymd.,oxidized	4B
7786-30-3		Magnesium chloride	4B
1309-42-8		Magnesium hydroxide	4B
18917-93-6		Magnesium lactate	4B
10377-60-3		Magnesium nitrate	4B
26099-09-2		Maleic acid homopolymer	4B
25119-68-0		Maleic acid monobutyl ester-vinyl methyl ether copolymer	4B
25087-06-3		Maleic acid monoethyl ester-vinyl methyl ether copolymer	4B
31307-95-6		Maleic acid monoisopropyl ester-vinyl methyl ether copolymer	4B
9011-16-9		Maleic anhydride - methylvinyl ether copolymer	4B
37199-81-8		Maleic anhydride, polymer with 2,4,4-trimethylpentene, sodium salt	4B
25266-02-8		Maleic anhydride-1-octadecene copolymer	4B
60092-15-1		Maleic anhydride-methylstyrene copolymer, sodium salt	4B
7785-87-7		Manganese sulfate	4B
1344-43-0		Manganous oxide	4B
66402-68-4		Metakaolin	4B
100934-04-1		Methacrylic acid-methyl methacrylate-polyethylene glycol methyl ether methacrylate copolymer	4B
63-68-3	L-	Methionine	4B
103-26-4		Methyl cinnamate	4B
61788-60-1		Methyl esters of cottonseed oil	4B
119724-54-8		Methyl methacrylate-methacrylic acid-monomethoxypolyethylene glycol methacrylate copolymer	4B
112-62-9		Methyl oleate	4B
99-76-3		Methyl p-hydroxybenzoate	4B
124-10-7		Methyl tetradecanoate	4B

25153-40-6	Methyl vinyl ether-maleic acid copolymer	4B
62386-95-2	Methyl vinyl ether-maleic acid copolymer calcium sodium salt	4B
	Milk (raw and processed forms)	4B
68514-61-4	Milk, hydrolyzed	4B
9084-06-4	Naphthalenesulfonic acid, polymer with formaldehyde, sodium salt	4B
58846-77-8	N-Decyl glucoside	4B
7697-37-2	Nitric acid	4B
	Nitrogen fixing bacteria	4B
26027-38-3	p- Nonylphenol, ethoxylated	4B
9081-17-8	Nonylphenol, ethoxylated, monoether with sulfuric acid	4B
9014-90-8	Nonylphenol, ethoxylated, monoether with sulfuric acid, sodium salt	4B
57451-03-3	Nonylphenol, ethoxylated, monoether with sulfuric acid, triethanolamine salt	4B
51609-41-7	4- Nonylphenol, ethoxylated, phosphate ester	4B
51811-79-1	Nonylphenol, ethoxylated, phosphate ester	4B
37340-60-6	Nonylphenol, ethoxylated, phosphate ester, sodium salt	4B
58128-22-6	Octadecanoic acid, 12-hydroxy-, homopolymer, octadecanoate	4B
637-12-7	Octadecanoic acid, aluminum salt	4B
143-28-2	9- Octadecen- 1 -ol, (9Z)-	4B
544-60-5	9- Octadecenoic acid (9Z)-, ammonium salt	4B
124-07-2	Octanoic acid	4B
41444-50-2	Octyl glucoside	4B
31800-88-1	Octyloxypoly(ethyleneoxy)ethyl phosphate	4B
72869-69-3	Oils, apricot	4B
8015-73-4	Oils, basil	4B
8021-28-1	Oils, Fir	4B
8000-46-2	Oils, geranium	4B
8007-08-7	Oils, ginger	4B
8016-20-4	Oils, grapefruit	4B
68153-10-6	Oils, lard, sulfated, sodium salts,	4B
8022-15-9	Oils, lavandin	4B
128497-20-1	Oils, Macadamia	4B
68201-51-4	Oils, menhaden, oxidized	4B
9000-50-4	Oils, oakmoss-resinoid (CA INDEX NAME)	4B
68514-75-0	Oils, orange-juice	4B
132538-94-4	Oils, orange-juice, citrus sinensis	4B
8014-19-5	Oils, palmarosa	4B
8000-25-7	Oils, rosemary	4B
8022-56-8	Oils, sage	4B
8016-85-1	Oils, tangerine	4B
8016-96-4	Oils, vetiver	4B
8002-72-0	Onions, oil	4B
8008-57-9	Orange oil	4B
97766-30-8	Orange, sweet, valencia, ext.	4B

71526-07-3	1-	Oxa-4-azaspiro[4.5]decane, 4-(dichloroacetyl)-	4B
68441-17-8		Oxidized polyethylene	4B
61725-89-1		Oxirane methyl-, polymer with oxirane, tridecyl ether	4B
39362-51-1		Oxirane, methyl-, polymer with oxirane, acetate	4B
9038-29-3		Oxirane, methyl-, polymer with oxirane, decyl ether	4B
68585-15-9		Oxirane, methyl, polymer with oxirane, mono C6-C10 alkyl ethers, phosphates	4B
85637-75-8		Oxirane, methyl-, polymer with oxirane, mono[2-(2-butoxyethoxy) ethyl] ether	4B
134180-76-0		Oxirane, methyl-, polymer with oxirane, mono[3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]disiloxanyl]propyl] ether	4B
9041-33-2		Oxirane, methyl-, polymer with oxirane, mono-2-propenyl ether	4B
56090-69-8		Oxirane, methyl-, polymer with oxirane, monoacetate, 2-propenyl ether	4B
61827-84-7		Oxirane, methyl-, polymer with oxirane, octyl ether	4B
7782-44-7		Oxygen	4B
68476-82-4		Peanut meal	4B
		Peanut shells	4B
		Peanuts (raw and processed forms)	4B
		Pecan shell flour	4B
9000-69-5		Pectin	4B
78-23-9		Pentaerythritol monostearate	4B
115-83-3		Pentaerythritol tetrastearate	4B
8009-03-8		Petrolatum	4B
7664-38-2		Phosphoric acid	4B
7757-93-9		Phosphoric acid, calcium salt (1:1)	4B
7758-23-8		Phosphoric acid, calcium salt (2:1)	4B
7757-86-0		Phosphoric acid, magnesium salt (1:1)	4B
13092-66-5		Phosphoric acid, magnesium salt (2:1)	4B
7757-87-1		Phosphoric acid, magnesium salt (2:3)	4B
7778-53-2		Phosphoric acid, tripotassium salt	4B
7779-90-0		Phosphoric acid, zinc salt (2:3)	4B
8002-09-3		Pine oil	4B
80-56-8	alpha-	Pinene	4B
25719-60-2	beta-	Pinene homopolymer	4B
125997-17-3		Poly(oxy-1,2-ethandiyl),.alpha.-acetyl-.omega.-[3-{1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]disiloxanyl]propoxy)-	4B
68908-64-5		Poly(oxy-1,2-ethanediyl), .alpha.-hydro-. omega.-hydroxy-, mono-C10-12-alkyl ethers, phosphates	4B
68601-19-5		Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.'-[[methyl[3-(tridecyloxy)propyl]imino]di-2,1-ethanediyl	4B
73050-08-5		Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.'-phosphinicobis[.omega.-hydroxy-, di-C13-15-alkyl ethers, sodium salts	4B

67674-67-3	Poly(oxy-1,2-ethanediyl), .alpha.-3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]disiloxanyl]propyl]-omega.-hydroxy-	4B
143819-63-0	Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, monoether with (hydroxymethyl)decane	4B
119432-41-6	Poly(oxy-1,2-ethanediyl), .alpha.-sulfo-.omega.-[tris(1-phenylethyl)phenoxy]- ammonium salt	4B
59800-21-4	Poly(oxy-1,2-ethanediyl), alpha-hydro-omega-hydroxy-, ether with D-glucitol (6:1), (z)-9-octadecenoate	4B
68130-47-2	Poly(oxy-1,2-ethanediyl), alpha-hydro-omega-hydroxy-mono-C8-10-alkyl ethers, phosphates	4B
69364-63-2	Poly(oxy-1,2-ethanediyl), alpha-isohexadecyl-omega-hydroxy-	4B
73038-25-2	Poly(oxy-1,2-ethanediyl), alpha-isotridecyl-omega-hydroxy-, phosphate	4B
27252-80-8	Poly(oxy-1,2-ethanediyl), alpha-methyl-omega-(2-propenyloxy)- (CA INDEX NAME)	4B
27306-78-1	Poly(oxy-1,2-ethanediyl), alpha-methyl-omega-[3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]disiloxanyl]propoxy]-(2-propenyloxy)-	4B
73050-07-4	Poly(oxy-1,2-ethanediyl),.alpha.-(butoxyhydroxyphosphinyl)-.omega.-hydroxy-,C13-15-alkyl ethers,sodium salts	4B
27274-31-3	Poly(oxy-1,2-ethanediyl),.alpha.-2-propenyl-.omega.-hydroxy-	4B
78330-24-2	Poly(oxy-1,2-ethanediyl),.alpha.-hydro-.omega.-hydroxy-, mono-C11-14-isoalkyl ethers, C13-rich, phosphates	4B
73050-09-6	Poly(oxy-1,2-ethanediyl),.alpha.-phosphono-.omega.-hydroxy-,C13-15-alkyl ethers, disodium salts	4B
127036-24-2	Poly(oxy-1,2-ethanediyl),.alpha.-undecyl-.omega.-hydroxy-, branched and linear	4B
25038-59-9	Poly(oxy-1,2-ethanediyloxycarbonyl-1,4-phenylenecarbonyl	4B
56388-96-6	Poly(oxyethylene)tridecylacetic acid	4B
102900-02-7	Poly(oxyethylene/oxypropylene) monoalkyl(C6-C10)ether sodium fumarate adduct	4B
63231-81-2	Poly(vinylpyrrolidone-1-hexadecene)	4B
27937-16-4	Poly[imino(1-oxo-1,12-dodecanediyl)]	4B
9064-13-5	Poly[oxy(methyl-1,2-ethanediyl)], alpha-(methylphenyl)-omega-hydroxy-	4B
74775-06-7	Poly[oxy(methyl-1,2-ethanediyl)],.alpha.-(1-oxopropyl)-.omega.-(tetradecyloxy)-	4B
176022-82-5	Poly[oxy(methyl-1,2-ethanediyl)],.alpha.-[2-[bis(2-hydroxyethyl)amino]propyl]-.omega.-hydroxy-, ether with.alpha.-hydro-.omega.-hydroxypoly(oxy-1,2-ethanediyl) (1:2), mono-C12-16-alkyl ethers	4B
9003-05-8	Polyacrylamide	4B
63428-83-1	Polyamide resins	4B
25322-68-3	Polyethylene glycol	4B

9014-85-1	Polyethylene glycol ether with 1,4-diisobutyl-1,4-dimethylbutynediol (2:1)	4B
41928-09-0	Polyethylene glycol ether with 2,2'-methylenebis(4-(tert-octyl)phenol) (2:1)	4B
60874-89-7	Polyethylene glycol ether with methylenebis(diamylphenol)	4B
55069-68-6	Polyethylene glycol hexaether with sorbitol, diester with dodecanoic and oleic acids	4B
99734-09-5	Polyethylene glycol mono(tristyrylphenyl)ether	4B
59139-23-0	Polyethylene glycol nonylphenyl ether phosphate ethanolamine salt	4B
67922-57-0	Polyethylene glycol nonylphenyl ether phosphate magnesium salt	4B
52503-15-8	Polyethylene glycol nonylphenyl ether phosphate potassium salt	4B
68650-28-2	Polyethylene glycol-polyisobutenyl anhydride-tall oil fatty acid copolymer	4B
132175-04-3	Polyethylene glycol-polyisobutenyl anhydride-tall oil fatty acid copolymer	4B
9003-68-3	Polyethylene terephthalate	4B
24938-04-3	Polyethylene terphthalate - polyethylene isophthalate film	4B
9038-95-3	Polyethylene-polypropylene glycol, monobutyl ether	4B
63705-03-3	Polyglycerol diisostearate	4B
66070-87-9	Polyglyceryl phthalate ester of coconut oil fatty acid	4B
	Polymer of n-butyl acrylate, methyl methacryalate, methacrylic acid and aminopropyl methacrylate	4B
30938-41-1	Polymer of vinyl acetate, n-butyl acrylate, vinyl chloride, and acrylic acid	4B
9003-49-0	Polymerized butyl acrylate	4B
9011-14-7	Polymethyl methacrylate	4B
9036-19-5	Polyoxyethylene (1,1,3,3-tetramethylbutyl)phenyl ether	4B
60828-78-6	Polyoxyethylene 2,6,8-trimethyl-4-nonyl ether	4B
9014-93-1	Polyoxyethylene dinonylpheno	4B
9005-07-6	Polyoxyethylene dioleate	4B
9005-08-7	Polyoxyethylene distearate	4B
26636-40-8	Polyoxyethylene docosyl ether	4B
9002-92-0	Polyoxyethylene dodecyl mono ether	4B
9014-92-0	Polyoxyethylene dodecylpheno	4B
8050-33-7	Polyoxyethylene ester of rosin	4B
51192-09-7	Polyoxyethylene glycerin monooleate	4B
9004-98-2	Polyoxyethylene mono(cis-9-octadecenyl) ether	4B
26183-52-8	Polyoxyethylene monodecyl ether	4B
26636-39-5	Polyoxyethylene monoeicosyl ether	4B
9004-95-9	Polyoxyethylene monohexadecyl ether	4B
9004-81-3	Polyoxyethylene monolaurate	4B
9005-00-9	Polyoxyethylene monooctadecyl ether	4B
9004-96-0	Polyoxyethylene monooleate	4B
9004-99-3	Polyoxyethylene monostearate	4B
27306-79-2	Polyoxyethylene monotetradecyl ether	4B
9016-45-9	Polyoxyethylene nonylpheno	4B
51617-79-9	Polyoxyethylene octadecylpheno	4B

37280-82-3	Polyoxyethylene polyoxypropylene phosphate	4B
9005-64-5	Polyoxyethylene sorbitan monolaurate	4B
9005-65-6	Polyoxyethylene sorbitan monooleate	4B
9005-66-7	Polyoxyethylene sorbitan monopalmitate	4B
9005-67-8	Polyoxyethylene sorbitan monostearate	4B
9005-70-3	Polyoxyethylene sorbitan trioleate	4B
9005-71-4	Polyoxyethylene sorbitan tristearate	4B
31307-92-3	Polyoxyethylene sorbitol	4B
57171-56-9	Polyoxyethylene sorbitol hexaoleate	4B
9011-29-4	Polyoxyethylene sorbitol hexastearate	4B
61824-34-8	Polyoxyethylene sorbitol pentaoleate	4B
63089-86-1	Polyoxyethylene sorbitol tetraoleate	4B
163436-84-8	Polyoxyethylene tristyrylphenol phosphate, potassium salt	4B
9003-11-6	Polyoxyethylene-polyoxypropylene copolymer	4B
37286-64-9	Polyoxypropylene monomethyl ether	4B
25231-21-4	Polyoxypropylene monostearyl ether	4B
68458-49-1	Polyphosphoric acids, esters with polyethylene glycol nonylphenyl ether	4B
9003-07-0	Polypropylene	4B
25322-69-4	Polypropylene glycol	4B
31394-71-5	Polypropylene glycol monooleate	4B
9003-53-6	Polystyrene resin	4B
53504-41-9	Polyurethane	4B
9003-20-7	Polyvinyl acetate	4B
9002-89-5	Polyvinyl alcohol	4B
9002-86-2	Polyvinyl chloride resin	4B
9003-39-8	Polyvinylpyrrolidone	4B
25086-89-9	Polyvinylpyrrolidone-vinyl acetate copolymer	4B
61789-30-8	Potassium coconut oil soap	4B
1310-58-3	Potassium hydroxide	4B
14977-37-8	Potassium magnesium sulfate (Mg2K2(SO4)3)	4B
7758-11-4	Potassium phosphate (dibasic)	4B
7778-77-0	Potassium phosphate, monobasic	4B
69669-25-6	Potassium salts of fatty acids (C12-C20)	4B
67701-09-1	Potassium salts of fatty acids (C8-18 and C18 unsatd.)	4B
59766-31-3	Potassium titanium oxide (K2Ti8O17)	4B
78266-09-8	Propanesulfonic acid, 2-hydroxy-3-(2-propenyloxy)-1- ,monosodium salt, polymer with 2-propenoic acid	4B
17217-76-4	Propanetricarboxylic acid, 2-hydroxy-, iron (3+) salt (1:1), 1,2,3- trihydrate	4B
74504-64-6	1,2,3- Propanetriol, homopolymer, dodecanoate	4B
79-09-4	Propanoic acid	4B
67-63-0	2- Propanol	4B
71-23-8	1- Propanol	4B
109961-42-4	Propenenitrile, polymer with 1,2,4-triethenylcyclohexane, 2- hydrolyzed	4B
9003-18-3	2- Propenenitrile, polymer with 1,3-butadiene	4B
9003-56-9	Propenenitrile, polymer with 1,3-butadiene and 2- ethenylbenzene	4B

24938-16-7	2-	Propenoic acid, 2-methyl-, butyl ester, polymer with 2-(dimethylamino)ethyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate	4B
63150-03-8	2-	Propenoic acid, 2-methyl-, dodecyl ester, polymer with eicosyl 2-methyl-2-propenoate, hexadecyl 2-methyl-2-propenoate, octadecyl 2-methyl-2-propenoate, pentadecyl 2-methyl-2-propenoate, tetradecyl 2-methyl-2-propenoate and tridecyl 2-methyl-2-propenoate	4B
71394-17-7	2-	Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate, ethenylbenzene, 2-ethylhexyl 2-propenoate and methyl 2--methyl-2-propenoate	4B
26873-77-8	2-	Propenoic acid, 2-methyl-, polymer with ethenylbenzene, 2-ethylhexyl 2-propenoate and 2-propene	4B
55989-05-4	2-	Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate and methyl 2-methyl-2-propenoate, ammonium salt	4B
41487-53-0	2-	Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate, sodium salt	4B
89511-79-5	2-	Propenoic acid, 2-methyl-.polymer with ethyl 2-propenoate and methyl 2-methyl-2-propenoate, sodium salt	4B
30795-23-4	2-	Propenoic acid, butyl ester, polymer with ethenylbenzene and 2-ethylhexyl 2-propenoate	4B
29437-34-1	2-	Propenoic acid, butyl ester, polymer with ethyl 2-propenoate and 2-propenenitrile	4B
25608-12-2	2-	Propenoic acid, homopolymer, potassium salt	4B
25085-39-6	2-	Propenoic acid, polymer with 1,3-butadiene and ethenylbenzene	4B
86864-96-2	2-	Propenoic acid, polymer with 2-hydroxypropyl 2-propenoate and sodium 2-propenoate	4B
114033-68-0	2-	Propenoic acid, polymer with 2-propanol, reaction products with sodium acrylate	4B
9033-79-8	2-	Propenoic acid, polymer with sodium 2-propenoate	4B
94-13-3		Propyl p-hydroxybenzoate	4B
57-55-6		Propylene glycol	4B
9005-37-2		Propylene glycol alginate	4B
58-08-2	1H-	Purine-2,6-dione, 3,7-dihydro-1,3,7-trimethyl-	4B
12269-78-2		Pyrophyllite	4B
28211-18-9	2-	Pyrrolidinone, 1-ethenyl-, polymer with 1-eicosene	4B
73891-99-3		Rape oil, Me ester	4B
8023-77-6		Resins, oleo-, capsicum	4B
81-88-9		Rhodamine B (conforming to 40 CFR 180.2020)	4B
68152-57-8		Rosin, fumarated, polymer with ethylene glycol and pentaerythritol (CA INDEX NAME)	4B
68333-69-7		Rosin, maleated, polymer with pentaerythritol	4B
		Sand	4B
		Seeds, lettuce	4B
68909-20-6		Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica	4B
68611-44-9		Silane, dichlorodimethyl-, reaction products with silica	4B

1343-98-2	Silicic acid	4B
13870-28-5	Silicic acid (H2Si2O5), disodium salt	4B
6834-92-0	Silicic acid (H2SiO3), disodium salt	4B
15593-82-5	Silicic acid (H6Si2O7), hexasodium salt	4B
10213-79-3	Silicic acid, disodium salt, pentahydrate	4B
1312-76-1	Silicic acid, potassium salt	4B
1344-09-8	Silicic acid, sodium salt	4B
63148-62-9	Silicones and siloxanes, dimethyl	4B
	Silkworm pupae	4B
117272-76-1	Siloxanes and silicones, 3-hydroxypropyl Me, ethers with polyethylene glycol mono-Me ether	4B
68554-64-3	Siloxanes and silicones, di-Me, 3-hydroxypropyl Me, ethers with polyethylene glycol mono-Me ether	4B
68938-54-5	Siloxanes and silicones, di-Me, 3-hydroxypropyl Me, ethers with polyethylene glycol mono-Me ether	4B
67762-87-2	Siloxanes and silicones, di-Me, 3-hydroxypropyl Me, ethers with polyethylene-polypropylene glycol	4B
68440-66-4	Siloxanes and silicones, di-Me, 3-hydroxypropyl Me, ethers with polypropylene glycol mono-Bu ethe	4B
68937-55-3	Siloxanes and silicones, di-Me, 3-hydroxypropyl Me, ethoxylated propoxylated	4B
68037-62-7	Siloxanes and silicones, di-Me, Me hydrogen,reaction products with polyethylene glycol monoacetate	4B
67762-96-3	Siloxanes and silicones, di-Me,hydroxy-terminated, ethers with polypropylene glycol mono-Bu ether	4B
67701-10-4	Soap: (Fatty acids, C8-18 and C18-unsatd., sodium salts)	4B
7758-16-9	Sodium acid pyrophosphate	4B
25085-02-3	Sodium acrylate, polymer with acrylamide	4B
1302-42-7	Sodium aluminate	4B
7785-88-8	Sodium aluminum phosphate	4B
134-03-2	Sodium ascorbate	4B
577-11-7	Sodium bis(2-ethylhexyl) sulfosuccinate	4B
7681-38-1	Sodium bisulfate	4B
7647-15-6	Sodium bromide	4B
126-96-5	Sodium diacetate	4B
7558-80-7	Sodium dihydrogen phosphate	4B
1639-66-3	Sodium dioctyl sulfosuccinate	4B
7681-49-4	Sodium fluoride	4B
10124-56-8	Sodium hexametaphosphate	4B
1310-73-2	Sodium hydroxide	4B
7681-53-0	Sodium hypophosphite	4B
7631-99-4	Sodium nitrate	4B
7632-05-5	Sodium phosphate	4B
137-40-6	Sodium propionate	4B
533-96-0	Sodium sesquicarbonate	4B
8052-48-0	Sodium tallow soap	4B
868-18-8	Sodium tartrate	4B
7772-98-7	Sodium thiosulfate	4B
10102-17-7	Sodium thiosulfate, pentahydrate	4B
54116-08-4	Sodium tridecylpoly(oxyethylene) sulfate	4B
7758-29-4	Sodium tripolyphosphate	4B

110-44-1	Sorbic acid	4B
26266-57-9	Sorbitan monohexadecanoate	4B
1338-41-6	Sorbitan monostearate	4B
68646-20-4	Sorbitol tall oil fatty acid sesquiester, ethoxylated	4B
68513-95-1	Soy flour	4B
68308-36-1	Soybean meal	4B
61791-23-9	Soybean oil, ethoxylated	4B
67762-09-8	Soybean oil, polymer with ethylene glycol, glycerol, pentaerythritol and phthalic anhydride	4B
68309-49-9	Soybean oil, polymer with isophthalic acid, linseed oil and trimethylolpropane	4B
66071-16-7	Soybean oil, polymer with maleic anhydride	4B
68131-29-3	Soybean oil, polymer with phthalic anhydride, trimellitic anhydride and trimethylolpropane	4B
	Soybeans (raw and processed forms)	4B
8008-79-5	Spearmint oil	4B
63798-35-6	Starch acetate adipate	4B
65996-63-6	Starch, acid-hydrolyzed	4B
9063-38-1	Starch, carboxymethyl ether, sodium salt	4B
9011-13-6	Styrene - maleic anhydride resin	4B
25085-34-1	Styrene acrylic acid copolymer	4B
68630-83-1	Styrene, polymer with methacrylic acid and polyethoxylated (Z)-2-butenedioic acid	4B
9003-70-7	Styrene-divinyl benzene copolymer resin matrix	4B
25750-06-5	Styrene-methyl methacrylate-2-ethylhexyl acrylate copolymer	4B
8002-33-3	Sulfated castor oil	4B
10025-67-9	Sulfur chloride	4B
	Sulfur Coated Urea	4B
7664-93-9	Sulfuric acid	4B
68919-54-0	Sunflower-oil fatty acids, Me ester	4B
8028-48-6	Sweet orange peel tincture	4B
14807-96-6	Talc	4B
8030-12-4	Tallow, hydrogenated	4B
104133-09-7	Tetraethoxysilane, polymer with hexamethyldisiloxane	4B
811-97-2	1,1,1,2- Tetrafluoroethane	4B
7320-34-5	Tetrapotassium pyrophosphate	4B
58-56-0	Thiamine mononitrate	4B
	Thumb tacks	4B
13463-67-7	Titanium dioxide	4B
	Tree nuts (raw and processed forms)	4B
68002-20-0	1,3,5- Triazine-2,4,6-triamine, polymer with formaldehyde, methylated	4B
7758-87-4	Tricalcium phosphate	4B
26915-70-8	Tridecanol, ethoxylated, phospate ester	4B
15468-32-3	Tridymite (SiO2)	4B
105362-40-1	Triethanolamine, compd. with poly(oxyethylene) tristyrylphenyl ether phosphate	4B
1317-95-9	Tripoli	4B
132580-45-1	Alpha-[2,4,6- Tris[1-(phenyl)ethyl}phenyl]-omega-hydroxypoly(oxyethylene)poly(oxypropylene) copolymer	4B

7601-54-9		Trisodium phosphate	4B
73-22-3	L-	Tryptophan	4B
9011-05-6		Urea-formaldehyde resin	4B
28430-58-2		Vinyl acetate, polymer with methyl acrylate and methyl methacrylate	4B
25067-01-0		Vinyl acetate, polymer with n-butyl acrylate	4B
25085-41-0		Vinyl acetate-butyl acrylate-acrylic acid terpolymer	4B
25213-24-5		Vinyl alcohol-vinyl acetate copolymer	4B
9003-22-9		Vinyl chloride - vinyl acetate copolymer	4B
25086-48-0		Vinyl chloride, vinyl acetate and vinyl alcohol copolymer	4B
28062-44-4		Vinyl pyrrolidone-acrylic acid copolymer	4B
30581-59-0		Vinyl pyrrolidone-dimethylaminoethylmethacrylate copolymer	4B
25086-29-7		Vinylpyrrolidinone-styrene polymer	4B
68-26-8		Vitamin A	4B
12001-76-2		Vitamin B complex	4B
68-19-9		Vitamin B12	4B
67-97-0		Vitamin D3	4B
		Wheat (raw and processed forms)	LISTNO
130498-22-5		Wheat flour	4B
68608-58-2		Whey	4B
		Wood flour	4B
58-86-6	D-	Xylose	4B
7440-66-6		Zinc (metallic)	4B
7779-88-6		Zinc nitrate	4B

Appendix 2: Safer Chemical Ingredient List[1]

SCIL Rating	CAS	Name
Antimicrobial Actives		
Green [Circle]	77-92-9	Citric acid, anhydrous
Green [Circle]	64-17-5	Ethanol
Green [Circle]	7722-84-1	Hydrogen peroxide
Green [Circle]	67-63-0	Isopropanol
Green [Circle]	79-33-4	L-Lactic acid
Green [Circle]	79-21-0	Peracetic acid
Green [Circle]	7681-38-1	Sodium bisulfate
Chelating Agent		
Half Green [Circle]	181828-06-8	2-Butenedioic acid (2Z)-, ammonium salt (1:?), homopolymer, hydrolyzed, sodium salts
Green [Circle]	164462-16-2	Alanine, N,N-bis(carboxymethyl)-, sodium salt (1:3)
Half Green [Circle]	144538-83-0	Aspartic acid, N-(1,2-dicarboxyethyl)-, tetrasodium salt
Green [Circle]	1456772-91-0	Butanedioic acid, 2-methylene-, polymer with 2-propenoic acid and sodium 2-methyl-2-[(1-oxo-2-propen-1-yl)amino]-1-propanesulfonate
Green [Circle]	77-92-9	Citric acid, anhydrous
Green [Circle]	526-95-4	D-Gluconic acid
Green [Circle]	17140-60-2	D-glycero-D-gulo-Heptonic acid, calcium salt (2:1)
Green [Circle]	13007-85-7	D-glycero-D-gulo-Heptonic acid, monosodium salt
Green [Circle]	3609-96-9	Dipotassium hydrogen citrate
Green [Circle]	79-33-4	L-Lactic acid
Green [Circle]	31138-65-5	Monosodium D-glucoheptonate
Half Green [Circle]	20846-91-7	N,N'-Ethylenediamine disuccinic acid
Green [Circle]	866-84-2	Potassium citrate, anhydrous
Green [Circle]	6100-05-6	Potassium citrate, monohydrate
Green [Circle]	68-04-2	Sodium citrate, anhydrous
Green [Circle]	6132-04-3	Sodium citrate, dihydrate
Half Green [Circle]	178949-82-1	Sodium ethylene diamine disuccinate
Green [Circle]	1362053-75-5	Sodium glucarate
Green [Circle]	527-07-1	Sodium gluconate
Green [Circle]	51981-21-6	Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate
Colorants		
Yellow [Triangle]	63589-10-6	2-Anthracenesulfonic acid, 1-amino-9,10-dihydro-4-[(4-methoxyphenyl)amino]-9,10-dioxo-, sodium salt (1:1)
Half Green [Circle]	70210-05-8	C. I. Acid Violet 54
Half Green [Circle]	11006-34-1	C.I. 75810
Yellow [Triangle]	6408-80-6	C.I. Acid Blue 145
Yellow [Triangle]	6408-78-2	C.I. Acid Blue 25
Yellow [Triangle]	6424-85-7	C.I. Acid Blue 40
Yellow [Triangle]	4474-24-2	C.I. Acid Blue 80
Yellow [Triangle]	28983-56-4	C.I. Acid Blue 93
Yellow [Triangle]	5850-16-8	C.I. Acid Brown 14, disodium salt
Half Green [Circle]	19381-50-1	C.I. Acid Green 1
Yellow [Triangle]	1320-07-6	C.I. Acid Orange 24, monosodium salt
Yellow [Triangle]	3567-69-9	C.I. Acid Red 14
Half Green [Circle]	12220-28-9	C.I. Acid Red 289

[1] The most current list is available at: https://www.epa.gov/saferchoice/safer-ingredients. This list was downloaded 3/29/2017.

Green [Circle]	3520-42-1	C.I. Acid Red 52
Half Green [Circle]	6408-63-5	C.I. Acid Violet 34
Yellow [Triangle]	4430-18-6	C.I. Acid Violet 43
Yellow [Triangle]	72243-90-4	C.I. Acid Violet 48
Yellow [Triangle]	6359-98-4	C.I. Acid Yellow 17
Half Green [Circle]	1330-38-7	C.I. Direct Blue 86
Yellow [Triangle]	3626-36-6	C.I. Direct Orange 26
Green [Circle]	16470-24-9	C.I. Fluorescent Brightener 220
Green [Circle]	4193-55-9	C.I. Fluorescent Brightener 28, sodium salt
Green [Circle]	4404-43-7	C.I. Fluorescent Brightening Agent 28
Yellow [Triangle]	4548-53-2	C.I. Food Red 1
Half Green [Circle]	8028-89-5	C.I. Natural Brown 10
Green [Circle]	147-14-8	C.I. Pigment Blue 15
Green [Circle]	1328-53-6	C.I. Pigment Green 7
Yellow [Triangle]	12225-21-7	C.I. Pigment Yellow 100
Yellow [Triangle]	6358-69-6	C.I. Solvent Green 7
Half Green [Circle]	63950-02-7	C.I.Direct Blue 199
Half Green [Circle]	90295-11-7	Copper phthalocyanine, sulfamoyl sulfo derivs., sodium salts
Yellow [Triangle]	4403-90-1	D&C Green No. 5
Yellow [Triangle]	3567-66-6	D&C Red No. 33
Yellow [Triangle]	68921-42-6	FD&C Blue No. 1 aluminum lake
Green [Circle]	3844-45-9	FD&C Blue No.1
Half Green [Circle]	9079-33-8	FD&C Blue No.1, PEG Derivative
Yellow [Triangle]	2353-45-9	FD&C Green No. 3
Green [Circle]	25956-17-6	FD&C Red 40
Green [Circle]	1934-21-0	FD&C Yellow No. 5
Yellow [Triangle]	2783-94-0	FD&C Yellow No. 6
Yellow [Triangle]	15790-07-5	FD&C Yellow No. 6-aluminum lake
Half Green [Circle]	27344-06-5	Fluorescent Brightener 230
Green [Circle]	16090-02-1	FWA-1
Green [Circle]	13463-67-7	Titanium (IV) oxide

Defoamers

Green [Circle]	3004-93-1	2-Methyloctanoic acid
Green [Circle]	68154-97-2	Alcohols, C10-12, ethoxylated propoxylated
Green [Circle]	1302-78-9	Bentonite
Half Green [Circle]	67762-90-7	Dimethyl silicone polymer with silica
Green [Circle]	9003-11-6	Poloxalene
Half Green [Circle]	70131-67-8	Polydimethylsiloxane, hydroxy-terminated
Yellow [Triangle]	63148-62-9	Polydimethylsiloxanes
Green [Circle]	9004-99-3	Polyethylene glycol stearate
Yellow [Triangle]	9011-05-6	Polynoxylin
Green [Circle]	9082-00-2	Propylene oxide ethylene oxide polymer, ether with glycerol (3:1)
Yellow [Triangle]	68937-55-3	Siloxanes and Silicones, di-Me, 3-hydroxypropyl Me, ethoxylated propoxylated
Half Green [Circle]	68440-70-0	Siloxanes and Silicones, di-methyl, hydroxy-terminated, reaction products with chlorotrimethylsilane, hydrochloric acid, iso-Pr alc. and sodium silicate

Emollients

Green [Circle]	8002-31-1	Cocoa butter
Green [Circle]	8016-49-7	Cuburbita pepo seed oil
Green [Circle]	27138-31-4	Dipropylene glycol dibenzoate
Green [Circle]	8008-74-0	Fats and Glyceridic oils, sesame
Green [Circle]	91744-09-1	Glycerides, C16-18 and C18-unsatd. mono-

Green [Circle]	67701-28-4	Glycerides, C8-18 and C18-unsatd.
Green [Circle]	6309-51-9	Isoamyl laurate
Green [Circle]	142-91-6	Isopropyl palmitate
Green [Circle]	111-82-0	Methyl laurate
Green [Circle]	8023-79-8	Oils, palm kernel
Green [Circle]	68917-73-7	Oils, wheat
Green [Circle]	91078-92-1	Orbignya oleifera seed oil
Green [Circle]	111-01-3	Squalane
Green [Circle]	8001-21-6	Sunflower oil

Enzymes and Stabilizers

Green [Circle]	57-55-6	1,2-Propanediol
Yellow [Triangle]	9000-90-2	alpha-Amylase
Yellow [Triangle]	9000-92-4	Amylase
Yellow [Triangle]	9000-85-5	Amylase bacterial
Yellow [Triangle]	9080-56-2	Bacillolysin Bacillus metalloprotease
Yellow [Triangle]	1303-96-4	Borax
Yellow [Triangle]	1330-43-4	Boron sodium oxide
Green [Circle]	10043-52-4	Calcium chloride, anhydrous
Green [Circle]	10035-04-8	Calcium chloride, dihydrate
Green [Circle]	544-17-2	Calcium formate
Yellow [Triangle]	9012-54-8	Cellulase
Green [Circle]	59-51-8	DL-Methionine
Yellow [Triangle]	9014-08-8	Hydratase, phosphoenolpyruvate
Yellow [Triangle]	37288-54-3	Mannanase, endo-1,4-beta-
Yellow [Triangle]	10043-35-3	Orthoboric acid
Yellow [Triangle]	9032-75-1	Polygalacturonase
Yellow [Triangle]	9001-92-7	Proteinase
Yellow [Triangle]	9001-62-1	Rizolipase
Green [Circle]	141-53-7	Sodium formate
Yellow [Triangle]	9014-01-1	Subtilisins

Fragrance

Yellow [Triangle]	110-41-8	2-Methyl-undecanal
Yellow [Triangle]	65405-72-3	1,2,3,4,4a,7,8,8a-Octahydro-2,4a,5,8a-tetramethyl-1-naphthyl formate
Yellow [Triangle]	166432-52-6	1,3-Undecadien-5-yne
Yellow [Triangle]	150-78-7	1,4-dimethoxybenzene
Yellow [Triangle]	112-45-8	10-Undecenal
Half Green [Circle]	112-30-1	1-Decanol
Green [Circle]	112-53-8	1-Dodecanol
Half Green [Circle]	143-08-8	1-Nonanol
Half Green [Circle]	111-87-5	1-Octanol
Half Green [Circle]	112-72-1	1-Tetradecanol
Half Green [Circle]	112-42-5	1-Undecanol
Yellow [Triangle]	4674-50-4	2(3H)-Naphthalenone, 4,4a,5,6,7,8-hexahydro-4,4a-dimethyl-6-(1-methylethenyl)-, (4R,4aS,6R)-
Yellow [Triangle]	13254-34-7	2,6-Dimethyl-2-heptanol
Yellow [Triangle]	93-08-3	2-Acetylnaphthalene
Yellow [Triangle]	5471-51-2	2-Butanone, 4-(4-hydroxyphenyl)-
Yellow [Triangle]	137-03-1	2-Heptylcyclopentan-1-one
Yellow [Triangle]	51115-63-0	2-Methylbutyl salicylate
Yellow [Triangle]	13491-79-7	2-tert-Butylcyclohexanol
Yellow [Triangle]	67633-96-9	3-cis-Hexenyl methyl carbonate
Half Green [Circle]	562-74-3	3-Cyclohexen-1-ol, 4-methyl-1-(1-methylethyl)-

Yellow [Triangle]	1423-46-7	3-Cyclohexene-1-carboxaldehyde, 2,4,6-trimethyl-
Yellow [Triangle]	81782-77-6	3-Decen-5-ol, 4-methyl-
Yellow [Triangle]	65405-77-8	3-Hexenyl salicylate
Yellow [Triangle]	22457-23-4	3-Methyl-5-heptanone oxime
Yellow [Triangle]	54830-99-8	4,7-Methano-1H-indenol, 3a,4,5,6,7,7a-hexahydro-, acetate
Yellow [Triangle]	32210-23-4	4-t-Butylcyclohexyl acetate
Yellow [Triangle]	98-52-2	4-tert-Butylcyclohexanol
Half Green [Circle]	53219-21-9	7-Octen-2-ol, 2-methyl-6-methylene-, dihydro deriv.
Yellow [Triangle]	13019-22-2	9-Decen-1-ol
Yellow [Triangle]	127-41-3	alpha-Ionone
Yellow [Triangle]	127-51-5	alpha-Isomethylionone
Yellow [Triangle]	7779-30-8	alpha-Methyl ionone
Half Green [Circle]	98-55-5	alpha-Terpineol
Yellow [Triangle]	628-63-7	Amyl acetate
Yellow [Triangle]	2050-08-0	Amyl salicylate
Half Green [Circle]	28219-61-6	Balinol
Yellow [Triangle]	55066-48-3	Benzenepentanol, gamma-methyl-
Yellow [Triangle]	118-58-1	Benzyl salicylate
Yellow [Triangle]	151-05-3	Benzyldimethyl carbinyl acetate
Yellow [Triangle]	14901-07-6	beta-Ionone
Yellow [Triangle]	659-70-1	Butanoic acid, 3-methyl-, 3-methylbutyl ester
Yellow [Triangle]	28940-11-6	Calone
Yellow [Triangle]	79-92-5	Camphene
Yellow [Triangle]	99-49-0	Carvone
Yellow [Triangle]	928-96-1	cis-3-hexenol
Yellow [Triangle]	3681-71-8	cis-3-Hexenylacetate
Yellow [Triangle]	106-23-0	Citronellal
Yellow [Triangle]	106-22-9	Citronellol
Yellow [Triangle]	7492-67-3	Citronelloxyacetaldehyde
Yellow [Triangle]	150-84-5	Citronellyl acetate
Yellow [Triangle]	122-03-2	Cuminaldehyde
Yellow [Triangle]	81752-87-6	Cyclohexanecarboxylic acid, 2,2-dimethyl-6-methylene-, methyl ester
Yellow [Triangle]	70788-30-6	Cyclohexanepropanol, 2,2,6-trimethyl-.alpha.-propyl-
Yellow [Triangle]	38462-22-5	Cyclohexanone, 2-(1-mercapto-1-methylethyl)-5-methyl-
Yellow [Triangle]	4819-67-4	Cyclopentanone, 2-pentyl-
Yellow [Triangle]	112-31-2	Decaldehyde
Yellow [Triangle]	57378-68-4	delta-Damascone
Yellow [Triangle]	705-86-2	delta-Decalactone
Yellow [Triangle]	713-95-1	delta-Dodecalactone
Yellow [Triangle]	68912-13-0	Dicyclopentadiene propionate
Green [Circle]	105-53-3	Diethyl malonate
Yellow [Triangle]	106-21-8	Dihydrocitronellol
Half Green [Circle]	18479-58-8	Dihydromyrcenol
Yellow [Triangle]	10250-45-0	Diisobutyl carbinyl acetate
Green [Circle]	108-59-8	Dimethyl malonate
Yellow [Triangle]	68737-61-1	Dimethyl tetrahydrobenzaldehyde
Yellow [Triangle]	1191-16-8	Dimethylallyl acetate
Yellow [Triangle]	138-86-3	Dipentene
Yellow [Triangle]	101-84-8	Diphenyl oxide
Yellow [Triangle]	5989-27-5	D-Limonene

Yellow [Triangle]	15356-60-2	D-Menthol
Yellow [Triangle]	112-54-9	Dodecanal
Yellow [Triangle]	105-54-4	Ethyl butyrate
Yellow [Triangle]	67634-15-5	Ethyl dimethylhydrocinnamaldehyde
Half Green [Circle]	7452-79-1	Ethyl ester 2-methylbutanoic acid
Yellow [Triangle]	108-64-5	Ethyl isovalerate
Yellow [Triangle]	10339-55-6	Ethyl linalool
Yellow [Triangle]	61931-80-4	Ethyl linalyl acetate
Yellow [Triangle]	692-86-4	Ethyl undecylenate
Half Green [Circle]	121-32-4	Ethyl vanillin
Half Green [Circle]	105-95-3	Ethylene brassylate
Yellow [Triangle]	470-82-6	Eucalyptol
Half Green [Circle]	63500-71-0	Florol
Half Green [Circle]	706-14-9	gamma-Decalactone
Half Green [Circle]	105-21-5	gamma-Heptalactone
Half Green [Circle]	695-06-7	gamma-Hexalactone
Half Green [Circle]	104-61-0	gamma-Nonalactone
Half Green [Circle]	104-50-7	gamma-Octalactone
Yellow [Triangle]	99-85-4	gamma-Terpinene
Half Green [Circle]	104-67-6	Gamma-undecalactone
Green [Circle]	102-76-1	Glycerol triacetate
Half Green [Circle]	141773-73-1	Helvetolide
Yellow [Triangle]	66-25-1	Hexanal
Half Green [Circle]	123-66-0	Hexanoic acid, ethyl ester
Half Green [Circle]	142-92-7	Hexyl acetate
Yellow [Triangle]	6259-76-3	Hexyl Salicylate
Yellow [Triangle]	107-75-5	Hydroxycitronellal
Yellow [Triangle]	120-72-9	Indole
Yellow [Triangle]	8013-90-9	Ionone
Half Green [Circle]	123-92-2	Isoamyl acetate
Yellow [Triangle]	106-27-4	Isoamyl butyrate
Yellow [Triangle]	87-20-7	Isoamyl salicylate
Half Green [Circle]	110-19-0	Isobutyl acetate
Yellow [Triangle]	87-19-4	Isobutyl salicylate
Yellow [Triangle]	1335-66-6	Isocyclocitral
Yellow [Triangle]	125109-85-5	Isopropylphenylbutanal
Yellow [Triangle]	89-79-2	Isopulegol
Half Green [Circle]	18871-14-2	Jasmal
Half Green [Circle]	38285-49-3	Jasmin pyranol
Yellow [Triangle]	488-10-8	Jasmone
Yellow [Triangle]	6485-40-1	L-Carvone
Yellow [Triangle]	68039-49-6	Ligustral
Yellow [Triangle]	78-70-6	Linalool
Yellow [Triangle]	115-95-7	Linalyl acetate
Yellow [Triangle]	2216-51-5	L-Menthol
Yellow [Triangle]	106-72-9	Melonal
Yellow [Triangle]	1490-04-6	Menthol
Yellow [Triangle]	89-78-1	Menthol, racemic
Yellow [Triangle]	1335-46-2	Methy lonone
Yellow [Triangle]	111-79-5	Methyl 2-nonenoate
Yellow [Triangle]	111-80-8	Methyl 2-nonynoate
Yellow [Triangle]	93-58-3	Methyl benzoate

Yellow [Triangle]	79-89-0	Methyl delta-ionone
Green [Circle]	24851-98-7	Methyl dihydrojasmonate
Yellow [Triangle]	111-81-9	Methyl undecylenate
Half Green [Circle]	54982-83-1	Muskonate
Half Green [Circle]	543-39-5	Myrcenol
Yellow [Triangle]	93-18-5	Naphthalene, 2-ethoxy-
Yellow [Triangle]	93-04-9	Naphthalene, 2-methoxy-
Yellow [Triangle]	124-19-6	Nonanal
Yellow [Triangle]	124-13-0	Octanal
Yellow [Triangle]	112-14-1	Octyl acetate
Half Green [Circle]	109-29-5	Oxacycloheptadecan-2-one
Yellow [Triangle]	111879-80-2	Oxacyclohexadec-12-en-2-one, (12E)-
Yellow [Triangle]	111879-79-9	Oxacyclohexadec-12-en-2-one, (12Z)-
Yellow [Triangle]	99219-32-6	Oxacyclohexadec-13-en-2-one, (13E)-
Yellow [Triangle]	111879-81-3	Oxacyclohexadec-13-en-2-one, (13Z)-
Half Green [Circle]	106-02-5	Oxacyclohexadecan-2-one
Yellow [Triangle]	69103-20-4	Oxirane, 2,2-dimethyl-3-(3-methyl-2,4-pentadien-1-yl)-
Yellow [Triangle]	67634-14-4	p-Ethyl-alpha,alpha-dimethyl-hydrocinnamaldehyde
Yellow [Triangle]	67634-20-2	Propanoic acid, 2-methyl-, 3a,4,5,6,7,7a-hexahydro-4,7-methano-1H-inden-5-yl ester
Yellow [Triangle]	68039-39-4	Propanoic acid, 2-methyl-, 3a,4,5,6,7,7a-hexahydro-4,7-methano-1H-inden-6-yl ester
Half Green [Circle]	65113-99-7	Sandalore
Yellow [Triangle]	86803-90-9	Scentenal
Yellow [Triangle]	8008-57-9	Sweet orange oil
Half Green [Circle]	8000-41-7	Terpineol
Half Green [Circle]	8007-35-0	Terpineol acetate
Yellow [Triangle]	586-62-9	Terpinolene
Half Green [Circle]	80-26-2	Terpinyl acetate
Yellow [Triangle]	78-69-3	Tetrahydrolinalool
Yellow [Triangle]	928-97-2	trans-3-Hexenol
Yellow [Triangle]	17511-60-3	Tricyclodecenyl propionate
Yellow [Triangle]	77-93-0	Triethyl citrate
Yellow [Triangle]	112-44-7	Undecanal
Green [Circle]	121-33-5	Vanillin
Yellow [Triangle]	122-48-5	Vanillyl acetone
Yellow [Triangle]	88-41-5	Verdox
Yellow [Triangle]	5413-60-5	Verdyl acetate

Oxidants and Stabilizers

Yellow [Triangle]	6419-19-8	Aminotrimethylene phosphonic acid
Yellow [Triangle]	22042-96-2	Diethylenetriaminepenta(methylenephosphonic acid), sodium salt
Yellow [Triangle]	12027-70-2	Disodium tin hexahydrate
Green [Circle]	7722-84-1	Hydrogen peroxide
Yellow [Triangle]	13598-36-2	Phosphonic acid
Yellow [Triangle]	7664-38-2	Phosphoric acid
Yellow [Triangle]	10294-56-1	Phosphorous acid
Yellow [Triangle]	12142-33-5	Potassium stannate
Yellow [Triangle]	7758-16-9	Sodium acid pyrophosphate
Yellow [Triangle]	7631-99-4	Sodium nitrate
Green [Circle]	15630-89-4	Sodium percarbonate
Green [Circle]	7775-27-1	Sodium peroxydisulfate
Yellow [Triangle]	7722-88-5	Sodium pyrophosphate

Yellow [Triangle]	12058-66-1	Sodium stannate
Yellow [Triangle]	7758-29-4	Sodium tripolyphosphate
Yellow [Triangle]	10543-57-4	Tetraacetyl ethylene diamine
Yellow [Triangle]	7320-34-5	Tetrapotassium pyrophosphate
Polymers		
Green [Circle]	25722-45-6	2,5-Furandione, polymer with 1-propene
Green [Circle]	37199-81-8	2,5-Furandione, polymer with 2,4,4-trimethylpentene, sodium salt
Green [Circle]	26022-09-3	2,5-Furandione, polymer with ethenylbenzene, ammonium salt
Green [Circle]	52720-34-0	2,5-Furandione, telomer with ethenylbenzene and (1-methylethyl)benzene, ammonium salt
Green [Circle]	52500-92-2	2,5-Furandione, telomer with ethenylbenzene and (1-methylethyl)benzene, sodium salt
Green [Circle]	29132-58-9	2-Butenedioic acid (2Z)-, polymer with 2-propenoic acid
Green [Circle]	25322-99-0	2-Propenoic acid, 2-methyl-, butyl ester, polymer with butyl 2-propenoate and methyl 2-methyl-2-propenoate
Green [Circle]	25213-39-2	2-Propenoic acid, 2-methyl-, butyl ester, polymer with ethenylbenzene
Green [Circle]	25608-33-7	2-Propenoic acid, 2-methyl-, butyl ester, polymer with methyl 2-methyl-2-propenoate
Green [Circle]	65405-40-5	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
Green [Circle]	25767-39-9	2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethenylbenzene and 2-propenoic acid
Green [Circle]	28205-96-1	2-Propenoic acid, 2-methyl-, polymer with 2-propenoic acid, sodium salt
Green [Circle]	25950-40-7	2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate, butyl 2-propenoate, ethenylbenzene and methyl 2-methyl-2-propenoate
Green [Circle]	25035-82-9	2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate
Green [Circle]	25036-16-2	2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate and ethenylbenzene
Green [Circle]	25035-69-2	2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate and methyl 2-methyl-2-propenoate
Green [Circle]	94031-39-7	2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, (1-methylethenyl)benzene and methyl 2-methyl-2-propenoate
Green [Circle]	67892-91-5	2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, ethene, ethenylbenzene, ethyl 2-propenoate and methyl 2-methyl-2-propenoate
Green [Circle]	25987-66-0	2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, ethenylbenzene and methyl 2-methyl-2-propenoate
Green [Circle]	137899-00-4	2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, ethenylbenzene and methyl 2-methyl-2-propenoate, calcium salt
Green [Circle]	63744-68-3	2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, ethenylbenzene, ethyl 2-propenoate and methyl 2-methyl-2-propenoate

Green [Circle]	31392-42-4	2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, ethenylbenzene, methyl 2-methyl-2-propenoate and 2-propenenitrile
Green [Circle]	9010-92-8	2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene
Green [Circle]	25035-81-8	2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene and methyl 2-methyl-2-propenoate
Green [Circle]	65405-63-2	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)
Green [Circle]	25212-88-8	2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate
Green [Circle]	25086-15-1	2-Propenoic acid, 2-methyl-, polymer with methyl 2-methyl-2-propenoate
Green [Circle]	70879-60-6	2-Propenoic acid, 2-methyl-, polymers with Et acrylate and polyethylene glycol methacrylate C16-18-alkyl ethers methacrylic acid polymer
Green [Circle]	9003-01-4	2-Propenoic acid, homopolymer
Green [Circle]	9003-04-7	2-Propenoic acid, homopolymer, sodium salt
Green [Circle]	52255-49-9	2-Propenoic acid, polymer with 2,5-furandione, sodium salt
Green [Circle]	31212-13-2	2-Propenoic acid, potassium salt (1:1), polymer with 2-propenamide
Green [Circle]	68479-09-4	2-Propenoic acid, telomer with sodium hydrogen sulfite, sodium salt
Green [Circle]	66019-18-9	2-Propenoic acid, telomer with sodium sulfite (1:1)
Green [Circle]	71832-81-0	Benzenesulfonic acid, hydroxy-, sodium salt (1:1), polymer with formaldehyde and 4,4'-sulfonylbis[phenol]
Green [Circle]	26099-88-7	Butanedioic acid, 2-methylene-, polymer with 2-propenoic acid, sodium salt
Green [Circle]	156042-41-0	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
Green [Circle]	68441-17-8	Ethene, homopolymer, oxidized
Green [Circle]	9010-77-9	Ethylene/acrylic acid copolymer
Green [Circle]	31694-55-0	Glycerol poly(oxyethylene) ether
Green [Circle]	70142-34-6	Octadecanoic acid, 12-hydroxy-, polymer with alpha-hydro-omega-hydroxypoly(oxy-1,2-ethanediyl)
Green [Circle]	9003-29-6	Polybutene
Green [Circle]	25322-68-3	Polyethylene glycol
Green [Circle]	26099-09-2	Polymaleic acid
Green [Circle]	25087-26-7	Polymethacrylic acid
Green [Circle]	9003-07-0	Polypropylene
Green [Circle]	9002-89-5	Polyvinyl alcohol
Green [Circle]	9003-39-8	Polyvinylpyrrolidone
Green [Circle]	8061-51-6	Sodium ligninsulfonate
Green [Circle]	25086-62-8	Sodium polymethacrylate
Green [Circle]	54193-36-1	Sodium polymethacrylate
Green [Circle]	1443994-56-6	Sorbitan oleate decylglucoside crosspolymer
Green [Circle]	25213-24-5	Vinyl acetate vinyl alcohol polymer
Preservatives and Antioxidants		
Yellow [Triangle]	2634-33-5	1,2-Benzisothiazol-3(2H)-one

Green [Circle]	59-02-9	alpha-Tocopherol
Half Green [Circle]	137-66-6	Ascorbyl palmitate
Green [Circle]	65-85-0	Benzoic acid
Green [Circle]	582-25-2	Benzoic acid, potassium salt
Green [Circle]	532-32-1	Benzoic acid, sodium Salt
Green [Circle]	7492-55-9	Calcium sorbate
Green [Circle]	1117-86-8	Caprylyl glycol
Yellow [Triangle]	520-45-6	Dehydroacetic acid
Yellow [Triangle]	7681-57-4	Disulfurous acid, disodium salt
Green [Circle]	10191-41-0	DL-alpha-Tocopherol
Green [Circle]	50-21-5	DL-Lactic acid
Green [Circle]	64-18-6	Formic acid
Half Green [Circle]	91052-16-3	Hydrogenated palm glycerides citrate
Green [Circle]	79-33-4	L-Lactic acid
Yellow [Triangle]	13446-18-9	Magnesium (II) nitrate, hexahydrate
Yellow [Triangle]	10377-60-3	Magnesium nitrate
Yellow [Triangle]	26172-55-4	Methyl chloro isothiazolinone
Yellow [Triangle]	2682-20-4	Methyl isothiazolinone
Green [Circle]	6683-19-8	Pentaerythritol, tetrakis(3,5-di-tert-butyl-4-hydroxyhydrocinnamate)
Yellow [Triangle]	122-99-6	Phenoxyethanol
Green [Circle]	24634-61-5	Potassium (E,E)-sorbate
Green [Circle]	590-00-1	Potassium sorbate
Green [Circle]	68-04-2	Sodium citrate, anhydrous
Green [Circle]	6132-04-3	Sodium citrate, dihydrate
Yellow [Triangle]	7631-99-4	Sodium nitrate
Green [Circle]	137-40-6	Sodium propionate
Green [Circle]	110-44-1	Sorbic acid
Green [Circle]	7695-91-2	Tocopherol acetate
Yellow [Triangle]	112-38-9	Undecylenic acid
Green [Circle]	58-95-7	Vitamin E acetate
Processing Aids and Additives		
Green [Circle]	64-19-7	Acetic acid
Green [Circle]	97-30-3	alpha-Methylglucoside
Green [Circle]	50-81-7	Ascorbic acid
Green [Circle]	1302-78-9	Bentonite
Green [Circle]	66402-68-4	Calcined kaolin
Green [Circle]	62-54-4	Calcium acetate
Green [Circle]	471-34-1	Calcium carbonate
Green [Circle]	10043-52-4	Calcium chloride, anhydrous
Green [Circle]	10035-04-8	Calcium chloride, dihydrate
Green [Circle]	813-94-5	Calcium citrate
Green [Circle]	544-17-2	Calcium formate
Green [Circle]	1305-62-0	Calcium hydroxide
Green [Circle]	76123-46-1	Calcium magnesium acetate
Green [Circle]	1344-95-2	Calcium silicate
Green [Circle]	120962-03-0	Canola oil
Green [Circle]	9000-07-1	Carrageenan
Green [Circle]	9004-34-6	Cellulose
Green [Circle]	9004-65-3	Cellulose, 2-hydroxypropyl methyl ether
Green [Circle]	9004-32-4	Cellulose, carboxymethyl ether, sodium salt
Green [Circle]	68442-85-3	Cellulose, regenerated
Green [Circle]	77-92-9	Citric acid, anhydrous
Green [Circle]	5949-29-1	Citric acid, monohydrate

Green [Circle]	8001-31-8	Coconut oil
Green [Circle]	66071-96-3	Corn gluten protein
Green [Circle]	8001-30-7	Corn oil
Green [Circle]	8029-43-4	Corn sugar syrup
Green [Circle]	334-48-5	Decanoic Acid
Green [Circle]	9004-53-9	Dextrin
Green [Circle]	526-95-4	D-Gluconic acid
Green [Circle]	50-99-7	D-Glucose
Green [Circle]	3609-96-9	Dipotassium hydrogen citrate
Green [Circle]	13870-28-5	Disodium disilicate
Green [Circle]	50-21-5	DL-Lactic acid
Green [Circle]	64-18-6	Formic acid
Green [Circle]	110-17-8	Fumaric acid
Green [Circle]	65997-17-3	Glass fibers
Green [Circle]	90-80-2	Gluconolactone
Green [Circle]	56-40-6	Glycine
Green [Circle]	9000-30-0	Guar gum
Half Green [Circle]	12173-47-6	Hectorite
Yellow [Triangle]	7647-01-0	Hydrochloric acid (aqueous)
Green [Circle]	9004-62-0	Hydroxyethyl cellulose
Green [Circle]	9004-64-2	Hydroxypropyl cellulose
Green [Circle]	430439-54-6	Inulin, carboxymethyl ether, sodium salt
Green [Circle]	1332-58-7	Kaolin
Green [Circle]	1317-65-3	Limestone
Green [Circle]	79-33-4	L-Lactic acid
Green [Circle]	142-72-3	Magnesium acetate
Green [Circle]	7786-30-3	Magnesium chloride, anhydrous
Green [Circle]	7791-18-6	Magnesium chloride, hexahydrate
Green [Circle]	1309-42-8	Magnesium hydroxide
Green [Circle]	1309-48-4	Magnesium oxide
Green [Circle]	7487-88-9	Magnesium sulfate, anhydrous
Green [Circle]	10034-99-8	Magnesium sulfate, heptahydrate
Green [Circle]	6915-15-7	Malic acid
Green [Circle]	9050-36-6	Maltodextrin
Green [Circle]	75-75-2	Methanesulfonic acid
Green [Circle]	9004-67-5	Methyl cellulose
Green [Circle]	8052-35-5	Molasses, blackstrap
Green [Circle]	37244-96-5	Nepheline syenite
Yellow [Triangle]	7697-37-2	Nitric acid (aqueous)
Green [Circle]	8001-25-0	Olive oil
Green [Circle]	8002-75-3	Palm oil
Half Green [Circle]	133892-9-66-0	PEG-120 methyl glucose trioleate
Green [Circle]	93763-70-3	Perlite
Green [Circle]	127-08-2	Potassium acetate
Green [Circle]	298-14-6	Potassium bicarbonate
Green [Circle]	584-08-7	Potassium carbonate, anhydrous
Green [Circle]	7447-40-7	Potassium chloride
Green [Circle]	866-84-2	Potassium citrate, anhydrous
Green [Circle]	6100-05-6	Potassium citrate, monohydrate
Green [Circle]	1310-58-3	Potassium hydroxide
Green [Circle]	996-31-6	Potassium lactate
Green [Circle]	1312-76-1	Potassium silicate

Green [Circle]	7778-80-5	Potassium sulfate
Green [Circle]	1332-09-8	Pumice
Green [Circle]	68909-20-6	Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica
Green [Circle]	7631-86-9	Silica
Green [Circle]	63231-67-4	Silica gel
Green [Circle]	10213-79-3	Silicic acid, disodium salt, pentahydrate
Green [Circle]	409-21-2	Silicon carbide
Green [Circle]	12199-37-0	Smectite-group minerals
Green [Circle]	127-09-3	Sodium acetate
Green [Circle]	144-55-8	Sodium bicarbonate
Green [Circle]	7681-38-1	Sodium bisulfate
Green [Circle]	497-19-8	Sodium carbonate, anhydrous
Green [Circle]	5968-11-6	Sodium carbonate, monohydrate
Green [Circle]	7647-14-5	Sodium chloride
Green [Circle]	68-04-2	Sodium citrate, anhydrous
Green [Circle]	6132-04-3	Sodium citrate, dihydrate
Green [Circle]	18996-35-5	Sodium dihydrogen citrate
Green [Circle]	141-53-7	Sodium formate
Green [Circle]	527-07-1	Sodium gluconate
Green [Circle]	1310-73-2	Sodium hydroxide
Green [Circle]	867-56-1	Sodium lactate
Green [Circle]	72-17-3	Sodium lactate
Green [Circle]	53320-86-8	Sodium magnesium silicate
Green [Circle]	6834-92-0	Sodium metasilicate
Green [Circle]	137-40-6	Sodium propionate
Green [Circle]	533-96-0	Sodium sesquicarbonate
Green [Circle]	1344-09-8	Sodium silicate
Green [Circle]	9063-38-1	Sodium starch glycolate
Green [Circle]	7757-82-6	Sodium sulfate
Green [Circle]	7757-83-7	Sodium sulfite
Half Green [Circle]	7772-98-7	Sodium thiosulfate
Half Green [Circle]	10102-17-7	Sodium thiosulfate, pentahydrate
Green [Circle]	50-70-4	Sorbitol
Green [Circle]	8001-22-7	Soybean oil
Green [Circle]	9005-25-8	Starch
Green [Circle]	9049-76-7	Starch, 2-hydroxypropyl ether
Green [Circle]	57-50-1	Sucrose
Green [Circle]	5329-14-6	Sulfamic acid
Yellow [Triangle]	7664-93-9	Sulfuric acid (aqueous)
Green [Circle]	7631-90-5	Sulfurous acid, monosodium salt
Half Green [Circle]	107-35-7	Taurine
Green [Circle]	13463-67-7	Titanium (IV) oxide
Green [Circle]	207308-34-7	Urea, methanesulfonate (1:1)
Green [Circle]	8028-52-2	Vinegar
Green [Circle]	11138-66-2	Xanthan gum
Green [Circle]	1318-02-1	Zeolites
Skin Conditioning Agents		
Green [Circle]	299-28-5	Calcium gluconate
Half Green [Circle]	137-08-6	Calcium pantothenate
Green [Circle]	8002-31-1	Cocoa butter
Green [Circle]	8001-29-4	Cottonseed oil
Green [Circle]	8016-49-7	Cuburbita pepo seed oil

Green [Circle]	27138-31-4	Dipropylene glycol dibenzoate
Half Green [Circle]	16485-10-2	DL-Panthenol
Half Green [Circle]	81-13-0	D-Panthenol
Green [Circle]	8024-32-6	Fats and Glyceridic oils, avocado
Green [Circle]	68553-81-1	Fats and Glyceridic oils, rice bran
Green [Circle]	8008-74-0	Fats and Glyceridic oils, sesame
Green [Circle]	23351-51-1	Glucoheptanoic acid
Green [Circle]	67701-28-4	Glycerides, C8-18 and C18-unsatd.
Half Green [Circle]	8001-26-1	Linseed oil
Half Green [Circle]	63-68-3	L-Methionine
Green [Circle]	111-82-0	Methyl laurate
Green [Circle]	106457-91-4	Oils, oat
Green [Circle]	68917-73-7	Oils, wheat
Half Green [Circle]	79-83-4	Panthothenic acid
Green [Circle]	299-27-4	Potassium gluconate
Green [Circle]	8001-23-8	Safflower oil
Green [Circle]	111-01-3	Squalane
Green [Circle]	8001-21-6	Sunflower oil
Solvents		
Green [Circle]	20324-32-7	1-(2-Methoxy-1-methylethoxy)-2-propanol
Green [Circle]	110-98-5	1,1'-Dimethyldiethylene glycol
Green [Circle]	584-03-2	1,2-Butanediol
Green [Circle]	6920-22-5	1,2-Hexanediol
Green [Circle]	57-55-6	1,2-Propanediol
Green [Circle]	107-88-0	1,3-Butanediol
Half Green [Circle]	4437-85-8	1,3-Dioxolan-2-one, 4-ethyl-
Green [Circle]	504-63-2	1,3-Propanediol
Green [Circle]	112-53-8	1-Dodecanol
Green [Circle]	107-98-2	1-Methoxy-2-propanol
Green [Circle]	1569-01-3	1-Propoxy-2-propanol
Half Green [Circle]	112-42-5	1-Undecanol
Green [Circle]	100-79-8	2,2-dimethyl-1,3-Dioxolane-4-methanol
Green [Circle]	107-41-5	2-Methyl-2,4-pentanediol
Green [Circle]	4435-53-4	3-Methoxybutyl acetate
Green [Circle]	56539-66-3	3-Methyl-3-methoxybutanol
Half Green [Circle]	931-40-8	4-Hydroxymethyl-1,3-dioxolan-2-one
Yellow [Triangle]	39202-17-0	9-Dodecenoic acid, methyl ester
Green [Circle]	67762-41-8	Alcohols, C10-16
Half Green [Circle]	66455-17-2	Alcohols, C9-11
Green [Circle]	5405-41-4	Butanoic acid, 3-hydroxy-, ethyl ester
Green [Circle]	92011-00-2	Butyl-3-hydroxy-2-methylbuyrate
Green [Circle]	53605-94-0	Butyl-3-hydroxybutanoate
Green [Circle]	68425-37-6	Coconut alcohol
Yellow [Triangle]	112-34-5	Diethylene glycol mono-N-butyl ether
Green [Circle]	627-93-0	Dimethyl adipate
Green [Circle]	14035-95-1	Dimethyl ethylsuccinate
Green [Circle]	1119-40-0	Dimethyl glutarate
Green [Circle]	106-65-0	Dimethyl succinate
Green [Circle]	25265-71-8	Dipropylene glycol
Green [Circle]	34590-94-8	Dipropylene glycol methyl ether
Yellow [Triangle]	29911-28-2	Dipropylene glycol monobutyl ether
Yellow [Triangle]	29911-27-1	Dipropylene glycol propyl ether
Yellow [Triangle]	5989-27-5	D-Limonene

Green [Circle]	64-17-5	Ethanol
Half Green [Circle]	97-64-3	Ethyl lactate
Half Green [Circle]	763-69-9	Ethyl-3-ethoxy propionate
Yellow [Triangle]	68937-84-8	Fatty acids, C12-18, methyl esters
Yellow [Triangle]	67762-38-3	Fatty acids, C16-18 and C18-unsatd., methyl esters
Yellow [Triangle]	68919-53-9	Fatty acids, soya, Me esters
Green [Circle]	73398-61-5	Glycerides, mixed decanoyl and octanoyl
Green [Circle]	56-81-5	Glycerol
Green [Circle]	67-63-0	Isopropanol
Green [Circle]	54074-94-1	Isopropyl 3-hydroxybutyrate
Half Green [Circle]	110-27-0	Isopropyl myristate
Green [Circle]	111-82-0	Methyl laurate
Green [Circle]	14035-94-0	Pentanedioic acid, 2-methyl-, 1,5-dimethyl ester
Green [Circle]	5343-92-0	Pentylene glycol
Yellow [Triangle]	25322-69-4	Polypropylene glycol
Green [Circle]	88917-22-0	Propanol 1 (or 2)-2-methoxymethyl ethoxy, acetate
Yellow [Triangle]	25498-49-1	Propanol, [2-(2-methoxymethylethoxy)methylethoxy]-
Green [Circle]	109-60-4	Propyl acetate
Green [Circle]	108-32-7	Propylene carbonate
Green [Circle]	108-65-6	Propylene glycol methyl ether acetate
Green [Circle]	5131-66-8	Propylene glycol n-butyl ether
Yellow [Triangle]	67784-80-9	Soybean oil, methyl esters
Half Green [Circle]	112-60-7	Tetraethylene glycol
Green [Circle]	24800-44-0	Tripropylene glycol
Green [Circle]	55934-93-5	Tripropylene glycol n-butyl ether
Green [Circle]	7732-18-5	Water
Green [Circle]	8042-47-5	White mineral oil, petroleum

Specialized Industrial Chemicals

Yellow [Triangle]	27136-73-8	1H-Imidazole-1-ethanol, 2-(heptadecenyl)-4,5-dihydro-
Yellow [Triangle]	1066-33-7	Ammonium bicarbonate
Yellow [Triangle]	506-87-6	Ammonium carbonate
Yellow [Triangle]	1336-21-6	Ammonium hydroxide
Yellow [Triangle]	34455-29-3	Amphoteric fluorinated surfactant
Yellow [Triangle]	452080-64-7	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
Yellow [Triangle]	452080-67-0	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
Yellow [Triangle]	141-43-5	Ethanolamine
Yellow [Triangle]	67762-38-3	Fatty acids, C16-18 and C18-unsatd., methyl esters
Yellow [Triangle]	68919-53-9	Fatty acids, soya, Me esters
Yellow [Triangle]	27619-97-2	Halogenated aliphatic acid
Yellow [Triangle]	67784-80-9	Soybean oil, methyl esters
Yellow [Triangle]	78-51-3	Tri-2-Butoxyethyl phosphate
Yellow [Triangle]	102-71-6	Triethanolamine

Surfactants

Green [Circle]	128824-30-6	1-Dodecanesulfonic acid, hydroxy-, sodium salt

Green [Circle]	147170-44-3	1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-(C8-18 and C18-unsatd. acyl) derivs., inner salts
Green [Circle]	61789-39-7	1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., chlorides, sodium salts
Green [Circle]	61789-40-0	1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., inner salts
Green [Circle]	73772-45-9	1-Propanaminium, N-(carboxymethyl)-N,N-dimethyl-3-[(1-oxodecyl)amino]-, inner salt
Green [Circle]	73772-46-0	1-Propanaminium, N-(carboxymethyl)-N,N-dimethyl-3-[(1-oxooctyl)amino]-, inner salt
Green [Circle]	125590-73-0	2-Ethylhexyl-alpha-D-glucoside
Green [Circle]	161074-93-7	2-Ethylhexyl-poly-D-glucosides
Green [Circle]	506-31-0	9-Eicosenoic acid
Green [Circle]	68154-97-2	Alcohols, C10-12, ethoxylated propoxylated
Green [Circle]	66455-15-0	Alcohols, C10-14, ethoxylated
Green [Circle]	68002-97-1	Alcohols, C10-16, ethoxylated
Green [Circle]	69227-22-1	Alcohols, C10-16, ethoxylated propoxylated
Green [Circle]	78330-21-9	Alcohols, C11-14-iso-, C13-rich, ethoxylated
Green [Circle]	68131-40-8	Alcohols, C11-15-secondary, ethoxylated
Green [Circle]	66455-14-9	Alcohols, C12-13, ethoxylated
Green [Circle]	68439-50-9	Alcohols, C12-14, ethoxylated
Green [Circle]	68439-51-0	Alcohols, C12-14, ethoxylated propoxylated
Green [Circle]	84133-50-6	Alcohols, C12-14-secondary, ethoxylated
Green [Circle]	68131-39-5	Alcohols, C12-15, ethoxylated
Green [Circle]	68551-13-3	Alcohols, C12-15, ethoxylated propoxylated
Green [Circle]	120313-48-6	Alcohols, C12-15-branched and linear, ethoxylated propoxylated
Green [Circle]	68551-12-2	Alcohols, C12-16, ethoxylated
Green [Circle]	67762-25-8	Alcohols, C12-18
Green [Circle]	146340-16-1	Alcohols, C12-18, ethers with polyethylene glycol mono-Bu ether
Green [Circle]	68213-23-0	Alcohols, C12-18, ethoxylated
Green [Circle]	68951-67-7	Alcohols, C14-15, ethoxylated
Green [Circle]	68439-49-6	Alcohols, C16-18, ethoxylated
Green [Circle]	70879-83-3	Alcohols, C6-10, ethoxylated
Green [Circle]	68987-81-5	Alcohols, C6-10, ethoxylated propoxylated
Green [Circle]	68439-45-2	Alcohols, C6-12, ethoxylated
Green [Circle]	68937-66-6	Alcohols, C6-12, ethoxylated and propoxylated
Green [Circle]	71060-57-6	Alcohols, C8-10, ethoxylated
Green [Circle]	68603-25-8	Alcohols, C8-10, ethoxylated propoxylated
Green [Circle]	69013-18-9	Alcohols, C8-18, ethoxylated propoxylated
Green [Circle]	68439-46-3	Alcohols, C9-11, ethoxylated
Green [Circle]	73296-89-6	Alkyl(C12-C16)alcohol sulfate sodium salt
Green [Circle]	70851-07-9	Amides, coco, N-[3-(dimethylamino)propyl], alkylation products with chloroacetic acid, sodium salts
Green [Circle]	70592-80-2	Amines, C10-16-alkyldimethyl, N-oxides
Green [Circle]	68955-55-5	Amines, C12-18-alkyldimethyl, N-oxides
Green [Circle]	61791-47-7	Amines, coco alkyl dihydroxyethyl, oxides
Green [Circle]	2235-54-3	Ammonium lauryl sulfate
Green [Circle]	26447-10-9	Ammonium xylenesulfonate

Green [Circle]	506-30-9	Arachidic acid
Green [Circle]	112-85-6	Behenic acid
Green [Circle]	32073-22-6	Benzene, (1-methylethyl)-, monosulfo deriv., sodium salt (1:1)
Green [Circle]	85536-14-7	Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.
Green [Circle]	127184-52-5	Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., sodium salts
Green [Circle]	69669-44-9	Benzenesulfonic acid, C10-14-alkyl derivs., sodium salts
Green [Circle]	68584-22-5	Benzenesulfonic acid, C10-16-alkyl derivs.
Green [Circle]	68584-26-9	Benzenesulfonic acid, C10-16-alkyl derivs., magnesium salts
Green [Circle]	68081-81-2	Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts
Green [Circle]	94441-92-6	beta-Alanine, N-(2-carboxyethyl)-N-(2-ethylhexyl)-, sodium salt (1:1)
Green [Circle]	72869-77-3	Betaines, C10-16-alkyl(2-hydroxy-3-sulfopropyl)dimethyl
Green [Circle]	68424-94-2	Betaines, coco alkyldimethyl
Green [Circle]	3006-15-3	Bis(1-methylamyl) sodium sulfosuccinate
Green [Circle]	68815-56-5	Butanedioic acid, sulfo-, mono(C10-C16)alkyl ethoxylated ester, disodium salt
Green [Circle]	31387-97-0	Butyl D-glucoside
Green [Circle]	510758-10-8	Butyl poly-D-glucosides
Green [Circle]	90194-45-9	C10-13 Alkyl benzenesulfonic acid, sodium salts
Green [Circle]	110615-47-9	C10-16 Alkyl-poly-D-glucosides
Green [Circle]	157707-88-5	C12-14 Alkyl-poly-D-glucosides
Green [Circle]	510759-65-6	C12-16 Alkyl-poly-D-glucosides
Green [Circle]	113976-90-2	C6-12 Alkyl-poly-D-glucosides
Green [Circle]	161074-97-1	C8-10 Alkyl-poly-D-glucosides
Green [Circle]	141464-42-8	C8-16 Alkyl-poly-D-glucosides
Green [Circle]	132778-08-6	C9-11 Alkyl-poly-D-glucosides
Green [Circle]	2605-79-0	Capric dimethyl amine oxide
Green [Circle]	68187-76-8	Castor oil, sulfated, sodium salt
Green [Circle]	7128-91-8	Cetamine oxide
Green [Circle]	68139-30-0	Cocamidopropyl hydroxysultaine
Green [Circle]	68155-09-9	Cocamidopropylamine oxide
Green [Circle]	61788-90-7	Cocamine oxide
Green [Circle]	61791-29-5	Coconut fatty acids, ethoxylated
Green [Circle]	68814-96-0	Coconut oil, sodium salt
Green [Circle]	53980-88-4	Cyclocarboxypropyloleic acid
Green [Circle]	334-48-5	Decanoic Acid
Green [Circle]	13040-18-1	Decanoic acid, potassium salt (1:1)
Green [Circle]	1002-62-6	Decanoic acid, sodium salt
Green [Circle]	68515-73-1	Decyl, octyl-poly-D-glucosides
Green [Circle]	1322-98-1	Decylbenzenesulfonic acid
Green [Circle]	161074-85-7	Decyl-poly-D-glucosides
Green [Circle]	151911-51-2	D-Glucopyranose, oligomeric, 6-(dihydrogen 2-hydroxy-1,2,3-propanetricarboxylate), 1-(coco alkyl) ethers, sodium salts
Green [Circle]	742087-49-6	D-Glucopyranose, oligomeric, C10-16-alkyl glycosides, 2-hydroxy-3-sulfopropyl ethers, sodium salts
Green [Circle]	3088-31-1	Diethylene glycol momolauryl ether sodium sulfate
Green [Circle]	68187-30-4	Disodium cocoyl glutamate

Green [Circle]	3655-00-3	Disodium lauriminodipropionate
Green [Circle]	32208-04-1	Distearoylethyl hydroxyethylmonium methosulfate
Green [Circle]	143-07-7	Dodecanoic acid
Green [Circle]	928663-45-0	Dodecanoic acid, methyl-2-sulfoethyl ester, sodium salt (1:1)
Green [Circle]	10124-65-9	Dodecanoic acid, potassium salt
Green [Circle]	629-25-4	Dodecanoic acid, sodium salt
Green [Circle]	30965-85-6	Dodecene-1-sulfonic acid, sodium salt
Green [Circle]	9002-92-0	Dodecyl alcohol, ethoxylated
Green [Circle]	3055-94-5	Dodecyl triethylene glycol ether
Green [Circle]	27176-87-0	Dodecylbenzene sulfonic acid
Green [Circle]	59122-55-3	Dodecyl-beta-D-glucoside
Green [Circle]	1079184-43-2	Ethanaminium, 2-hydroxy-N-(2-hydroxyethyl)-N,N-dimethyl-, esters with C16-18 and C18-unsatd. fatty acids, chlorides
Green [Circle]	157905-74-3	Ethanaminium, 2-hydroxy-N,N-bis(2-hydroxyethyl)-N-methyl-, esters with C16-18 and C18-unsatd. fatty acids, methyl sulfates (salts)
Green [Circle]	67846-68-8	Ethanaminium, N,N-dimethyl-2-[(1-oxooctadecyl)oxy]-N-[2-[(1-oxooctadecyl)oxy]ethyl]-, chloride
Green [Circle]	4219-49-2	Ethylene glycol monopalmitate
Green [Circle]	111-60-4	Ethylene glycol monostearate
Green [Circle]	68002-90-4	Fatty acids, C10-16
Green [Circle]	149458-07-1	Fatty acids, C12-18, methyl esters, sulfonated, sodium salts
Green [Circle]	67701-06-8	Fatty acids, C14-18 and C16-18-unsatd.
Green [Circle]	67701-03-5	Fatty acids, C16-18
Green [Circle]	67701-08-0	Fatty acids, C16-18 and C18-unsatd.
Green [Circle]	68955-98-6	Fatty acids, C16-18 and C18-unsatd., branched and linear
Green [Circle]	67701-05-7	Fatty acids, C8-18 and C18-unsatd.
Green [Circle]	61788-47-4	Fatty acids, coco
Green [Circle]	61789-31-9	Fatty acids, coco, sodium salts
Green [Circle]	61789-30-8	Fatty acids, coconut oil, potassium salts
Green [Circle]	61789-32-0	Fatty acids, coconut oil, sulfoethyl esters, sodium salts
Green [Circle]	61789-88-6	Fatty acids, olive-oil, sodium salts
Green [Circle]	68440-13-1	Fatty acids, palm kernel-oil, methyl esters, sulfonated, sodium salts
Green [Circle]	61790-79-2	Fatty acids, palm-oil, sodium salts
Green [Circle]	68440-19-7	Fatty acids, safflower-oil, sodium salts
Green [Circle]	61790-12-3	Fatty acids, tall-oil
Green [Circle]	61790-44-1	Fatty acids, tall-oil, potassium salts
Green [Circle]	61790-45-2	Fatty acids, tall-oil, sodium salts
Green [Circle]	61790-37-2	Fatty acids, tallow
Green [Circle]	68605-97-0	Fatty acids, tallow, hydrogenated, compds. with triethanolamine
Green [Circle]	8052-48-0	Fatty acids, tallow, sodium salts
Green [Circle]	137-16-6	Gardol
Green [Circle]	67701-33-1	Glycerides, C14-18 mono- and di-
Green [Circle]	68424-61-3	Glycerides, C16-18 and C18-unsatd. mono- and di-
Green [Circle]	85251-77-0	Glycerides, C16-18 mono- and di-
Green [Circle]	91052-13-0	Glycerides, C8-18 and C18-unsatd. mono- and di-, acetates
Green [Circle]	736150-63-3	Glycerides, castor-oil mono-, hydrogenated, acetates
Green [Circle]	37220-82-9	Glycerine oleate

Green [Circle]	111-03-5	Glyceryl monooleate
Green [Circle]	25496-72-4	Glyceryl monooleate [NF]
Green [Circle]	123-94-4	Glyceryl monostearate
Green [Circle]	31566-31-1	Glyceryl monostearate
Green [Circle]	11099-07-3	Glyceryl stearates
Green [Circle]	68411-97-2	Glycine, N-methyl-, N-coco acyl derivs.
Green [Circle]	627-83-8	Glycol distearate
Green [Circle]	506-12-7	Heptadecanoic acid
Green [Circle]	142-62-1	Hexanoic Acid
Green [Circle]	54549-24-5	Hexyl D-glucoside
Green [Circle]	31726-34-8	Hexyl poly(oxyethylene) ether
Green [Circle]	68604-71-7	Imidazolium compounds, 1-[2-(2-carboxyethoxy)ethyl]-1(or 3)-(2-carboxyethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, disodium salts
Green [Circle]	67-63-0	Isopropanol
Green [Circle]	4292-10-8	Lauramidopropyl betaine
Green [Circle]	61792-31-2	Lauramidopropylamine oxide
Green [Circle]	13197-76-7	Lauryl hydroxysultaine
Green [Circle]	683-10-3	Lauryldimethylbetaine
Green [Circle]	8002-43-5	Lecithins
Green [Circle]	557-59-5	Lignoceric acid
Green [Circle]	60-33-3	Linoleic acid
Green [Circle]	463-40-1	Linolenic acid
Green [Circle]	3097-08-3	Magnesium lauryl sulfate
Half Green [Circle]	557-04-0	Magnesium stearate
Green [Circle]	67806-10-4	Myristamido propylamine oxide
Green [Circle]	59272-84-3	Myristamidopropyl betaine
Green [Circle]	544-64-9	Myristoleic acid
Green [Circle]	27306-79-2	Myristyl alcohol, ethoxylated
Green [Circle]	68608-69-5	N-(3-Alkyl(C12-C15)oxypropyl)-3-iminodipropionic acid, monosodium salt
Green [Circle]	3332-27-2	N,N-Dimethyl-1-tetradecanamine-N-oxide
Green [Circle]	1643-20-5	N,N-Dimethyldodecylamine oxide
Green [Circle]	27252-75-1	n-Octylpolyoxyethylene
Green [Circle]	2687-94-7	N-Octylpyrrolidone
Green [Circle]	124-07-2	Octanoic acid
Half Green [Circle]	26402-26-6	Octanoic acid, monoester with 1,2,3-propanetriol
Green [Circle]	764-71-6	Octanoic acid, potassium salt
Green [Circle]	68815-55-4	Octanoic acid, reaction products with 2-[(2-aminoethyl)amino]ethanol, acrylic acid alkylated (1:2), disodium salts
Green [Circle]	29836-26-8	Octyl-beta-D-glucoside
Green [Circle]	2605-78-9	Octyldimethylamine oxide
Green [Circle]	27593-14-2	Octyldimethylbetaine
Green [Circle]	112-80-1	Oleic acid
Green [Circle]	143-19-1	Oleic acid, sodium salt
Half Green [Circle]	166736-08-9	Oxirane, 2-methyl-, polymer with oxirane, mono(2-propylheptyl) ether
Green [Circle]	64366-70-7	Oxirane, methyl-, polymer with oxirane, mono(2-ethylhexyl) ether
Green [Circle]	57-10-3	Palmitic acid
Green [Circle]	9003-11-6	Poloxalene

Green [Circle]	39354-45-5	Poly(oxy-1,2-ethanediyl), .alpha.-(3-carboxy-1-oxo-3-sulfopropyl)-.omega.-(dodecyloxy)-, disodium salt
Green [Circle]	53563-70-5	Poly(oxy-1,2-ethanediyl), .alpha.-(carboxymethyl)-.omega.-(octyloxy)-
Green [Circle]	26183-52-8	Poly(oxy-1,2-ethanediyl), .alpha.-decyl-.omega.-hydroxy-
Green [Circle]	67762-19-0	Poly(oxy-1,2-ethanediyl), .alpha.-sulfo-.omega.-hydroxy-, C10-16-alkyl ethers, ammonium salts
Green [Circle]	68037-05-8	Poly(oxy-1,2-ethanediyl), .alpha.-sulfo-.omega.-hydroxy-, C6-10-alkyl ethers, ammonium salts
Half Green [Circle]	160875-66-1	Poly(oxy-1,2-ethanediyl), alpha-(2-propylheptyl)-omega-hydroxy-
Green [Circle]	68954-91-6	Poly(oxy-1,2-ethanediyl), alpha-(3-carboxy-1-oxosulfopropyl)-omega-hydroxy-, C10-12-alkyl ethers, disodium salts
Green [Circle]	70750-17-3	Poly(oxy-1,2-ethanediyl), alpha-(carboxymethyl)-omega-hydroxy-, C12-13-alkyl ethers
Green [Circle]	220622-96-8	Poly(oxy-1,2-ethanediyl), alpha-(carboxymethyl)-omega-hydroxy-,C12-14-alkyl ethers
Green [Circle]	109075-72-1	Poly(oxy-1,2-ethanediyl), alpha-butyl-omega-(octyloxy)-
Green [Circle]	501019-91-6	Poly(oxy-1,2-ethanediyl), alpha-hydro-omega-hydroxy-, mono-C8-10-alkyl ethers, ethers with 1,2-dodecanediol (1:1)
Green [Circle]	69011-36-5	Poly(oxy-1,2-ethanediyl), alpha-tridecyl-omega-hydroxy-, branched
Green [Circle]	127036-24-2	Poly(oxy-1,2-ethanediyl), alpha-undecyl-omega-hydroxy-, branched and linear
Green [Circle]	9005-08-7	Polyethylene glycol distearate
Green [Circle]	24938-91-8	Polyethylene glycol mono(tridecyl) ether
Green [Circle]	68585-34-2	Polyethylene glycol mono-C10-16-alkyl ether sulfate sodium salt
Green [Circle]	68891-38-3	Polyethylene glycol mono-C12-14-alkyl ether sulfate sodium salt
Green [Circle]	9004-98-2	Polyethylene glycol monoleyl ether
Green [Circle]	9004-99-3	Polyethylene glycol stearate
Half Green [Circle]	9005-07-6	Polyoxyethylene dioleate
Green [Circle]	9004-96-0	Polyoxyethylene monoleate
Green [Circle]	9005-00-9	Polyoxyethylene monooctadecyl ether
Green [Circle]	34398-01-1	Polyoxyethylene monoundecyl ether
Green [Circle]	9005-70-3	Polyoxyethylene sorbitan trioleate
Green [Circle]	9005-65-6	Polysorbate 80
Green [Circle]	68127-33-3	Potassium acrylinoleate
Green [Circle]	226993-76-6	Potassium babassuate
Green [Circle]	27177-77-1	Potassium dodecylbenzene sulfonate
Half Green [Circle]	17378-36-8	Potassium heptadecanoate
Green [Circle]	3414-89-9	Potassium linoleate
Green [Circle]	13429-27-1	Potassium myristate
Green [Circle]	2624-31-9	Potassium palmitate
Green [Circle]	593-29-3	Potassium palmitoleate
Green [Circle]	910661-93-7	Propanoic acid, 2-hydroxy-, 2-(C10-16-alkyloxy)-1-methyl-2-oxoethyl ester
Green [Circle]	73138-81-5	Quaternary ammonium compounds, bis(hydroxyethyl)methyltallow alkyl, ethoxylated, methyl sulfates (salts)
Green [Circle]	61791-10-4	Quaternary ammonium compounds, coco alkylbis(hydroxyethyl)methyl, ethoxylated, chlorides

Green [Circle]	4016-24-4	Sodium 1-methoxy-1-oxohexadecane-2-sulphonate
Green [Circle]	5324-84-5	Sodium 1-octanesulfonate
Green [Circle]	1984-06-1	Sodium caprylate
Green [Circle]	68187-32-6	Sodium cocoyl glutamate
Green [Circle]	28348-53-0	Sodium cumene sulfonate
Green [Circle]	9004-82-4	Sodium dodecylpoly(oxyethylene) sulfate
Green [Circle]	14960-06-6	Sodium laurimino dipropionate
Green [Circle]	29923-31-7	Sodium lauroyl glutamate
Green [Circle]	13557-75-0	Sodium lauroyl lactylate
Green [Circle]	25155-30-0	Sodium lauryl benzene sulfonate
Green [Circle]	151-21-3	Sodium lauryl sulfate
Green [Circle]	13150-00-0	Sodium lauryl trioxyethylene sulfate
Green [Circle]	822-17-3	Sodium linoleate
Green [Circle]	822-12-8	Sodium myristate
Green [Circle]	30364-51-3	Sodium myristol sarcosinate
Green [Circle]	142-31-4	Sodium octyl sulfate
Green [Circle]	408-35-5	Sodium palmitate
Green [Circle]	25446-78-0	Sodium polyoxyethylene tridecyl sulfate
Green [Circle]	822-16-2	Sodium stearate
Green [Circle]	26248-24-8	Sodium tridecylbenzene sulfonate
Green [Circle]	27636-75-5	Sodium undecylbenzene sulfonate
Green [Circle]	1300-72-7	Sodium xylene sulfonate
Green [Circle]	1338-39-2	Sorbitan monolaurate
Green [Circle]	1338-43-8	Sorbitan monooleate
Green [Circle]	26266-57-9	Sorbitan monopalmitate
Green [Circle]	1338-41-6	Sorbitan monostearate
Green [Circle]	1443994-56-6	Sorbitan oleate decylglucoside crosspolymer
Green [Circle]	8007-43-0	Sorbitan sesquioleate
Green [Circle]	9005-64-5	Sorbitan, monododecanoate, poly(oxy-1,2-ethanediyl) derivs.
Green [Circle]	9005-67-8	Sorbitan, monooctadecanoate, poly(oxy-1,2-ethanediyl) derivs.
Half Green [Circle]	9005-71-4	Sorbitan, trioctadecanoate, poly(oxy-1,2-ethanediyl) derivs.
Green [Circle]	68308-53-2	Soybean oil fatty acids
Green [Circle]	61790-16-7	Soybean oil, sulfated, sodium salt
Green [Circle]	57-11-4	Stearic acid
Green [Circle]	68037-49-0	Sulfonic acids, C10-18-alkane, sodium salts
Green [Circle]	68439-57-6	Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts
Green [Circle]	68608-26-4	Sulfonic acids, petroleum, sodium salts
Green [Circle]	68081-96-9	Sulfuric acid, mono-C10-16-alkyl esters, ammonium salts
Green [Circle]	68585-47-7	Sulfuric acid, mono-C10-16-alkyl esters, sodium salts
Green [Circle]	85586-07-8	Sulfuric acid, mono-C12-14 alkyl esters, sodium salts
Green [Circle]	68955-19-1	Sulfuric acid, mono-C12-18-alkyl esters, sodium salts
Green [Circle]	68955-20-4	Sulfuric acid, mono-C16-18-alkyl esters, sodium salts
Green [Circle]	142-87-0	Sulfuric acid, monodecyl ester, sodium salt (1:1)
Green [Circle]	69669-39-2	Sunflower oil, potassium salt
Green [Circle]	544-63-8	Tetradecanoic acid
Green [Circle]	98283-67-1	Undecyl-D-glucoside
Uncategorized		
Green [Circle]	85507-69-3	Aloe barbadensis extract

Green [Circle]	94349-62-9	Aloe barbadensis mill., extract
Green [Circle]	8001-97-6	Aloe, pharmaceutical
Green [Circle]	134134-86-4	Avena sativa kernel flour
Green [Circle]	8012-89-3	Beeswax
Green [Circle]	8015-86-9	Carnauba wax
Green [Circle]	68442-85-3	Cellulose, regenerated
Green [Circle]	7585-39-9	Cyclodextrin
Yellow [Triangle]	3734-33-6	Denatonium benzoate
Green [Circle]	624-03-3	Ethylene glycol dipalmitate
Green [Circle]	68410-45-7	Gelatins, hydrolyzates
Green [Circle]	9034-32-6	Hemicellulose
Half Green [Circle]	111-14-8	Heptanoic acid
Green [Circle]	128446-33-3	Hydroxypropyl-a-cyclodextrin
Green [Circle]	9005-53-2	Lignin
Green [Circle]	7727-37-9	Nitrogen
Half Green [Circle]	112-05-0	Nonanoic acid
Green [Circle]	64742-43-4	Paraffin waxes, petroleum, clay-treated
Green [Circle]	64742-51-4	Paraffin waxes, petroleum, hydrotreated
Green [Circle]	65996-61-4	Pulp, cellulose
Green [Circle]	77098-13-6	Soy protein isolate, sodium salt
Green [Circle]	57-13-6	Urea
Green [Circle]	506-89-8	Urea, monohydrochloride
Yellow [Triangle]	13040-19-2	Zinc ricinoleate