"Inert" Ingredients Used in Organic Production

Terry Shistar, PhD

A Beyond Pesticides Report





he 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. 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-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/cgibin/sis/search2/f?./temp/~50l4VG: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.

²⁰ ToxNet. Hazardous Substances Database (HSDB), Methyl Isobutyl Ketone. http://toxnet.nlm.nih.gov/cgibin/sis/search2/f?./temp/~50l4VG: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 (bluegreen 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/cgibin/sis/search2/f?./temp/~50l4VG: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

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

²⁵ 40 CFR §152.25.

8



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. 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. 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."

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(I) 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.

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	EPA uses SCIL criteria; NOSB can address gaps
additional OFPA criteria.	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	Any substance on any of the SCIL sublists is
of the SCIL, "Inert ingredients for use in	an "inert" allowable for use in organic
pesticides in organic production," which	production,
would start with 126 known to be used in	
organic production with additions by	
petition.	
Allows only "inerts" formerly on List 4A or 4B,	Materials on SCIL include active ingredients
a few on List 3, or petitioned.	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	There is no process for the public to initiate
and comment, for adding and removing	additions or subtractions, and no public
"inerts" from the National List.	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. 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. 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.

³² TAP review of BHT (lines 348-351).

³³ Safety Review of Checkmate Chemicals, by Don't Spray California.

 $[\]underline{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-

 $[\]underline{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 Production³⁷ 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	х*						χ+	
Isopropanol		Х								Х	
Ammonium carbonate											
Aqueous potassium											
silicate											
Boric acid				Х		х					
Chlorhexidine	Х					Х					
Chlorine materials: calcium hypochlorite, chlorine dioxide, sodium hypochlorite	х			х		х				Х	
Copper sulfate				Х	Х	Х			Х	Х	
Coppers, fixed: copper hydroxide, copper							х			х	

³⁷ Pesticidal materials only, from organic regulations at §205.601 and §205.603.

³⁸ Databases distinguish ethanol in alcoholic beverages (*) from other uses (+).



PESTICIPES											
oxide, copper											
oxychloride											
Elemental sulfur						Х		х			
Ethylene gas	х			Х						Х	
Ferric phosphate											
Formic acid	Х				Х	Х				Х	
Herbicides, soap-based										Х	
Hydrated lime	х									х	
Hydrogen peroxide						Х				Х	
Iodine	х									Х	
Lime sulfur										х	Х
Mineral oil										Х	Х
Oils, horticultural			Х								Х
Ozone gas	х			Х		Х				Х	
Fenbendazole	N/A*	N/A									
Ivermectin										х	
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	Х									Х	
acid											
Pheromones											
Phosphoric acid										Х	
Potassium bicarbonate										Х	
Soap-based										х	
algicide/demossers.											
Soaps, ammonium											Х
Soaps, insecticidal											Х
Sodium carbonate											
peroxyhydrate											
Sticky traps/barriers											
Sucrose octanoate											
esters											
Vitamin D₃											
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



PESTICIPES	1	1	1	1	1	1	1	1		ı	1
	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)										х	
1-Butanol (CAS# 71-36-3)		Х								х	
Ethanol (CAS# 64-17-5)			x*39	х*						χ+	
Alkyl alkoxylates											
Alcohols, C11-15-secondary, ethoxylated (CAS# 68131-40-8)	х									х	
Alcohols, C12-15, ethoxylated propoxylated (CAS# 68551-13-3)										х	
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 hydroomegahydroxy-, 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)	х									х	
Polyoxyethylene mono(cis-9-octadecenyl) (CAS# 9004-98-2)										х	
Alkylphenol ethoxylates											
p- Nonylphenol, ethoxylated (CAS# 26027-38-3)				х		х	х			Х	
Polyoxyethylene (1,1,3,3- tetramethylbutyl)phenyl ether (CAS# 9036-19-5)							х			х	
Polyoxyethylene dodecylphenol (CAS# 9014-92-0)											
Polyoxyethylene nonylphenol (CAS# 9016-45-9)				х			х			х	
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 (+).



PESTICIPES	1	ı	ı	1	ı	ı	ı	ı	ı	ı	ı
EDTA and salts											
Ethylenediaminetetraacetic acid				х		х				х	
(EDTA) (CAS# 60-00-4)											
Ethylenediaminetetraacetic acid				х		х				х	
(EDTA), tetrasodium (CAS# 64-02-8)											
Fatty acid ethoxylates											
Polyoxyethylene monolaurate (CAS#	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9004-81-3)											
Polyoxyethylene monooctadecyl ether (CAS# 9005-00-9)										Х	
Polyoxyethylene monooleate (CAS# 9004-96-0)											
Polyoxyethylene monostearate										,,	
(CAS# 9004-99-3)										Х	
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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Coconut Oil Fatty Acid (CAS# 66070-	,	,	•		,	,	,	,	,		
87-9)											
Potassium coconut oil soap (CAS# 61789-30-8)											х
Potassium salts of fatty acids (C8-18											Х
and C18 unsatd.) (CAS# 67701-09-1)											
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)	Х										
Polyvinylpyrrolidone (CAS# 9003-39-8)					х					Х	
Rosin, maleated, polymer with	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
pentaerythritol (CAS# 68333-69-7)											
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)										х	
Ammonium chloride (CAS# 12125-	x				х	х				х	
02-9)	^				^	^				^	
02-31	1	<u> </u>	<u> </u>		<u> </u>						



PESTICIPES											
Ammonium hydroxide (CAS# 1336- 21-6)	х									х	
Ammonium phosphate (monobasic)	х									х	
(CAS# 7722-76-1)											
Calcium chloride (CAS# 10043-52-4)										х	
Calcium hydroxide (CAS# 1305-62-0)	х									х	
Calcium oxide (CAS# 1305-78-8)										х	
Carbonic acid, dipotassium salt	х									х	
(CAS# 584-08-7)											
Carbonic acid, disodium salt (CAS#										x	
497-19-8)											
Diammonium phosphate (CAS#										X	
7783-28-0)											
Diphosphoric acid, tetrasodium salt										X	
(CAS# 7722-88-5)											
Disodium phosphate (CAS# 7558-79-										X	
4)											
Hydrogen chloride (CAS# 7647-01-0)	Х					Х				Х	
Phosphoric acid (CAS# 7664-38-2)										Х	
Potassium hydroxide (CAS# 1310-58-	Х									Х	
Detective phosphate (dibasia) (CASH										.,	
Potassium phosphate (dibasic) (CAS# 7758-11-4)										Х	
Potassium phosphate, monobasic										Х	
(CAS# 7778-77-0)										^	
Silicic acid (H2SiO3), disodium salt						х				Х	
(CAS# 6834-92-0)											
Sodium acid pyrophosphate (CAS#											
7758-16-9)											
Sodium tripolyphosphate (CAS#	х					Х				x	
7758-29-4)											
Sulfuric acid (CAS# 7664-93-9)	Х		Х							х	
Tricalcium phosphate (CAS# 7758-										x	
87-4)											
Nonsynthetic											
Ascophyllum nodosum, ext (CAS# 84775-78-0)	N/A	N/A	N/A								
Clay (CAS# 70131-50-9)	N/A	N/A	N/A								
d- Limonene (CAS# 5989-27-5)	IN/A	IN/A	IN/A	IN/A	IN/A	X	IN/A	IN/A	IN/A	X	IN/A
Milk, hydrolyzed (CAS# 68514-61-4)	N/A	N/A	N/A								
Oil, rosemary (CAS# 8000-25-7)	IN/ A	IN/A	14/ 🖯	IN/A	IN/A	14/ 🗥	11/7	11/7	11/7	X	IN/A
Orange oil (CAS# 8008-57-9)										^	
Pine oil (CAS# 8002-09-3)	х	х				х				Х	
Pyrophyllite (CAS# 12269-78-2)	N/A	N/A	N/A								
Sweet orange peel tincture (CAS#	N/A	N/A	N/A								
8028-48-6)	'''	'','`	'','`	'','`	'','`	'','	'','`	'','`	'','`	,,,	,,,
Talc (CAS# 14807-96-6)			х								
Wheat flour (CAS# 130498-22-5)	N/A	N/A	N/A								
Whey (CAS# 68608-58-2)	N/A	N/A	N/A								
Organic acids and salts	-,	-,	-,	-,	-,	-,	-,	-,	-,	,	,
Acetic acid (CAS# 64-19-7)	х					х		Х		Х	
	1	1	L	1	L		l		l		l



Octanoic acid (CAS# 124-07-2)										х	х
Propanoic acid (CAS# 79-09-4)	х									X	X
Polyalkoxylates and	^									^	^
polyalkoxylated alkyl ethers											
Oxirane, methyl-, polymer with	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
oxirane, metriyi-, polymer with oxirane, mono[2-(2-butoxyethoxy)	IN/A	IN/A	IN/A	IN/A	IN/A	IN/A	IN/A	IN/A	IN/A	IN/A	IN/A
ethyl] ether (CAS# 85637-75-8)											
						.,				.,	
Polyethylene glycol (CAS# 25322-68-						Х				Х	
3)	NI/A	NI/A	NI/A	NI/A	NI/A	NI/A	NI/A	NI/A	NI/A	NI/A	NI/A
Polyethylene glycol ether with 1,4-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
diisobutyl-1,4-dimethylbutynediol											
(2:1) (CAS# 9014-85-1)	N1 / A	N1 / A	N1 / A	N1 / A	N1 / A	N1 / A					
Polyethylene-polypropylene glycol,	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
monobutyl ether (CAS# 9038-95-3)											
Polyoxyethylene-polyoxypropylene										Х	
copolymer (CAS# 9003-11-6)											
Polysorbates											
Polyoxyethylene sorbitan										х	
monolaurate (CAS# 9005-64-5)											
Polyoxyethylene sorbitan										х	
monooleate (CAS# 9005-65-6)											
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)										х	
Butylated hydroxytoluene (BHT)										х	
(CAS# 128-37-0)											
Calcium propionate (CAS# 4075-81-											
4)											
Ethoxyquin (CAS# 91-53-2)					Х	Х				х	
Methyl p-hydroxybenzoate (CAS#						Х				х	
99-76-3)											
Propyl p-hydroxybenzoate (CAS# 94-						Х	Х			х	
13-3)											
Sorbic acid (CAS# 110-44-1)										Х	
Tall oil and terpene derivatives											
Copolymer of alpha- and beta-											
pinene (CAS# 31393-98-3)											
Homopolymer of alpha-pinene (CAS#	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
25766-18-1)	'''	'''	'','`	'''	'','	'','`	'','`	'','	'','	''''	,,,
Homopolymer of beta-pinene (CAS#											
25719-60-2)											
Tall oil (CAS# 8002-26-4)											
Terpenes and terpenoids, terpentine	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
oil, alpha-pinene fraction	IN/A	14/74	11/14	14/74	11/14	11/14	11/14	14/74	14/74	11/7	IN/A
polymerized (CAS# 70750-57-1)											
polymenzeu (CAS# /U/SU-S/-1)	1					<u> </u>		<u> </u>	<u> </u>	<u> </u>	<u> </u>



The state of the s											
TBD											
Hydroxyethylidene-1,1-diphosphonic	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
acid (CAS# 2809-21-4)											
1,1-difluoroethane (CAS# 75-37-6)	Х					Х					
2-(2-hydroxy-3-tert-butyl-5-											
methylphenyl)-5-											
chlorobenzotriazole (CAS# 3896-11-											
5)											
2,2-hydroxy-4-n-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	х	N/A
octyloxybenzophenone (CAS# 1843-											
05-6)											
Aluminum sulfate (CAS# 10043-01-3)		Х								х	
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-										х	
12-6)											
Chitosan (CAS# 9012-76-4)										х	
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#										х	
151-21-3)											
Ethylenediamine-N,N'-disuccinic acid	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
(EDDS) (CAS# 20846-91-7)					•			•	•	,	
Lignosulfonic acid, calcium salt (CAS#											
8061-52-7)											
Lignosulfonic acid, sodium salt (CAS#										х	
8061-51-6)											
Manganese sulfate monohydrate	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
(CAS# 10034-96-5)		'	'	'	,	'	'	,	,	,	,
N,N-Bis(2-hydroxyethyl)(coconut oil	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
alkyl)amine (CAS# 61791-31-9)		'	'	'	,	'	'	,	,	,	,
Naphthalenesulfonic acid, polymer	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	х	N/A
with formaldehyde, sodium salt	,	'	'	'		'	'		,		,
(CAS# 9084-06-4)											
Oxirane, methyl-, polymer with	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
oxirane, mono[3-[1,3,3,3-	,	′	′	′	'	′	′	'	,	′	,
tetramethyl-1-											
[(trimethylsilyl)oxy]disiloxanyl]propyl											
] ether (CAS# 134180-76-0)											
Oxirane, methyl-, polymer with	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
oxirane, mono-2-propenyl ether	,	,	,	,	,	,	,	,	,	,	,
(CAS# 9041-33-2)											
Poly(oxy-1,2-ethanediyl),.alpha	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
undecylomegahydroxy-, branched	'''	'','`	'','`	'','`	'','`	'','`	'','`	'','`	'','	'','	,,,
and linear (CAS# 127036-24-2)											
Poly(oxy-1,2-ethanediyloxycarbonyl-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,4-phenylenecarbonyl (CAS# 25038-	11/7	'', '	'', '	'', '	'''	'', '	'', '	'', '	'','	17/7	'*/ ^
59-9)											
Polyoxyethylene tristyrylphenol	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
phosphate, potassium salt (CAS#	14/7	14/7	14/7	14/7	14/7	14/7	14/7	14/7	14/7	11/7	14/74
163436-84-8)											
103430-04-0]											



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

<u>List 1</u>: 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.

<u>List 2</u>: 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								
	Green	Half Green	Yellow	Gray	Not on	Total		
List	Circle	Circle	Triangle	Square	SCIL	S		
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 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.
 - 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 <u>active</u> 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

CAS 62-54-4	PREFIX NAME Acetic acid, calcium salt	List No. 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
0000 04 4	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	4.0
61700 00 0	CFR 180.950(a) Cork	4A 4A
61789-98-8 68525-86-0	Corn flour	4A 4A
8001-30-7	Corn oil	4A 4A
8029-43-4	Corn syrup	4A 4A
68131-37-3	Corn syrup solids	4A 4A
9005-25-8	Cornstarch	4A
9003-23-0	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
	D-	
63-42-3	(+)- 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 37244-96-5 7727-37-9	Mullite Nepheline syenite Nitrogen	4A 4A 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 (9Cl)	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, 12	2R4A
49553-76-6	9- Octadecenoic acid, ester with 1,2,3-propanetriol	4A
71012-10-7	9- Octadecenoic acid, monoester with tetraglycerol	4A
	Octanoic acid, diester iwht 1,2,3-propanetriol	
36354-80-0	(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
	Octodecanoic acid, monoester with 1,2,3-propanetriol	
31566-31-1	(9CI)	4A
25637-84-7	9- Octodecenoic acid (9Z)-, diester with 1,2,3-propanetriol (9	C4A
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 4A
68553-81-1 9006-04-6	Rice bran oil Rubber	4A 4A
3000-04-0	IZANDEI	411

8001-23-8	Safflower oil Sawdust	4A 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 (9	OCI 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

CAS 64-19-7	PREFIX	NAME Acetic acid	4B
04-19-7			4D
26337-35-9		Acetic acid ethenyl ester, polymer with carbon monoxide and ethene	4B
		Acetic acid ethenyl ester, polymer with ethanol and alpha-	
137091-12-4		2-propenyl-omega-hydroxypoly(oxy-1,2-ethandiyl) Acetic acid, [(5-chloro-8-quinolinyl)oxy]-, 1-methylhexyl	4B
99607-70-2		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
		Acrylic acid butyl ester, polymer with methacrylic acid,	
25987-66-0		methyl methacrylate and styrene	4B
24968-79-4		Acrylic acid methyl ester, polymer with acrylonitrile	4B
		Acrylic acid methyl ester, polymer with acrylonitrile and	
27012-62-0		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
		Acrylic acid, polymer with acrylonitrile, ethyl acrylate and N-	
26604-01-3		(hydroxymethyl)acrylamide	4B
		Acrylic acid, polymer with ethyl acrylate and	
25135-39-1		methylmethacrylate	4B
		Acrylic acid, styrene, .alphamethyl styrene copolymer,	
89678-90-0		ammonium salt	4B
52831-04-6		Acrylic acid-alpha-methylstyrene-styrene copolymer	4B
		Acrylic acid-sodium acrylate-sodium-2-	
97953-25-8		methylpropanesulfonate copolymer	4B
27756-15-6		Acrylic acid-stearyl methacrylate copolymer	4B
9003-18-3		Acrylonitrilebutadiene copolymer	4B
		Alanine,N-(2,4-dihydroxy-3,3-dimethyl-1-oxobutyl)-,	
137-08-6	beta-	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
		Alcohols, C8-10, ethoxylated, monoether with sulfuric	
68891-29-2		acid, ammonium salt	4B
68920-69-4		Alcohols, C9-11, propoxylated	4B

154518-36-2 97043-91-9 68527-08-2 142-03-0	Alcohols, C9-11-iso-, C10-rich, ethoxylated propoxylated Alcohols, C9-16, ethoxylated Alkenes, C>10 .alpha, polymd. Aluminum acetate, basic	4B 4B 4B 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
60011 22 0	Benzene, diethenyl-, polymer with etenylbenzene and	4D
69011-22-9	ethenylethylbenzene, sulfonated, sodium salts	4B
60000 00 2	Benzene, ethenyl-, polymer with 2,5-furandione, 2-	4B
68890-80-2	butoxyethyl ester, ammonium salt Benzene, ethenyl-, polymer with 2-methyl-1,3-butadiene,	4D
68648-89-5	hydrogenated	4B
65-85-0	Benzoic acid	4B
05-65-0	Benzopyran-6-ol,3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-	
10191-41-0	2H-1- trimethyltridecyl)-	4B
10131 41 0	Benzyl ether of 1,1,3,3-tetramethylbutylphenoxypolyethoxy	
60864-33-7	ethanol	4B
00004 33 7	Ciriano	70
61791-31-9	N,N- Bis(2-hydroxyethyl)(coconut oil alkyl)amine Bis(6-isocyanatohexyl)-2H-1,3,5-oxadiazine-2,4,6-	4B
87823-33-4	3,5- (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
-	Butanediol, copolymer with 4,4'-diphenylmethane	
9018-04-6	1,4- 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 Butenedioic acid (Z)_, polymer with ethenol and ethenyl	4B
139871-83-3	2- acetate, sodium salt Butyl acrylate-2-ethylhexyl acrylate-2-hydroxyethyl	4B
70549-17-6	acrylate-styrene copolymer Butyl acrylate-ethyl acrylate-methacrylic acid-methyl	4B
63744-68-3	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 4B
68187-71-3 15974-07-9	Calcium salts of tall-oil fatty acids Calcium zinc phosphate (CaZn2(PO4)2)	4B 4B
8028-89-5	Caramel	4B 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
	Castor oil, dehydrated, polymer with p-tert-butylbenzoic	
68071-54-5	acid, glycerol and phthalic anhydride	4B
61791-12-6	Castor oil, ethoxylated	4B
	Castor oil, hydrogenated, polymer with adipic acid,	45
125303-89-1	ethylenediamine and 12-hydroxyoctadecanoic acid	4B
71000 26 F	Castor oil, maleic anhydride, and polyethylene glycol	4D
71820-36-5	copolymer Castor oil, oxidized	4B 4B
68187-84-8 68187-76-8	Castor oil, oxidized Castor oil, sulfated, sodium salt	4B 4B
	Castor on, Sunateu, Soulum Sait	40
8023-84-		
5	Catnip	4B
65997-15-1	Cement, portland, chemicals	4B
36653-82-4	Cetyl actorocto	4B
29710-31-4	Cetyl octanoate	4B
8021-99-6 97765-70-3	Charcoal, bone Cheese	4B 4B
9012-76-4	Chitosan	4B 4B
64754-90-1	Chlorinated polyethylene	4B
31131301	Siliotification polyotiffication	טי

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

	Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-	
	oxo-2-propenyl)oxy]-, chloride, polymer with	
36347-52-1	methyl 2-methyl-2-propenoate	4E
64-17-5	Ethanol	4E
9003-09-2	Ethene, methoxy-, homopolymer	4E
91-53-2	Ethoxyquin	4E
141-78-6	Ethyl acetate	4E
25212-88-8	Ethyl acrylate-methacrylic acid copolymer	4E
73637-19-1	Ethyldiaminetetraacetic acid (EDTA) disodium copper (II)	sa4E
73637-20-4	Ethyldiaminetetraacetic acid (EDTA) disodium manganese	
73513-47-0	Ethyldiaminetetraacetic acid (EDTA) disodium zinc salt, di	
15708-41-5	Ethyldiaminetetraacetic acid (EDTA) iron(III) sodium salt	4E
17421-79-3	Ethyldiaminetetraacetic acid (EDTA) monosodium salt	4E
65501-24-8	Ethyldiaminetetraacetic acid (EDTA) tripotassium salt, dih	
	Ethylene oxide-propylene oxide copolymer	,
26316-40-5	ethylenediamine ether	4E
24937-78-8	Ethylene, polymer with vinyl acetate	4E
139-33-3	Ethylenediaminetetraacetatic acid (EDTA), disodium salt	4E
150-38-9	Ethylenediaminetetraacetatic acid (EDTA), trisodium salt	4E
5964-35-2	Ethylenediaminetetraacetec acid (EDTA), tetrapotassium	
60-00-4	Ethylenediaminetetraacetic acid (EDTA)	4E
61916-40-3	Ethylenediaminetetraacetic acid (EDTA) disodium copper(
14729-89-6	Ethylenediaminetetraacetic acid (EDTA) disodium iron(II)	•
15375-84-5	Ethylenediaminetetraacetic acid (EDTA) disodium mangar	
62-33-9	Ethylenediaminetetraacetic acid (EDTA), calcium disodiun	
12276-01-6	Ethylenediaminetetraacetic acid (EDTA), copper (II) salt	4E
20824-56-0	Ethylenediaminetetraacetic acid (EDTA), diammonium sal	
14025-15-1	Ethylenediaminetetraacetic acid (EDTA), disodium copper	
6381-92-6	Ethylenediaminetetraacetic acid (EDTA), disodium salt, dil	•
14025-21-9	Ethylenediaminetetraacetic acid (EDTA), disodium zinc sa	•
7379-27-3	Ethylenediaminetetraacetic acid (EDTA), potassium salt	4E
7379-28-4	Ethylenediaminetetraacetic acid (EDTA), sodium salt	4E
64-02-8	Ethylenediaminetetraacetic acid (EDTA), tetrasodium salt	4E
67401-50-7	Ethylenediaminetetraacetic acid (EDTA), tetrasodium salt,	t 4E
17572-97-3	Ethylenediaminetetraacetic acid (EDTA), tripotassium salt	
17099-81-9	Ethylenediaminetetraacteic acid (EDTA), iron(III) salt	4E
67762-38-3	Fatty acids, C16-18 & C18-unsatd., Me esters	4E
67701-08-0	Fatty acids, C16-18 and C18-unsatd	4E
	Fatty acids, C18-unsatd., trimers, reaction products with	
162627-18-1	triethylenetetramine	4E
68525-90-6	Fatty acids, C8-18, esters with sorbitol, ethoxylated	4E
	Fatty acids, coco, esters with polyethylene glycol ether	
68553-02-6	with glycerol (3:1)	4E
68154-33-6	Fatty acids, coco, esters with sorbitan, ethoxylated-	4E
68919-53-9	Fatty acids, soya, Me esters	4E
	Fatty acids, tall-oil, C12-15-alkyl esters, sulfated, sodium	
68424-50-0	salts	4E
61790-90-7	Fatty acids, tall-oil, hexaester with sorbitol, ethoxylated	4E
	Fatty acids, tall-oil, mixed esters with glycerol and	
68650-09-9	polyethylene glycol	4E

61790-92-9	Fatty acids, tall-oil, pentaester with sorbitol, ethoxylated Fatty acids, tall-oil, polymer with ethylene glycol,	4B
67761-98-2	pentaerythritol, and phthalic anhydride Fatty acids, tall-oil, polymers with bisphenol A and	4B
66070-75-5	epichlorohydrin Fatty acids, tall-oil, polymers with bisphenol A,	4B
68605-57-2	epichlorohydrin, rosin and tung oil Fatty acids, tall-oil, polymers with isophthalic acid,	4B
68413-17-2	pentaerythritol and walnut oil Fatty acids, tall-oil, polymers with pentaerythritol, phthalic	4B
68038-31-3	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
07 10 7	Furandione, polymer with ethylbenzene, sulfonated,	
68037-40-1	2,5- 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
4400 02 4	b Glacoffic acia, zine complex	70
29836-26-8	(beta-D- Glucoopyranoside, octyl	4B
	(alpha-	
29781-80-4	· ·	4B
29701-00-4	D- Glucopyranoside, octyl	4D
59947-99-8	beta-D- Glucoside, decyl	4B
54549-23-4 100403-	D- Glucoside, octyl	4B
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
	3., 22	-

100403-		
40-5	Glycerides, tallow, reaction products with sucrose	4B
100403-	Ciyoonace, tallett, reaction products that eached	
	01 - 21	40
41-6	Glycerides, vegetable-oil, reaction products with sucrose	4B
102-76-1	Glyceryl triacetate	4B
139-44-6	Glyceryl tris(12-hydroxystearate)	4B
	Glycine, N-(carboxymethyl)-N-[2-	
19019-43-3	[(carboxymethyl)amino]ethyl]-, trisodium salt	4B
	Glycine, N-methyl-, N-coco acyl derivs. (CA INDEX	
68411-97-2	NAME) (Pending)	4B
	Glycine, N-methyl-N-(1-oxo-9-octadecenyl)-, sodium salt	
3624-77-9	(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
1440 00 1	Tichum	טד
111-70-6 1	- Heptanol	4B
	Hexanedioic acid, polymer with 1,4-butanediol and 1,2-	
68511-11-5	propanediol, didodecanoate	4B
	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-	
125826-44-0	diethylethanamine	4B
120020 110	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 .alphahydro.omegahydroxypoly(oxy-	
	, , , , , , , ,	
	1,2-ethanediyl)	
114133-44-7		4B
	- Hexanol	4B
	- Hexen-1-ol, (Z)-	4B
	- Hexene, polymer with ethene	4B
7647-01-0	Hydrogen chloride	4B
2809-21-4 1	- Hydroxyethylidene-1,1-diphosphonic acid	4B
	- Hydroxystearic acid-polyethylene glycol copolymer	4B

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

25153-40-6	Methyl vinyl ether-maleic acid copolymer Methyl vinyl ether-maleic acid copolymer calcium sodium	4B
62386-95-2	salt	4B
02300-93-2	Milk (raw and processed forms)	4B
68514-61-4	Milk, hydrolyzed	4B
00014-01-4		40
9084-06-4	Naphthalenesulfonic acid, polymer with formaldehyde, sodium salt	4B
58846-77-8		4B
	N-Decyl glucoside Nitric acid	
7697-37-2		4B
	Nitrogen fixing bacteria	4B
26027-38-3	p- Nonylphenol, ethoxylated	4B
9081-17-8	Nonylphenol, ethoxylated, monoether with sulfuric acid	4B
0001 17 0	Nonylphenol, ethoxylated, monoether with sulfuric acid,	
9014-90-8	sodium salt	4B
0011000	Nonylphenol, ethoxylated, monoether with sulfuric acid,	
57451-03-3	triethanolamine salt	4B
07 101 00 0	mornariora mile dan	
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
	Octadecanoic acid, 12-hydroxy-, homopolymer,	
58128-22-6	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 68441-17-8 61725-89-1 39362-51-1 9038-29-3	1- Oxa-4-azaspiro[4.5]decane, 4-(dichloroacetyl)- Oxidized polyethylene Oxirane methyl-, polymer with oxirane, tridecyl ether Oxirane, methyl-, polymer with oxirane, acetate Oxirane, methyl-, polymer with oxirane, decyl ether	4B 4B 4B 4B 4B
68585-15-9	Oxirane, methyl, polymer with oxirane, mono C6-C10 alkyl ethers, phosphates Oxirane, methyl-, polymer with oxirane, mono[2-(2-butoxyethoxy) ethyl] ether	4B
85637-75-8		4B
134180-76-0	Oxirane, methyl-, polymer with oxirane, mono[3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]disiloxanyl]propyl] ether Oxirane, methyl-, polymer with oxirane, mono-2-propenyl	4B
9041-33-2	ether Oxirane, methyl-, polymer with oxirane, monoacetate, 2-	4B
56090-69-8	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
	Poly(oxy-1,2-ethandiyl),.alphaacetylomega[3-{1,3,3,3-	
125997-17-3	tetramethyl-1-[(trimethylsilyl)oxy]disiloxanyl]propoxy)-	4B
	Poly(oxy-1,2-ethanediyl), .alphahydro omegahydroxy-	
68908-64-5	, mono-C10-12-alkyl ethers, phosphates	4B
00004 40 5	Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.'-[[methyl[3-	45
68601-19-5	(tridecyloxy)propyl]imino]di-2,1-ethanediyl	4B
	Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.'-	
70050 00 5	phosphinicobis[.omegahydroxy-, di-C13-15-alkyl ethers,	40
73050-08-5	sodium salts	4B

07074 07 0	Poly(oxy-1,2-ethanediyl), .alpha3-[1,3,3,3-tetramethyl-1-	40
67674-67-3	[(trimethylsilyl)oxy]disiloxanyl]propyl]-omegahydroxy-	4B
143819-63-0	Poly(oxy-1,2-ethanediyl), .alphahydroomegahydroxy-, monoether with (hydroxymethyl)decane	4B
143019-03-0	Poly(oxy-1,2-ethanediyl), .alphasulfoomega[tris(1-	40
119432-41-6	phenylethyl)phenoxy]- ammonium salt	4B
110102 11 0	Poly(oxy-1,2-ethanediyl), alpha-hydro-omega-hydroxy-,	
59800-21-4	ether with D-glucitol (6:1), (z)-9-octadecenoate	4B
	Poly(oxy-1,2-ethanediyl), alpha-hydro-omega-hydroxy-	
68130-47-2	mono-C8-10-alkyl ethers, phosphates	4B
	Poly(oxy-1,2-ethanediyl), alpha-isohexadecyl-omega-	
69364-63-2	hydroxy-	4B
	Poly(oxy-1,2-ethanediyl), alpha-isotridecyl-omega-hydroxy-	
73038-25-2	, phosphate	4B
	Poly(oxy-1,2-ethanediyl), alpha-methyl-omega-	
27252-80-8	(2-propenyloxy)- (CA INDEX NAME)	4B
	Poly(oxy-1,2-ethanediyl), alpha-methyl-omega-	
	[3-[1,3,3,3-tetramethyl-1-	
	[(trimethylsilyl)oxy]disiloxanyl]propoxy]-(2-	
27306-78-1	propenyloxy)-	4B
	Poly(oxy-1,2-ethanediyl),.alpha	
	(butoxyhydroxyphosphinyl)omegahydroxy-,C13-15-alkyl	
73050-07-4	ethers,sodium salts	4B
	Poly(oxy-1,2-ethanediyl),.alpha2-propenylomega	
27274-31-3	hydroxy-	4B
	Poly(oxy-1,2-ethanediyl),.alphahydroomegahydroxy-,	
78330-24-2	mono-C11-14-isoalkyl ethers, C13-rich, phosphates	4B
70000 24 2	Poly(oxy-1,2-ethanediyl),.alphaphosphonoomega	70
73050-09-6	hydroxy-,C13-15-alkyl ethers, disodium salts	4B
	Poly(oxy-1,2-ethanediyl),.alphaundecylomegahydroxy-	
127036-24-2	, branched and linear	4B
	Poly(oxy-1,2-ethanediyloxycarbonyl-1,4-phenyleneca	
25038-59-9	rbonyl	4B
56388-96-6	Poly(oxyethylene)tridecylacetic acid	4B
400000 00 7	Poly(oxyethylene/oxypropylene) monoalkyl(C6-C10)ether	4D
102900-02-7 63231-81-2	sodium fumarate adduct	4B 4B
27937-16-4	Poly(vinylpyrrolidone-1-hexadecene) Poly[imino(1-oxo-1,12-dodecanediyl)]	4B
21931-10-4	Poly[oxy(methyl-1,2-ethanediyl)], alpha-(methylphenyl)-	40
9064-13-5	omega-hydroxy-	4B
0001100	Poly[oxy(methyl-1,2-ethanediyl)],.alpha(1-oxopropyl)-	
74775-06-7	.omega(tetradecyloxy)-	4B
	- ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	
	Poly[oxy(methyl-1,2-ethanediyl)],.alpha[2-[bis(2-	
	hydroxyethyl)amino]propyl]omegahydroxy-, ether	
	hydroxyethyl)amino]propyl]omegahydroxy-, ether with.alphahydroomegahydroxypoly(oxy-1,2-	
176022-82-5	hydroxyethyl)amino]propyl]omegahydroxy-, ether with.alphahydroomegahydroxypoly(oxy-1,2-ethanediyl) (1:2), mono-C12-16-alkyl ethers	4B
9003-05-8	hydroxyethyl)amino]propyl]omegahydroxy-, ether with.alphahydroomegahydroxypoly(oxy-1,2-ethanediyl) (1:2), mono-C12-16-alkyl ethers Polyacrylamide	4B
	hydroxyethyl)amino]propyl]omegahydroxy-, ether with.alphahydroomegahydroxypoly(oxy-1,2-ethanediyl) (1:2), mono-C12-16-alkyl ethers	

0044.05.4	Polyethylene glycol ether with 1,4-diisobutyl-1,4-	4D
9014-85-1	dimethylbutynediol (2:1)	4B
41928-09-0	Polyethylene glycol ether with 2,2'-methylenebis(4-(tert-	4B
41920-09-0	octyl)phenol) (2:1)	4D
60874-89-7	Polyethylene glycol ether with methylenebis(diamylphenol)	4B
	Polyethylene glycol hexaether with sorbitol, diester with	
55069-68-6	dodecanoic and oleic acids	4B
99734-09-5	Polyethylene glycol mono(tristyrylphenyl)ether	4B
	Polyethylene glycol nonylphenyl ether phosphate	
59139-23-0	ethanolamine salt	4B
	Polyethylene glycol nonylphenyl ether phosphate	
67922-57-0	magnesium salt	4B
	Polyethylene glycol nonylphenyl ether phosphate	
52503-15-8	potassium salt	4B
	Polyethylene glycol-polyisobutenyl anhydride-tall oil fatty	
68650-28-2	acid copolymer	4B
	Polyethylene glycol-polyisobutenyl anhydride-tall oil fatty	
132175-04-3	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
00010 01 0	Polymer of n-butyl acrylate, methyl methacryalate,	70
	methacrylic acid and aminopropyl methacrylate	4B
	Polymer of vinyl acetate, n-butyl acrylate, vinyl chloride,	
30938-41-1	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
	Polyphosphoric acids, esters with polyethylene glycol	
68458-49-1	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
	Propanesulfonic acid, 2-hydroxy-3-(2-propenyloxy)-	
78266-09-8	1- ,monosodium salt, polymer with 2-propenoic acid	4B
	Propanetricarboxylic acid, 2-hydroxy-, iron (3+) salt (1:1),	
17217-76-4	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
	Propenenitrile, polymer with 1,2,4-triethenylcyclohexane,	
109961-42-4	2- hydrolyzed	4B
9003-18-3	2- Propenenitrile, polymer with 1,3-butadiene	4B
	Propenenitrile, polymer with 1,3-butadiene and	
9003-56-9	2- ethenylbenzene	4B

24938-16-7	Propenoic acid, 2-methyl-, butyl ester, polymer with 2- (dimethylamino)ethyl 2-methyl-2-propenoate and methyl 2- 2- methyl-2-propenoate	4B
	Propenoic acid, 2-methyl-, dodecyl ester, polymer with eicosyl 2-methyl-2-propenoate, hexadecyl 2-methyl-2-propenoate, octadecyl 2-methyl-2-propenoate, pentadecyl	
63150-03-8	2-methyl-2-propenoate, tetradecyl 2-methyl-2-propenoate2- and tridecyl 2-methyl-2-propenoatePropenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-	4B
71394-17-7	propenoate, ethenylbenzene, 2-ethylhexyl 2-propenoate 2- and methyl 2methyl-2-propenoate	4B
	Propenoic acid, 2-methyl-, polymer with ethenylbenzene,	
26873-77-8	2- 2-ethylhexyl 2-propenoate and 2-propene Propenoic acid, 2-methyl-, polymer with ethyl 2- propenoate and methyl 2-methyl-2-propenoate,	4B
55989-05-4	2- ammonium salt	4B
41487-53-0	Propenoic acid, 2-methyl-, polymer with ethyl 2- 2- propenoate, sodium salt	4B
	Propenoic acid, 2-methylpolymer with ethyl 2-propenoate	
89511-79-5	2- and methyl 2-methyl-2-propenoate, sodium salt Propenoic acid, butyl ester, polymer with ethenylbenzene	4B
30795-23-4	2- and 2-ethylhexyl 2-propenoate Propenoic acid, butyl ester, polymer with ethyl 2-	4B
29437-34-1	2- propenoate and 2-propenenitrile	4B
25608-12-2	2- Propenoic acid, homopolymer, potassium salt	4B
05005 00 0	Propenoic acid, polymer with 1,3-butadiene and	40
25085-39-6	2- ethenylbenzene Propenoic acid, polymer with 2-hydroxypropyl 2-	4B
86864-96-2	2- propenoic acid, polymer with 2-hydroxypropyr 2- 2- propenoate and sodium 2-propenoate Propenoic acid, polymer with 2-propanol, reaction	4B
114033-68-0	2- 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
00450 57 0	Rosin, fumarated, polymer with ethylene glycol and	40
68152-57-8	pentaerythritol (CA INDEX NAME)	4B
68333-69-7	Rosin, maleated, polymer with pentaerythritol	4B
	Sand Sanda lettura	4B
	Seeds, lettuce Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis	4B
68909-20-6	products with silica	4B
68611-44-9	Silane, dichlorodimethyl-, reaction products with silica	4B
	district sarry , reaction products with silled	

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
	Siloxanes and silicones, 3-hydroxypropyl Me, ethers with	
117272-76-1	polyethylene glycol mono-Me ether	4B
	Siloxanes and silicones, di-Me, 3-hydroxypropyl Me,	
68554-64-3	ethers with polyethylene glycol mono-Me ether	4B
	Siloxanes and silicones, di-Me, 3-hydroxypropyl Me,	
68938-54-5	ethers with polyethylene glycol mono-Me ether	4B
	Siloxanes and silicones, di-Me, 3-hydroxypropyl Me,	
67762-87-2	ethers with polyethylene-polypropylene glycol	4B
	Siloxanes and silicones, di-Me, 3-hydroxypropyl Me,	
68440-66-4	ethers with polypropylene glycol mono-Bu ethe	4B
	Siloxanes and silicones, di-Me, 3-hydroxypropyl Me,	
68937-55-3	ethoxylated propoxylated	4B
	Siloxanes and silicones, di-Me, Me hydrogen, reaction	
68037-62-7	products with polyethylene glycol monoacetate	4B
	Siloxanes and silicones, di-Me,hydroxy-terminated, ethers	
67762-96-3	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
	Soybean oil, polymer with ethylene glycol, glycerol,	
67762-09-8	pentaerythritol and phthalic anhydride	4B
	Soybean oil, polymer with isophthalic acid, linseed oil and	
68309-49-9	trimethylolpropane	4B
66071-16-7	Soybean oil, polymer with maleic anhydride	4B
	Soybean oil, polymer with phthalic anhydride, trimellitic	
68131-29-3	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
00000 00 4	Styrene, polymer with methacrylic acid and	45
68630-83-1	polyethoxylated (Z)-2-butenedioic acid	4B
9003-70-7	Styrene-divinyl benzene copolymer resin matrix	4B
05750 00 5	Styrene-methyl methacrylate-2-ethylhexyl acrylate	40
25750-06-5	copolymer	4B
8002-33-3	Sulfated castor oil	4B
10025-67-9	Sulfur Charted Unes	4B
7004.00.0	Sulfur Coated Urea	4B
7664-93-9	Sulfuric acid	4B
68919-54-0 8028-48-6	Sunflower-oil fatty acids, Me ester	4B 4B
14807-96-6	Sweet orange peel tincture 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
30 30 0	Thumb tacks	4B
13463-67-7	Titanium dioxide	4B
10100 07 7	Tree nuts (raw and processed forms)	4B
	Triazine-2,4,6-triamine, polymer with formaldehyde,	
68002-20-0	1,3,5- methylated	4B
7758-87-4	Tricalcium phosphate	4B
26915-70-8	Tridecanol, ethoxylated, phospate ester	4B
15468-32-3	Tridymite (SiO2)	4B
.0.00 02 0	Triethanolamine, compd. with poly(oxyethylene)	
105362-40-1	tristyrylphenyl ether phosphate	4B
1317-95-9	Tripoli	4B
	•	
	Alpha- Tris[1-(phenyl)ethyl}phenyl]-omega-	
132580-45-1	[2,4,6- 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
	Vinyl acetate, polymer with methyl acrylate and methyl	
28430-58-2	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
	Vinyl pyrrolidone-dimethylaminoethylmethacrylate	
30581-59-0	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

ppendix 2	2: Safer (Chemical Ingredient List¹	Half Green	20846-	N,N'-Ethylenediamine disuccin
SCIL	CAS	Name	[Circle]	91-7	acid
Rating			Green	866-	Potassium citrate, anhydrous
Antimicrobia (al Actives		[Circle]	84-2	
Green	77-92-	Citric acid, anhydrous	Green	6100-	Potassium citrate, monohydra
[Circle]	9		[Circle]	05-6	
Green	64-17-	Ethanol	Green	68-04-	Sodium citrate, anhydrous
[Circle]	5		[Circle]	2	
Green	7722-	Hydrogen peroxide	Green	6132-	Sodium citrate, dihydrate
[Circle]	84-1		[Circle]	04-3	
Green	67-63-	Isopropanol	Half Green	178949	Sodium ethylene diamine
Circle]	0		[Circle]	-82-1	disuccinate
Green	79-33-	L-Lactic acid	Green	136205	Sodium glucarate
Circle]	4		[Circle]	3-75-5	
Green	79-21-	Peracetic acid	Green	527-	Sodium gluconate
Circle]	0		[Circle]	07-1	
Green	7681-	Sodium bisulfate	Green	51981-	Tetrasodium N,N-
Circle]	38-1		[Circle]	21-6	bis(carboxylatomethyl)-L-
helating Ag					glutamate
lalf Green	181828	2-Butenedioic acid (2Z)-,	Colorants		
Circle]	-06-8	ammonium salt (1:?),	Yellow	63589-	2-Anthracenesulfonic acid, 1-
,		homopolymer, hydrolyzed, sodium	[Triangle]	10-6	amino-9,10-dihydro-4-[(4-
		salts			methoxyphenyl)amino]-9,10-d
ireen	164462	Alanine, N,N-bis(carboxymethyl)-,			, sodium salt (1:1)
Circle]	-16-2	sodium salt (1:3)			
0.1.0.0]	10 2	Social Sale (1.5)	Half Green	70210-	C. I. Acid Violet 54
lalf Green	144538	Aspartic acid, N-(1,2-	[Circle]	05-8	
Circle]	-83-0	dicarboxyethyl)-, tetrasodium salt	Half Green	11006-	C.I. 75810
0.1.0.0]	00 0	alean boxyethy, y tetrasouram sait	[Circle]	34-1	
Green	145677	Butanedioic acid, 2-methylene-,	Yellow	6408-	C.I. Acid Blue 145
Circle]	2-91-0	polymer with 2-propenoic acid and	[Triangle]	80-6	
o c.c.j	2310	sodium 2-methyl-2-[(1-oxo-2-	Yellow	6408-	C.I. Acid Blue 25
		propen-1-yl)amino]-1-	[Triangle]	78-2	
		propanesulfonate	Yellow	6424-	C.I. Acid Blue 40
			[Triangle]	85-7	
ireen	77-92-	Citric acid, anhydrous	Yellow	4474-	C.I. Acid Blue 80
Circle]	9	cicio dela, diffiyarede	[Triangle]	24-2	
Green	5 526-	D-Gluconic acid	Yellow	28983-	C.I. Acid Blue 93
Circle]	95-4	5 Glacoffic dela	[Triangle]	56-4	
Green	17140-	D-glycero-D-gulo-Heptonic acid,	Yellow	5850-	C.I. Acid Brown 14, disodium s
Circle]	60-2	calcium salt (2:1)	[Triangle]	16-8	
ireen	13007-	D-glycero-D-gulo-Heptonic acid,	Half Green	19381-	C.I. Acid Green 1
Circle]	85-7	monosodium salt	[Circle]	50-1	
reen	3609-	Dipotassium hydrogen citrate	Yellow	1320-	C.I. Acid Orange 24, monosodi
Circle]	96-9	Dipotassium nyurogen citiate	[Triangle]	07-6	salt
	79-33-	L-Lactic acid	Yellow	3567-	C.I. Acid Red 14
reen `ircle]	79-33- 4	L-Lactic aciu	[Triangle]	69-9	
Circle]		Managadium D. alusahantarata	Half Green	12220-	C.I. Acid Red 289
ireen	31138-	Monosodium D-glucoheptonate	[Circle]	28-9	
Circle]	65-5		[]		

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	Yellow [Triangle]	2783- 94-0	FD&C Yellow No. 6
Half Green [Circle]	6408- 63-5	C.I. Acid Violet 34	Yellow [Triangle]	15790- 07-5	FD&C Yellow No. 6-aluminum lake
Yellow [Triangle]	4430- 18-6	C.I. Acid Violet 43	Half Green [Circle]	27344- 06-5	Fluorescent Brightener 230
Yellow	72243-	C.I. Acid Violet 48	Green	16090-	FWA-1
[Triangle] Yellow	90-4 6359-	C.I. Acid Yellow 17	[Circle] Green	02-1 13463-	Titanium (IV) oxide
[Triangle]	98-4	C.I. Acid fellow 17	[Circle]	67-7	ritanium (IV) Oxide
Half Green	1330-	C.I. Direct Blue 86	Defoamers	07-7	
[Circle]	38-7	c.ii. Billect Blac 60	Green	3004-	2-Methyloctanoic acid
Yellow	3626-	C.I. Direct Orange 26	[Circle]	93-1	2-iviethyloctanoic acid
[Triangle]	36-6	5 2 600 6.686 26	Green	68154-	Alcohols, C10-12, ethoxylated
Green	16470-	C.I. Fluorescent Brightener 220	[Circle]	97-2	propoxylated
[Circle]	24-9		Green	1302-	Bentonite
Green	4193-	C.I. Fluorescent Brightener 28,	[Circle]	78-9	Bentonice
[Circle]	55-9	sodium salt	Half Green	67762-	Dimethyl silicone polymer with
Green	4404-	C.I. Fluorescent Brightening Agent	[Circle]	90-7	silica
[Circle]	43-7	28	Green	9003-	Poloxalene
Yellow	4548-	C.I. Food Red 1	[Circle]	11-6	. Greaters
[Triangle]	53-2		Half Green	70131-	Polydimethylsiloxane, hydroxy-
Half Green	8028-	C.I. Natural Brown 10	[Circle]	67-8	terminated
[Circle]	89-5		Yellow	63148-	Polydimethylsiloxanes
Green	147-	C.I. Pigment Blue 15	[Triangle]	62-9	. , ,
[Circle]	14-8		Green	9004-	Polyethylene glycol stearate
Green	1328-	C.I. Pigment Green 7	[Circle]	99-3	, ,
[Circle]	53-6		Yellow	9011-	Polynoxylin
Yellow	12225-	C.I. Pigment Yellow 100	[Triangle]	05-6	•
[Triangle]	21-7		Green	9082-	Propylene oxide ethylene oxide
Yellow	6358-	C.I. Solvent Green 7	[Circle]	00-2	polymer, ether with glycerol (3:1)
[Triangle]	69-6				
Half Green	63950-	C.I.Direct Blue 199	Yellow	68937-	Siloxanes and Silicones, di-Me, 3-
[Circle]	02-7		[Triangle]	55-3	hydroxypropyl Me, ethoxylated
Half Green	90295-	Copper phthalocyanine, sulfamoyl			propoxylated
[Circle]	11-7	sulfo derivs., sodium salts	Half Green	68440-	Siloxanes and Silicones, di-methyl,
Yellow	4403-	D&C Green No. 5	[Circle]	70-0	hydroxy-terminated, reaction
[Triangle]	90-1				products with
Yellow	3567-	D&C Red No. 33			chlorotrimethylsilane, hydrochloric
[Triangle]	66-6				acid, iso-Pr alc. and sodium silicate
Yellow	68921-	FD&C Blue No. 1 aluminum lake			
[Triangle]	42-6				
Green	3844-	FD&C Blue No.1	Emollients		
[Circle]	45-9	500 CDL N. 4 D5 CD:	Green	8002-	Cocoa butter
Half Green	9079-	FD&C Blue No.1, PEG Derivative	[Circle]	31-1	
[Circle]	33-8	FD9 C Cross No. 3	Green	8016-	Cuburbita pepo seed oil
Yellow	2353-	FD&C Green No. 3	[Circle]	49-7	
[Triangle]	45-9 25056	ED&C Pod 40	Green	27138-	Dipropylene glycol dibenzoate
Green	25956- 17-6	FD&C Red 40	[Circle]	31-4	
[Circle] Green	1934-	FD&C Yellow No. 5	Green	8008-	Fats and Glyceridic oils, sesame
[Circle]	21-0	I DAC TEHOW NO. 3	[Circle]	74-0	Chronidae CAC 40 and CAC
[Circle]	21-U		Green	91744-	Glycerides, C16-18 and C18-unsatd.
			[Circle]	09-1	mono-

Green	67701- 28-4	Glycerides, C8-18 and C18-unsatd.	Yellow [Triangle]	9001- 62-1	Rizolipase
[Circle]	6309-	Isoamul laurato	Green	141-	Sodium formate
Green		Isoamyl laurate			Sociali formate
[Circle]	51-9	leavenum understate	[Circle]	53-7	Culatiliaina
Green	142-	Isopropyl palmitate	Yellow	9014-	Subtilisins
[Circle]	91-6		[Triangle]	01-1	
Green	111-	Methyl laurate	Fragrance		
[Circle]	82-0		Yellow	110-	2-Methyl-undecanal
Green	8023-	Oils, palm kernel	[Triangle]	41-8	
[Circle]	79-8		Yellow	65405-	1,2,3,4,4a,7,8,8a-Octahydro-
Green	68917-	Oils, wheat	[Triangle]	72-3	2,4a,5,8a-tetramethyl-1-naphthyl
[Circle]	73-7				formate
Green	91078-	Orbignya oleifera seed oil			
[Circle]	92-1		Yellow	166432	1,3-Undecadien-5-yne
Green	111-	Squalane	[Triangle]	-52-6	
[Circle]	01-3		Yellow	150-	1,4-dimethoxybenzene
Green	8001-	Sunflower oil	[Triangle]	78-7	,
[Circle]	21-6		Yellow	112-	10-Undecenal
Enzymes an	d Stabilize	rs	[Triangle]	45-8	20 0114 0001141
Green	57-55-	1,2-Propanediol	Half Green	112-	1-Decanol
[Circle]	6	,	[Circle]	30-1	1 Decarior
Yellow	9000-	alpha-Amylase	Green	112-	1-Dodecanol
[Triangle]	90-2		[Circle]	53-8	1-Dodecanoi
Yellow	9000-	Amylase			1 Nananal
[Triangle]	92-4	Allyluse	Half Green	143-	1-Nonanol
Yellow	9000-	Amylase bacterial	[Circle]	08-8	
[Triangle]	85-5	Alliylase bacterial	Half Green	111-	1-Octanol
Yellow	9080-	Bacillolysin Bacillus	[Circle]	87-5	
	56-2		Half Green	112-	1-Tetradecanol
[Triangle]		metalloprotease	[Circle]	72-1	
Yellow	1303-	Borax	Half Green	112-	1-Undecanol
[Triangle]	96-4		[Circle]	42-5	
Yellow	1330-	Boron sodium oxide	Yellow	4674-	2(3H)-Naphthalenone, 4,4a,5,6,7,8-
[Triangle]	43-4		[Triangle]	50-4	hexahydro-4,4a-dimethyl-6-(1-
Green	10043-	Calcium chloride, anhydrous			methylethenyl)-, (4R,4aS,6R)-
[Circle]	52-4				
Green	10035-	Calcium chloride, dihydrate			
[Circle]	04-8		Yellow	13254-	2,6-Dimethyl-2-heptanol
Green	544-	Calcium formate	[Triangle]	34-7	
[Circle]	17-2		Yellow	93-08-	2-Acetylnaphthalene
Yellow	9012-	Cellulase	[Triangle]	3	
[Triangle]	54-8		Yellow	5471-	2-Butanone, 4-(4-hydroxyphenyl)-
Green	59-51-	DL-Methionine	[Triangle]	51-2	, , , , , , , , , , , , , , , , , , , ,
[Circle]	8		Yellow	137-	2-Heptylcyclopentan-1-one
Yellow	9014-	Hydratase, phosphoenolpyruvate	[Triangle]	03-1	
[Triangle]	08-8		Yellow	51115-	2-Methylbutyl salicylate
Yellow	37288-	Mannanase, endo-1,4-beta-	[Triangle]	63-0	2 Wethylodeyr sandylate
[Triangle]	54-3	, ,	Yellow	13491-	2-tert-Butyloyclohevanol
Yellow	10043-	Orthoboric acid		13491- 79-7	2-tert-Butylcyclohexanol
[Triangle]	35-3	2	[Triangle]		2 cic Hayanyi mathyi acabaasta
Yellow	9032-	Polygalacturonase	Yellow	67633-	3-cis-Hexenyl methyl carbonate
[Triangle]	9032- 75-1	i oryganacturonase	[Triangle]	96-9	2011
		Protoinaco	Half Green	562-	3-Cyclohexen-1-ol, 4-methyl-1-(1-
Yellow	9001- 92-7	Proteinase	[Circle]	74-3	methylethyl)-
[Triangle]	JZ-1				

Friangle 4-7 2,4-6-trimethyl- Friangle 71-8 Vellow 10-6 Citronella	Yellow	1423-	3-Cyclohexene-1-carboxaldehyde,	Yellow	3681-	cis-3-Hexenylacetate
Yellow 81782-1 3-Decen-5-ol, 4-methyl- [Triangle] 23-5 Chronello Yellow 65405- 3-Hexenyl salicylate Triangle] 22-9 Litronelloxyacetaldehyde Yellow 2457- 3-Methyl-5-heptanone oxime Triangle] 67-3 Litronelloxyacetaldehyde Yellow 33-4 47-Methano-1H-indenol, Triangle] 69-3 Litronellyl acetate Yellow 32210- 41-Butylcyclohexyl acetate Yellow 31752- Cyclohexanecarboxylic acid, 2,2-1 Triangle] 32-4 41-Butylcyclohexyl acetate Yellow 31752- Cyclohexanecarboxylic acid, 2,2-1 Yellow 32-1 7-Coten-2-ol, 2-methyl-6- Triangle] 8-5-2 Imethyl-6-methylene-, methyl Yellow 3219- 7-Coten-2-ol, 2-methyl-6- Triangle] 30-6 trimethyl-3-propyl- Triangle] 21-9 Methylene-, dihydro deriv. Yellow 38462- Cyclohexanoen, 2-(1-mercapto-1-1) Triangle] 21-2 Yellow 310-2 Yellow 25-2 Yellow 127-2 Jajha-Isom	[Triangle]	46-7	2,4,6-trimethyl-	[Triangle]	71-8	
[Triangle] 7.76 Yellow 106 Citronellol Yellow 6545-5 3-Hexenyl salicylate [Triangle] 22-9 Citronelloxyacetaldehyde Yellow 22457-7 3-Methyl-5-heptanone oxime [Triangle] 67-3 Citronelloxyacetaldehyde Yellow 54830-7-4-Mexhyl-5-heptanone oxime Triangle] 63-2 Citronellyl acetate Yellow 54830-7-4-Mexhyl-5-heptanone oxime Yellow 8175-2 Cuclinaldehyde Yellow 32210-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1				Yellow	106-	Citronellal
Yellow 65405- 3-Hexenyl salicylate (Triangle) 72-8 Vellow 7492- Citronelloxyacetaldehyde Yellow 22457- 3-Methyl-5-heptanone oxime [Triangle] 67-3 Citronelly acetate Yellow 243-7 3-Methyl-5-heptanone oxime Yellow 150- Citronelly acetate Yellow 32-10- 4-Rautylcyclohexal cateta Yellow 122- Cyclohexanecarboxylic acid, 2,2- Yellow 32210- 4-Rautylcyclohexal cateta Yellow 31752- Cyclohexanecarboxylic acid, 2,2- Yellow 32521- 4-tert-Butylcyclohexanol Triangle] 8-6- dimethyl-6-methylene-, methyl Yellow 32529- 7-Octer-2-ol, 2-methyl-6- Triangle] 30-6- trimethyl-alpha-propyl- Yellow 3219- 7-Octer-2-ol, 2-methyl-6- Triangle] 30-6- trimethyl-alpha-propyl- Yellow 127- alpha-lonone Triangle] 22-5- methylethyl)-5-methyl- Yellow 127- alpha-lonone Triangle] 6-4- Yellow 4819- Cyclohexanone	Yellow	81782-	3-Decen-5-ol, 4-methyl-	[Triangle]	23-0	
[Triangle] 7.78 Yellow 74.90 Citronelloxyacetaldehyde Yellow 2245- 3-Methyl-5-heptanone oxime [Triangle] 67-3 Citronellyl acetate Yellow 54830- (Triangle) 84-5 Citronellyl acetate Yellow 3210- 4-Butylcyclohexyl acetate Yellow 817-2 Cyclohexanecarboxylic acid, 2,2-2 Yellow 98-52- 4-tert-Butylcyclohexanol Triangle] 87-6 dimethyl-6-methylene-, methylene-, methy	[Triangle]	77-6		Yellow	106-	Citronellol
Vellow 22457-1 3-Methyl-5-heptanone oxime [Triangle] 67-3 Citronellyl acetate Yellow 54830- 4,7-Methano-1H-indenol, [Triangle] 84-5 Cuminaldehyde [Triangle] 99-8 3,4,5,6,7,78-hexahydro, acetate Yellow 81752- Cyclohexanecarboxylic acid, 2,2-0 dimethyl-6-methylene-, methyl essets Yellow 32210- 4-ter-Butylcyclohexanol "Friangle] 8-6 Cyclohexanecrboxylic acid, 2,2-0 dimethyl-6-methylene-, methyl essets [Triangle] 2- 4-ter-Butylcyclohexanol Triangle] 8-6 Cyclohexanecrboxylic acid, 2,2-6 dimethyl-6-methylene-, methyl essets [Triangle] 2- 4-ter-Butylcyclohexanol Triangle] 8-6 Cyclohexanecrboxylic acid, 2,2-6 dimethyl-6-methylene-, methyl essets [Triangle] 2-1 4-ter-Butylcyclohexanol Triangle 8-6 Cyclohexanecrboxylic acid, 2,2-6 dimethyl-6-methylene-, methyl essets [Triangle] 2-1 4-ter-Butylcyclohexanol Triangle 8-6 Cyclohexanecrboxylic acid, 2,2-6 dimethyl-6-methylene-, methyl essets [Triangle] 21-2 2-1 4-1 4-1 4-1 4-1 4-1	Yellow	65405-	3-Hexenyl salicylate	[Triangle]	22-9	
	[Triangle]	77-8		Yellow	7492-	Citronelloxyacetaldehyde
Verliow S4830	Yellow	22457-	3-Methyl-5-heptanone oxime	[Triangle]	67-3	
Finangle	[Triangle]	23-4		Yellow	150-	Citronellyl acetate
Yellow 3210-10 41-Butylcyclohexyl acetate Trianglel 3175-2 Cyclohexanecarboxylic acid, 2,2-2 (Triangle) 23-4 (Triangle) 87-6 dimethyl-6-methylene, methyl ester Yellow 98-52 4-tert-Butylcyclohexanol Yellow 70788- Cyclohexanepropanol, 2,2,6-trimethyl-apha-propyl-1 Half Green 3319-1 7-Octen-2-ol, 2-methyl-6-methylene, dihydro deriv. Trianglel 38462-1 Cyclohexanone, 2-(1-mercapto-1-1) (Triangle) 21-9 alpha-lonone Trianglel 22-5 methylethyl)-5-methyl-Y-1 (Triangle) 21-2 alpha-Isomethylionone [Triangle] 67-4 Cyclopentanone, 2-pentyl-Y-1 (Triangle) 51-5 Yellow 112-2 Decaldehyde (Triangle) 31-3 Alpha-Methyl ionone [Triangle] 67-4 Cyclopentanone, 2-pentyl-Y-1 (Triangle) 31-5 Alpha-Methyl ionone [Triangle] 68-4 Cyclopentanone, 2-pentyl-Y-1 (Triangle) 31-5 Alpha-Terpineol [Triangle] 68-4 Decaldehyde (Triangle) 3-5 <t< td=""><td>Yellow</td><td>54830-</td><td>4,7-Methano-1H-indenol,</td><td>[Triangle]</td><td>84-5</td><td></td></t<>	Yellow	54830-	4,7-Methano-1H-indenol,	[Triangle]	84-5	
Vellow 32210 4-t-Butylcyclohexyl acetate Yellow 81752 Cyclohexanecarboxylic acid, 2,2-2 (Friangle) 23-4 4 (Friangle) 8-6-6 dimethyle-methylene, methyl ester (Friangle) 2 4-tert-Butylcyclohexanol 70788 Cyclohexanepropanol, 2,16-6 (Friangle) 21-9 methylene-, dihydro deriv. Yellow 30-6 trimethyl-alpha-,propyl- (Firiangle) 21-9 methylene-, dihydro deriv. Yellow 3842 Cyclohexanone, 2-(1-mercapto-1-mercapto-1-methyl-tyl-5-methyl- (Friangle) 21-2 alpha-lonone (Triangle) 67-4 Cyclopentanone, 2-pentyl- (Flow) 127-2 alpha-Isomethylionone (Triangle) 67-4 Cyclopentanone, 2-pentyl- (Flirangle) 51-5 AlphaMethyl ionone (Triangle) 68-4 Occaldehyde (Flirangle) 51-5 AlphaMethyl ionone (Triangle) 68-4 Occaldehyde (Flirangle) 51-5 AlphaMethyl ionone (Triangle) 68-4 Occaldehyde (Flirangle) 51-5 Alpha	[Triangle]	99-8	3a,4,5,6,7,7a-hexahydro-, acetate	Yellow	122-	Cuminaldehyde
Ifriangley 23-4 - Lett-Butylcyclohexanol Triangle 8-6-bester dimethyl-6-methylene-, methyl ester ester Ifriangle 3219 7-Octen-2-ol, 2-methyl-6- [Triangle] 30-6 trimethyl-alpha-propoyl- (Circle) 13019 9-Decen-1-ol Yellow 38462 Cyclohexanone, 2-(1-mercapto-1- (Triangle) 22-2 alpha-lonone Trimethyl-alpha-prophyl- Trimethyl-alpha-prophyl- (Triangle) 41-3 alpha-lonone Yellow 4819- Cyclopentanone, 2-pentyl- Yellow 127- alpha-lonone [Triangle] 67-4 Yellow 12- Decaldehyde Yellow 177- alpha-Methyl ionone [Triangle] 68-2 Yellow 17- Decaldehyde (Iriangle) 30-8 alpha-Terpineol [Triangle] 68-2 Yellow 17- delta-Dadacalactone (Iriangle) 62-5 Amyl acetate [Triangle] 68-2 Dicyclopentadiene propionate (Iriangle) 03-7 Awyl acetate [Triangle] 95-1 Dicyclope				[Triangle]	03-2	
Yellow 98-52- 4-tert-Butylcyclohexanol Yellow 70788- Cyclohexanepropanol, 2,2,6- ITriangle 3219- 7-Octen-2-ol, 2-methyl-6- [Triangle] 30- trimethyl-alphapropyl- ICircle 21-9 methylene-, dihydro deriv. Yellow 38462- Cyclohexanone, 2-(1-mercapto-1-methyl-1	Yellow	32210-	4-t-Butylcyclohexyl acetate	Yellow	81752-	Cyclohexanecarboxylic acid, 2,2-
Triangle S	[Triangle]	23-4		[Triangle]	87-6	dimethyl-6-methylene-, methyl
ITriangley Half Green 2 Sa219 s (Cyclohexanepropanol, 2,2,6-trimethyl-alpha-propyl-Girciee) 7-Octen-2-ol, 2-methyl-6 (Triangle) (Triangle) 30-6 trimethyl-alpha-propyl-trimethyl-alpha-propyl-Girciee (Circle) 21-9 methylene-, dihydro deriv. wethylene-, dihydro deriv. vellow 38462 (Cyclohexanone, 2-(1-mercapto-1-methylethyl)-5-methyl-grimethyl Vellow 127- alpha-lonone (Triangle) 67-4 Vellow 127- becaldehyde ITriangles 51-5 s (Dynamics) 4819- alpha-Somethylionone (Triangle) 67-4 Vellow 12- becaldehyde Yellow 777- 3 alpha-Methylionone (Triangle) 31-2 becaldehyde Octealdehyde Yellow 779- 3-4 alpha-Terpineol (Triangle) 31-2 becaldehyde Octealdehyde Yellow 628- 3-4 alpha-Terpineol (Triangle) 86-4 becalactone Octeal-Damascone Yellow 628- 4 alpha-Terpineol (Triangle) 86-2 becaledhyde Octeal-Damascone Yellow 628- 5 alpha-Terpineol (Triangle) 86-2 becaledhyde Octeal-Damascone Yellow 628- 6 alpha-Terpineol (Triangle) 86-2 becaledhyde Octeal-Damascone <td< td=""><td>Yellow</td><td>98-52-</td><td>4-tert-Butylcyclohexanol</td><td></td><td></td><td>ester</td></td<>	Yellow	98-52-	4-tert-Butylcyclohexanol			ester
Half Green S3194	[Triangle]	2		Yellow	70788-	Cyclohexanepropanol, 2,2,6-
Circicel 21-9 methylene-, dihydro deriv. Yellow 13019- 9-Decen-1-ol Yellow 28-62- Cyclohexanone, 2-{1-mercapto-1-mer			7-Octen-2-ol, 2-methyl-6-	[Triangle]		• • • • • •
Yellow 13019-1 9-Decen-1-ol Yellow 38462-1 Cyclohexanone, 2-(1-mercapto-1-1 mercapto-1-1 mer	[Circle]		•			, , , , ,
ITrianglely Vellow 22-2 try ITRIANGELY Sellow 22-5 try methylethyl)-5-methyl- Yellow 127- alpha-lonone Yellow 48.19 Cyclopentanone, 2-pentyl- Yellow 127- alpha-lsomethylionone [Triangle] 67-4 Decaldehyde Yellow 777- Triangle] 31-2 Decaldehyde Geral Selbary Yellow 777- Triangle] 30-8 Alpha-Methyl ionone Triangle] 68-4 Geral Decalactone Half Green 98-55- alpha-Terpineol [Triangle] 68-4 Geral Decalactone Yellow 628- Amyl acetate Triangle] 86-2 Geral Decalactone Yellow 628- Amyl salicylate [Triangle] 86-2 Dicyclopentadiene propionate Half Green 82-19 Balinol Triangle] 95-1 Dicyclopentadiene propionate Yellow 250-5 Amyl salicylate [Triangle] 13-0 Dicyclopentadiene propionate Yellow 536-6 Benzyl salicylate [Triangle] 13-0 Dicyclopentadiene propionate Yellow 536-7				Yellow	38462-	Cyclohexanone, 2-(1-mercapto-1-
Yellow 127- (Triangle) alpha-lonone Yellow 4819- (Triangle) Cyclopentanone, 2-pentyl- Yellow 127- (Triangle) alpha-Isomethylionone [Triangle) 67-4 Yellow 7779- (Triangle) alpha-Methyl ionone [Triangle) 31-2 Half Green 98-55- alpha-Terpineol Yellow 5737- Yellow delta-Damascone (Gircle) 5 alpha-Terpineol [Triangle) 68-4 Hellow Yellow 705- Yellow 628- Yellow Amyl acetate [Triangle) 86-2 delta-Dodecalactone Yellow 2050- Yellow Amyl salicylate [Triangle) 95-1 Dicyclopentadiene propionate Half Green 28219- Yellow Balinol [Triangle) 13-0 Diethyl malonate Yellow 506- Yellow Benzenepentanol, gamma-methyl- Yellow [Circle) 53-3 Diethyl malonate Yellow 118- Yellow Benzyl salicylate [Triangle) 21-8 Dihydrocitronellol Yellow 151- Yellow Benzyldimethyl carbinyl acetate [Triangle) 45-						
Irriangle 41-3 Vellow 4819- (cyclopentanone, 2-pentyl- Yellow 127- alpha-Isomethylionone [Triangle] 67-4 Decaldehyde Yellow 7779- alpha-Methylionone [Triangle] 31-2 Decaldehyde [Triangle] 30-8 Yellow 57378- delta-Damascone Half Green 8-55- alpha-Terpineol Triangle] 68-4 Hellow Yellow 628- Amyl acetate Triangle] 86-2 Hellow Yellow 2050- Amyl salicylate Triangle] 95-1 Dicyclopentadiene propionate Half Green 28219- Balinol Triangle] 13-2 Dicyclopentadiene propionate Yellow 55066- Benzenepentanol, gamma-methyl- [Triangle] 13-2 Dicyclopentadiene propionate Yellow 18-3 Benzyl salicylate Triangle] 13-3 Yellow 18-3 Prick Green 105-1 Dicyclopentadiene propionate Yellow 18-3 Benzyl salicylate Triangle] 13-2 Dicyclopentadiene propionate Yellow 18-3 Prick Green <t< td=""><td></td><td></td><td>alpha-Ionone</td><td>[</td><td></td><td></td></t<>			alpha-Ionone	[
Vellow 127- (Triangle) alpha-Isomethylionone (Triangle) 67-4 Decaldehyde Yellow 777- (Triangle) 30-8 ITriangle) 30-8 Alpha-Methyl ionone Triangle) 68-4 Vellow 57378- delta-Damascone Half Green 98-55- (Circle) 30-8 Amyl acetate Triangle) 68-4 Vellow 705- (Priangle) delta-Dodecalactone Yellow 628- (Triangle) Amyl salicylate Triangle) 86-2 Dicyclopentadiene propionate Half Green 28219- (Circle) Balinol Triangle) 95-1 Dictyl malonate Yellow 5506- (Irriangle) Benzenepentanol, gamma-methyl- (Circle) Triangle) 13-0 (Dircle) Dictyl malonate Yellow 118- (Priangle) Benzyl salicylate Triangle) 12-8 (Dircle) Dictyl malonate Yellow 151- (Priangle) Benzyl dimethyl carbinyl acetate Triangle) 12-8 (Dircle) Dihydrocytronellol Yellow 151- (Priangle) Benzyl dimethyl carbinyl acetate Friangle) 45-0 (Dircle) Dinethyl malonate				Yellow	4819-	Cyclonentanone 2-nentyl-
[Triangle] 51-5 Jecaldehyde Yellow 779 alpha-Methyl ionone [Triangle] 31-2 [Triangle] 30-8 Jepha-Methyl ionone [Triangle] 63-2 Half Green 98-55- alpha-Terpineol [Triangle] 66-4 Hellow 705- delta-Damascone Yellow 628- Amyl acetate [Triangle] 86-2 Hellow 713- delta-Dodecalactone Yellow 2050- Amyl salicylate [Triangle] 95-1 Dicyclopentadiene propionate Half Green 28219- Balinol [Triangle] 13-0 Dicyclopentadiene propionate Yellow 5506- Benzenepentanol, gamma-methyl- [Circle] 53-3 Dicyclopentadiene propionate Yellow 118- Benzenepentanol, gamma-methyl- [Circle] 53-3 Dicyclopentadiene propionate Yellow 118- Benzenepentanol, gamma-methyl- [Circle] 53-8 Pellow 105- Dibydrocitronellol Yellow 118- Benzyl salicylate [Triangle] 18-			alnha-Isomethylionone			cyclopentarione, 2 pentyr
Yellow 7779- Irriangle] alpha-Methyl inone [Triangle] Yellow 31-2 Gelta-Damascone Half Green Palforen			aipha isomethynonone			Decaldehyde
[Triangle] 30-8 Jean of the formation of the format			alpha-Methyl ionone			Decarderryae
Half Green			aipha Methyrionone			delta-Damascone
Circle] 5 Amyl acetate Yellow 705- delta-Decalactone Yellow 628- Amyl acetate [Triangle] 86-2 delta-Dodecalactone Yellow 2050- Amyl salicylate Triangleg 95-1 Dicyclopentadiene propionate Yellow 68912- Dicyclopentadiene propionate Half Green 13-0 Dicyclopentadiene propionate Half Green 28219- Balinol [Triangle] 13-0 Dicyclopentadiene propionate Yellow 5506- Benzenepentanol, gamma-methyl- [Circle] 53-3 Dicyclopentadiene propionate Yellow 118- Benzyl salicylate [Triangle] 13-0 Dicyclopentadiene propionate Yellow 118- Benzyl salicylate [Triangle] 13-0 Dicyclopentadiene propionate Yellow 118- Benzyl salicylate [Triangle] 106- Dicyclopentadiene propionate Yellow 118- Benzyl salicylate [Triangle] 106- Dicyclopentadiene propionate Yellow 118- Benzyl salicylate <td< td=""><td></td><td></td><td>alnha-Terningol</td><td></td><td></td><td>delta-balliascone</td></td<>			alnha-Terningol			delta-balliascone
Yellow 628-billow Amyl acetate [Triangle] 86-2 Hellow 713-billow delta-Dodecalactone (Yellow 2050-200-200-200-200-200-200-200-200-200			aipiia-rei piileoi			dolta Docalactoro
Triangle) Yellow63-7Amyl salicylateTriangle) (Triangle)95-1delta-Dodecalactone(Triangle) (Triangle)08-0Yellow68912- YellowDicyclopentadiene propionateHalf Green (Circle)61-6Green10-0Diethyl malonateYellow Yellow5506- Sof6- Sof6- (Triangle)Benzenepentanol, gamma-methyl- Yellow[Circle] Yellow53-3 YellowDihydrocitronellolYellow Yellow118- Senzyl salicylate[Triangle] (Circle)21-8 YellowDihydrocytronellolYellow Yellow151- Senzyl dimethyl carbinyl acetate[Circle] (Circle)58-8 YellowDihydromyrcenolYellow Yellow14901- Sof6- Sof6- YellowSenzyl dimethyl carbinyl acetate[Circle] Green58-8 YellowDiisobutyl carbinyl acetateYellow Yellow14901- Sof6- Sof6- Sutanoic acid, 3-methyl-, 3- Triangle)[Circle] Green59-8 YellowDimethyl malonateYellow Yellow28940- Calone[Triangle] Triangle]61-1 YellowDimethyl tetrahydrobenzaldehydeYellow Yellow79-92- Camphene[Triangle] Yellow16-8 YellowDipenteneYellow Yellow99-49- YellowCarvone[Triangle] Yellow10-1 YellowDiphentyl oxideYellow Yellow99-49- Yellow10-1 YellowDiphentyl oxideYellow Yellow99-8- Yellow10-1 YellowDiphentyl oxide			Amyl acetate			delta-Decalacione
Yellow 2050- 2			Amyracetate			dolta Dadasalastana
Trianglel08-0Yellow68912- (Trianglel)Dicyclopentadiene propionateHalf Green28219- (Circlel)Balinol[Trianglel]13-0[Circlel]61-6Green105-Diethyl malonateYellow55066- (Trianglel)Benzenepentanol, gamma-methyl- (Plow)[Circlel]53-3Yellow118- (Trianglel)Benzyl salicylate[Triangle]21-8[Triangle]58-1Half Green18479- (Plow)DihydromyrcenolYellow151- (Trianglel)Benzyldimethyl carbinyl acetate[Circlel]58-8[Trianglel]05-3Yellow10250-Diisobutyl carbinyl acetateYellow14901- (Trianglel)beta-lonone[Trianglel]45-0-[Trianglel]07-6Green108-Dimethyl malonateYellow659- (Trianglel)Butanoic acid, 3-methyl-, 3- (Trianglel)[Circlel]59-8Dimethyl tetrahydrobenzaldehydeYellow28940- (Trianglel)Calone[Trianglel]61-1Dimethylallyl acetateYellow79-92- (Trianglel)Camphene[Trianglel]16-8DipenteneYellow99-49- (Trianglel)Carvone[Trianglel]86-3DipenteneYellow99-49- (Siranglel)Carvone[Trianglel]84-8DipenteneYellow99-49- (Siranglel)Circlel5989-D-Limonene			Amul caliculato			delta-Dodecalactorie
Half Green28219- (Circle)Balinol[Triangle] Green13-0Diethyl malonateYellow55066- YellowBenzenepentanol, gamma-methyl- (Triangle)[Circle] 53-353-3Yellow118- Half GreenBenzyl salicylate[Triangle] (Triangle)21-8(Triangle)58-1Half Green18479- Half GreenDihydromyrcenolYellow151- (Triangle)Benzyldimethyl carbinyl acetate[Circle] Yellow58-8Diisobutyl carbinyl acetate(Triangle)05-3Yellow10250- YellowDimethyl malonateYellow14901- (Triangle)beta-lonone[Triangle] (Triangle)45-0(Triangle)70-6Butanoic acid, 3-methyl-, 3- methylbutyl ester[Circle] Yellow59-8(Triangle)70-1 methylbutyl esterYellow Yellow68737- (Triangle)Dimethyl tetrahydrobenzaldehydeYellow28940- YellowCamphene[Triangle] (Triangle)16-8(Triangle)11-6 Yellow191- (Triangle)Dimethyl allyl acetateYellow99-49- (Triangle)Carvone[Triangle] (Triangle)86-3(Triangle)0 Yellow101- (Triangle)Diphenyl oxideYellow928- (Triangle)58-8- (Triangle)84-8Yellow928- (Triangle)598- (Triangle)Di-Limonene			Amyrsancylate			Disvelananta diana propingata
Circle]61-6Green105-Diethyl malonateYellow55066-Benzenepentanol, gamma-methyl-[Circle]53-3[Triangle]48-3Yellow106-DihydrocitronellolYellow118-Benzyl salicylate[Triangle]21-8[Triangle]58-1Half Green18479-DihydromyrcenolYellow151-Benzyldimethyl carbinyl acetate[Circle]58-8[Triangle]05-3Yellow10250-Diisobutyl carbinyl acetateYellow14901-beta-lonone[Triangle]45-0Dimethyl malonate[Triangle]07-6Green108-Dimethyl malonateYellow659-Butanoic acid, 3-methyl-, 3-[Circle]59-8Dimethyl tetrahydrobenzaldehydeYellow28940-Calone[Triangle]61-1Dimethyl acetate[Triangle]11-6Yellow1191-Dimethylallyl acetateYellow79-92-Camphene[Triangle]16-8[Triangle]5Yellow138-DipenteneYellow99-49-Carvone[Triangle]86-3[Triangle]0Yellow101-Diphenyl oxideYellow928-cis-3-hexenol[Triangle]84-8[Triangle]96-1Yellow5989-D-Limonene			Policel			Dicyclopentadiene propionate
Yellow55066- (Triangle)Benzenepentanol, gamma-methyl- Yellow[Circle)53-3ObinydrocitronellolYellow118- (Triangle)Benzyl salicylate[Triangle)21-8DihydromyrcenolYellow151- (Triangle)Benzyldimethyl carbinyl acetate[Circle)58-8DihydromyrcenolYellow151- (Triangle)Benzyldimethyl carbinyl acetate[Circle]58-8Diisobutyl carbinyl acetateYellow14901- (Triangle)beta-lonone[Triangle]45-0Dimethyl malonateYellow659- (Triangle)Butanoic acid, 3-methyl-, 3- (Circle)[Circle]59-8Dimethyl malonateYellow28940- (Triangle)Calone[Triangle]61-1Dimethyl tetrahydrobenzaldehydeYellow79-92- (Triangle)Camphene[Triangle]16-8Dimethylallyl acetateYellow99-49- (Triangle)Carvone[Triangle]86-3DipenteneYellow928- (Triangle)Carvone[Triangle]84-8DipenteneYellow928- (Triangle)Cis-3-hexenol[Triangle]84-8D-Limonene			BallilOi			Distant malayata
Triangle] Yellow48-3Yellow106- Triangle]DihydrocitronellolYellow118- Triangle]Benzyl salicylate[Triangle]21-8[Triangle]58-1Half Green18479- TolkowDihydromyrcenolYellow151- YellowBenzyldimethyl carbinyl acetate[Circle]58-8[Triangle]05-3Yellow10250- YellowDiisobutyl carbinyl acetateYellow14901- Triangle]beta-lonone[Triangle]45-0[Triangle]07-6Green108-Dimethyl malonateYellow659- Triangle]Butanoic acid, 3-methyl-, 3- Methylbutyl esterYellow68737- YellowDimethyl tetrahydrobenzaldehydeYellow28940- YellowCalone[Triangle]61-1Triangle]11-6Yellow1191- YellowDimethylallyl acetateYellow79-92- YellowCamphene[Triangle]16-8Triangle]5Yellow138- YellowDipenteneYellow99-49- YellowCarvone[Triangle]86-3[Triangle]0Yellow101- YellowDiphenyl oxideYellow928- Yellow5989-D-Limonene			Danage and the state of the sta			Dietnyi maionate
Yellow118- [Triangle]Benzyl salicylate[Triangle]21-8[Triangle]58-1Half Green18479- 58-8DihydromyrcenolYellow151- YellowBenzyldimethyl carbinyl acetate[Circle]58-8[Triangle]05-3Yellow10250- YellowDiisobutyl carbinyl acetateYellow14901- Yellowbeta-lonone[Triangle]45-0[Triangle]07-6Green108- Sp-8Dimethyl malonateYellow659- YellowButanoic acid, 3-methyl-, 3- methylbutyl esterYellow68737- YellowDimethyl tetrahydrobenzaldehydeYellow28940- YellowCalone[Triangle]61-1[Triangle]11-6Yellow1191- YellowDimethylallyl acetateYellow79-92- YellowCamphene[Triangle]16-8[Triangle]5Yellow138- YellowDipenteneYellow99-49- YellowCarvone[Triangle]86-3[Triangle]0Yellow101- YellowDiphenyl oxideYellow928- YellowCis-3-hexenol[Triangle]84-8[Triangle]96-1Yellow5989-D-Limonene			Benzenepentanoi, gamma-metnyi-			Dibardan situa a alla l
Triangle58-1Half Green18479-DihydromyrcenolYellow151-Benzyldimethyl carbinyl acetate[Circle]58-8[Triangle]05-3Yellow10250-Diisobutyl carbinyl acetateYellow14901-beta-lonone[Triangle]45-0[Triangle]07-6Green108-Dimethyl malonateYellow659-Butanoic acid, 3-methyl-, 3-[Circle]59-8[Triangle]70-1methylbutyl esterYellow68737-Dimethyl tetrahydrobenzaldehydeYellow28940-Calone[Triangle]61-1[Triangle]11-6Yellow1191-Dimethylallyl acetateYellow79-92-Camphene[Triangle]16-8[Triangle]5Yellow138-DipenteneYellow99-49-Carvone[Triangle]86-3[Triangle]0Yellow101-Diphenyl oxideYellow928-cis-3-hexenol[Triangle]84-8[Triangle]96-1Yellow5989-D-Limonene			8 1 1 1 1			Dinydrocitronellol
Yellow151- [Triangle]Benzyldimethyl carbinyl acetate[Circle] Yellow58-8Diisobutyl carbinyl acetateYellow14901- 14901-beta-lonone[Triangle]45-0[Triangle]07-6Green108- GreenDimethyl malonateYellow659- [Triangle]Butanoic acid, 3-methyl-, 3- methylbutyl esterYellow68737- YellowDimethyl tetrahydrobenzaldehydeYellow28940- YellowCalone[Triangle]61-1[Triangle]11-6Yellow1191- YellowDimethylallyl acetateYellow79-92- YellowCamphene[Triangle]16-8[Triangle]5Yellow138- YellowDipenteneYellow99-49- YellowCarvone[Triangle]86-3[Triangle]0Yellow101- YellowDiphenyl oxideYellow928- (is-3-hexenol)[Triangle]84-8[Triangle]96-1Yellow5989-D-Limonene			Benzyl salicylate			511
[Triangle]05-3Yellow10250-Diisobutyl carbinyl acetateYellow14901-beta-lonone[Triangle]45-0[Triangle]07-6Green108-Dimethyl malonateYellow659-Butanoic acid, 3-methyl-, 3-[Circle]59-8[Triangle]70-1methylbutyl esterYellow68737-Dimethyl tetrahydrobenzaldehydeYellow28940-Calone[Triangle]61-1[Triangle]11-6Yellow1191-Dimethylallyl acetateYellow79-92-Camphene[Triangle]16-8[Triangle]5Yellow138-DipenteneYellow99-49-Carvone[Triangle]86-3[Triangle]0Yellow101-Diphenyl oxideYellow928-cis-3-hexenol[Triangle]84-8[Triangle]96-1Yellow5989-D-Limonene			5 10 11 11 11 1			Dinydromyrcenoi
Yellow14901- [Triangle]beta-lonone[Triangle]45-0Dimethyl malonate[Triangle]07-6Green108- 59-8Dimethyl malonateYellow659- [Triangle]Butanoic acid, 3-methyl-, 3- methylbutyl ester[Circle]59-8[Triangle]70-1 79-1methylbutyl esterYellow68737- 61-1Dimethyl tetrahydrobenzaldehyde[Triangle]11-6 YellowYellow1191- 16-8Dimethylallyl acetate[Triangle]5 YellowYellow138- 138-DipenteneYellow99-49- (Triangle]Carvone[Triangle]86-3[Triangle]0 YellowYellow101- 10			Benzyldimethyl carbinyl acetate			5"
[Triangle]07-6Green108-Dimethyl malonateYellow659-Butanoic acid, 3-methyl-, 3-[Circle]59-8[Triangle]70-1methylbutyl esterYellow68737-Dimethyl tetrahydrobenzaldehydeYellow28940-Calone[Triangle]61-1[Triangle]11-6Yellow1191-Dimethylallyl acetateYellow79-92-Camphene[Triangle]16-8[Triangle]5Yellow138-DipenteneYellow99-49-Carvone[Triangle]86-3[Triangle]0Yellow101-Diphenyl oxideYellow928-cis-3-hexenol[Triangle]84-8[Triangle]96-1Yellow5989-D-Limonene						Diisobutyl carbinyl acetate
Yellow659-Butanoic acid, 3-methyl-, 3-[Circle]59-8[Triangle]70-1methylbutyl esterYellow68737-Dimethyl tetrahydrobenzaldehydeYellow28940-Calone[Triangle]61-1[Triangle]11-6Yellow1191-Dimethylallyl acetateYellow79-92-Camphene[Triangle]16-8[Triangle]5Yellow138-DipenteneYellow99-49-Carvone[Triangle]86-3[Triangle]0Yellow101-Diphenyl oxideYellow928-cis-3-hexenol[Triangle]84-8[Triangle]96-1Yellow5989-D-Limonene			beta-lonone			
[Triangle]70-1methylbutyl esterYellow68737-Dimethyl tetrahydrobenzaldehydeYellow28940-Calone[Triangle]61-1[Triangle]11-6Yellow1191-Dimethylallyl acetateYellow79-92-Camphene[Triangle]16-8[Triangle]5Yellow138-DipenteneYellow99-49-Carvone[Triangle]86-3[Triangle]0Yellow101-Diphenyl oxideYellow928-cis-3-hexenol[Triangle]84-8[Triangle]96-1Yellow5989-D-Limonene						Dimethyl malonate
Yellow28940- [Triangle]Calone[Triangle]61-1[Triangle]11-6Yellow1191- [Triangle]Dimethylallyl acetateYellow79-92- [Triangle]Camphene[Triangle]16-8Yellow138- [Triangle]DipenteneYellow99-49- [Triangle]Carvone[Triangle]86-3[Triangle]0Yellow101- [Triangle]Diphenyl oxideYellow928- [Triangle](is-3-hexenol)[Triangle]84-8[Triangle]96-1Yellow5989-D-Limonene						
[Triangle]11-6Yellow1191-Dimethylallyl acetateYellow79-92-Camphene[Triangle]16-8[Triangle]5Yellow138-DipenteneYellow99-49-Carvone[Triangle]86-3[Triangle]0Yellow101-Diphenyl oxideYellow928-cis-3-hexenol[Triangle]84-8[Triangle]96-1Yellow5989-D-Limonene						Dimethyl tetrahydrobenzaldehyde
Yellow79-92-Camphene[Triangle]16-8[Triangle]5Yellow138-DipenteneYellow99-49-Carvone[Triangle]86-3[Triangle]0Yellow101-Diphenyl oxideYellow928-cis-3-hexenol[Triangle]84-8[Triangle]96-1Yellow5989-D-Limonene			Calone			
[Triangle]5Yellow138-DipenteneYellow99-49-Carvone[Triangle]86-3[Triangle]0Yellow101-Diphenyl oxideYellow928-cis-3-hexenol[Triangle]84-8[Triangle]96-1Yellow5989-D-Limonene						Dimethylallyl acetate
Yellow99-49-Carvone[Triangle]86-3[Triangle]0Yellow101-Diphenyl oxideYellow928-cis-3-hexenol[Triangle]84-8[Triangle]96-1Yellow5989-D-Limonene			Camphene			
[Triangle]0Yellow101-Diphenyl oxideYellow928-cis-3-hexenol[Triangle]84-8[Triangle]96-1Yellow5989-D-Limonene						Dipentene
Yellow928-cis-3-hexenol[Triangle]84-8[Triangle]96-1Yellow5989-D-Limonene			Carvone			
[Triangle] 96-1 Yellow 5989- D-Limonene						Diphenyl oxide
			cis-3-hexenol			
[Triangle] 27-5	[Triangle]	96-1				D-Limonene
				[Triangle]	27-5	

Yellow 112	Yellow [Triangle]	15356- 60-2	D-Menthol	Yellow [Triangle]	107- 75-5	Hydroxycitronellal
[Triangle] 54-9 Ethyl butyrate [Triangle] 72-9 Nemanical content [Triangle] 54-4 Ethyl butyrate [Triangle] 90-9 Image of Saal Ithyl ome of Saal			Dodecanal			Indole
Vellow 105- (Triangle) Ethyl butyrate Yellow (Triangle) 8013- (Triangle) lonone Yellow 67634- (Imangle) Ethyl Half Green (Circle) 123- (Yellow 105- (Soamyl butyrate Half Green Yellow 7452- (Imangle) Ethyl ester 2-methylbutanoic acid (Triangle) Triangle) 27-4 (Triangle) Imangle (Triangle) 87-20- (Triangle) Isoamyl butyrate Yellow 108- (Triangle) Ethyl linalool (Triangle) (Triangle) 7- (Triangle) 10- (Triangle) Isoatyl salicylate Yellow 61931- (Triangle) Ethyl linalyl acetate Triangle) (Triangle) 4- (Triangle) 4- (Yellow 133- (Socyclocitral) Yellow 692- (Triangle) Ethyl undecylenate Triangle) (Triangle) 85- (Yellow 125- (Socyclocitral) Imagle (Triangle) 85- (Yellow 133- (Socyclocitral) Half Green 10- (Triangle) 85- (Triangle) 85- (Triangle) 85- (Triangle) 85- (Socyclocitral) Triangle 85- (Triangle) 85- (Triangle) 85- (Triangle) 85- (Triangle) 85- (Triangle) 85- (Triangle) 85- (Triangle) 85- (Triangle)						
[Triangle] 54-4 Vellow 676-34 Ethyl [Triangle] Half Green 12-3 Isoamyl acetate [Triangle] 15-5 dimethylhydrocinnamaldehyde [Circle] 92-2 Vellow 106-1 Isoamyl butyrate Half Green 745-2 Pathyl ester 2-methylbutanoic acid [Triangle] 27-2 Isoamyl salicylate [Circle] 79-1 Vellow 87-20-1 Isoamyl salicylate 106-1 Isoamyl salicylate [Triangle] 64-5 Pathyl Iinalool [Circle] 19-0 Isoamyl salicylate [Triangle] 55-6 Pathyl Iinalool [Circle] 19-0 Isobutyl acetate [Triangle] 55-6 Pathyl Iinalool [Triangle] 4 [Triangle] 80-4 Pathyl Iinalol [Triangle] 48-5 [Triangle] 80-4 Pathyl Iinalol [Triangle] 48-5 [Triangle] 80-4 Pathyl Iinalol 11-1 Pathyl Iinalol <td></td> <td></td> <td>Ethyl butyrate</td> <td></td> <td></td> <td>Ionone</td>			Ethyl butyrate			Ionone
Vertical primary 4 ct office the primary 12-3- to dimethylhydrocinnamaldehyde Half Green (Circle) 12-3- to dimethylhydrocinnamaldehyde Circle (Circle) 92-2- to dimethylhydrocinnamaldehyde Circle (Circle) 10-0- to soamyl butyrate Half Green 7452- to dimethylhydrocinnamaldehyde (Friangle) 74- to disomyl butyrate CiCircle) 79-1 Ethyl isovalerate (Friangle) 7- to soamyl salicylate Yellow 103-9 Ethyl linalool (Circle) 19-0 sobutyl salicylate Yellow 1931- Ethyl linalyl acetate (Friangle) 4- Yellow 193-1 socycloctiral Yellow 692- Ethyl undecylenate [Triangle) 65-6 Yellow 193-5 socycloctiral Yellow 692- Ethyl undecylenate [Triangle) 48-6 Yellow 193-9- socycloctiral Yellow 692- Ethyl undecylenate [Triangle) 48-6 Yellow 193-9- socycloctral Yellow 92-5 Ethyl undecylenate [Triangle) 48-6 Yellow 193-9- <td< td=""><td></td><td></td><td>,</td><td></td><td></td><td></td></td<>			,			
			Ethyl			Isoamyl acetate
Half Green			•			•
Half Green 7452	. 0.		, ,			Isoamyl butyrate
	Half Green	7452-	Ethyl ester 2-methylbutanoic acid	[Triangle]		
Vellow 108- Ethyl isovalerate [Triangle] 7 sobutyl acetate Vellow 10339- Ethyl linalool [Circle] 19-0 sobutyl acetate Vellow 61931- Ethyl linalyl acetate [Triangle] 48-1 socyclocitral Vellow 692- Ethyl undecylenate [Triangle] 66-6 yellow 1335- socyclocitral Yellow 692- Ethyl undecylenate [Triangle] 66-6 yellow 1821-0 socyclocitral Yellow 82-4 Ethyl enbrassylate [Triangle] 85-5 Jasmal Yellow 470- Eucalyptol [Circle] 18-2-1 Jasmal Yellow 470- Eucalyptol [Circle] 19-2 Jasmin pyranol Half Green 105- Ethylene brassylate [Circle] 18-2 Jasmal Yellow 470- Eucalyptol [Circle] 18-2 Jasman Yellow 470- Brain Green 18-2 Jasman Yellow	[Circle]	79-1	•			Isoamyl salicylate
Firmingless	Yellow	108-	Ethyl isovalerate	[Triangle]	7	
[Triangle] 55-6 Kellow 619-11 Ethyl linalyl acetate Yellow 619-11 Linalyl acetate Triangle Yellow 4 Yellow 1335- Isocyclocitral Yellow 692- Ethyl undecylenate [Triangle] 66-6 Yellow 125-109 Isopropylphenylbutanal Half Green 121- Ethyl vanillin [Triangle] 28-7 Isopulegol Half Green 105- Ethyl vanillin [Triangle] 28-8-9-9 Isopulegol Yellow 470- Eucalyptol [Circle] 14-2 Jasmal Yellow 470- Eucalyptol [Circle] 14-2 Jasmal [Triangle] 82-6 Half Green 6350 Florol Yellow 48-8 Jasmone [Circle] 17-0 Half Green 70-9 Malf Green 10-8 Yellow 48-1 LCarvone [Circle] 105- gamma-Heptalactone [Triangle] 40-1 Yellow 89-6 Ligustral [Gircle] 06-5	[Triangle]	64-5		Half Green	110-	Isobutyl acetate
[Triangle] 55-6 Kehlyl linalyl acetate Yellow 87-19- Isobutyl salicylate Yellow 692- Ethyl undecylenate [Triangle] 66-6 Isocyclocitral Yellow 692- Ethyl vanillin [Triangle] 66-6 Isopropylphenylbutanal Half Green 121- Ethyl vanillin [Triangle] 85-5 Isopulegol Gicricle 32-4 Ethyl vanillin [Triangle] 2-8-9-79 Isopulegol Half Green 105- Ethylene brassylate [Triangle] 2-4-14 Half Green 18871- Jasmal Yellow 470- Eucalyptol [Circle] 14-2-14 Half Green 18871- Jasmal Yellow 470- Eucalyptol [Circle] 14-2-14 Half Green 38285- Jasman [Circle] 95-3 Florol Yellow 488- Jasmone [Circle] 10-0 Yellow 488- L-Carvone [Circle] 10-5-14 gamma-Decalactone [Triangle] 40-1 Ininalool [Circle]<	Yellow	10339-	Ethyl linalool	[Circle]	19-0	
[Triangle] 80-4 Ethyl undecylenate Yellow 1335- Isocyclocitral Yellow 692- Ethyl undecylenate Triangle] 66-6 Yellow 125-10 Isopropylyhenylbutanal Half Green 121- Ethyl vanillin Triangle] -85-5 Yellow 89-79- Isopulegol Half Green 105- Ethylene brassylate Triangle] 2 Jasmal Yellow 470- Eucalyptol [Circle] 14-2 Jasmal Yellow 870- Florol [Circle] 14-2 Jasmin pyranol Half Green 63500- Florol [Circle] 49-3 Jasmin pyranol Half Green 710- Yellow 488- Jasmone [Circle] 14-9 yellow 6485- L-Carvone [Circle] 15-9 gamma-Decalactone [Triangle] 40-1 Triangle] 40-1 [Circle] 10-4 gamma-Hexalactone [Triangle] 40-1 Triangle] 10-1 [Circl	[Triangle]	55-6		Yellow	87-19-	Isobutyl salicylate
Yellow 692- (Triangle) Ethyl undecylenate [Triangle) Yellow 66-6- Yellow Jospropylphenylbutanal Half Green 121- 121- 121- 121- 121- 121- 121- 121-	Yellow	61931-	Ethyl linalyl acetate	[Triangle]	4	
Irrianglel 86-4 Ethyl vanillin Yellow 125109 Isopropylphenylbutanal Irrianglel 32-4 Ethyl vanillin Irrianglel 88-7-9 Isopulegol Irriangle 95-3 Ethylene brassylate Irrianglel 2 Icirclel 95-3 Half Green 18871- Jasmal Yellow 470- Eucalyptol [Circle] 14-2 Irrianglel 2 Half Green 32-6 Half Green 3826- Jasmin pyranol 48-8 Jasmin pyranol Icirclel 71-0 Yellow 48-8 Jasmone 48-8 Jasmone Icirclel 71-0 gamma-Decalactone [Triangle] 40-1 Yellow 48-8 Jasmone Half Green 105- gamma-Heptalactone [Triangle] 40-1 Yellow	[Triangle]	80-4		Yellow	1335-	Isocyclocitral
Half Green 121-	Yellow	692-	Ethyl undecylenate	[Triangle]	66-6	
Circle 32-4 Ethylene brassylate Triangle 2 Sopulegol Circle 95-3 Ethylene brassylate [Triangle] 2 Jasmal Circle 95-3 Eucalyptol [Circle] 14-2 Jasmal Yellow 470- Eucalyptol [Circle] 14-2 Jasmin pyranol Half Green 63500- Florol [Circle] 49-3 Jasmin pyranol Half Green 706- gamma-Decalactone [Triangle] 10-8 Jasmone Half Green 706- gamma-Decalactone [Triangle] 40-1 Carvone Half Green 105- gamma-Heptalactone [Triangle] 40-1 Ligustral Half Green 695- gamma-Hexalactone [Triangle] 40-1 Ligustral Half Green 104- gamma-Nonalactone [Triangle] 6 Linalool [Circle] 60-7 Yellow 115- Linalool Half Green 104- gamma-Octalactone [Triangle] 51-5	[Triangle]	86-4		Yellow	125109	Isopropylphenylbutanal
Circle 32-4 Ethylene brassylate Triangle 2 Sopulegol Circle 95-3 Ethylene brassylate [Triangle] 2 Jasmal Circle 95-3 Eucalyptol [Circle] 14-2 Jasmal Yellow 470- Eucalyptol [Circle] 14-2 Jasmin pyranol Half Green 63500- Florol [Circle] 49-3 Jasmin pyranol Half Green 706- gamma-Decalactone [Triangle] 10-8 Jasmone Half Green 706- gamma-Decalactone [Triangle] 40-1 Carvone Half Green 105- gamma-Heptalactone [Triangle] 40-1 Ligustral Half Green 695- gamma-Hexalactone [Triangle] 40-1 Ligustral Half Green 104- gamma-Nonalactone [Triangle] 6 Linalool [Circle] 60-7 Yellow 115- Linalool Half Green 104- gamma-Octalactone [Triangle] 51-5	Half Green	121-	Ethyl vanillin	[Triangle]	-85-5	
Circle 95-3	[Circle]	32-4			89-79-	Isopulegol
Vellow 470- [Triangle] Eucalyptol [Circle] 14-2 [Triangle] Half Green 38285- [Jasmin pyranol] Half Green 6350- [Circle] 71-0 Plorol Yellow 48-3 [Jasmone] [Circle] 71-0 yellow 48-3 [Jasmone] Jasmone Half Green 706- [Triangle] 10-8 [Triangle] 10-8 [Jasmone] [Circle] 14-9 Yellow 68-5 [Jasmone] Half Green 105- [Jasmone] gamma-Hexalactone [Triangle] 40-1 [Jasmone] [Circle] 06-7 Yellow 680-9 [Jasmone] Linalool Half Green 104- [Malf Green] 104- [Malf Green] 104- [Malf Green] 115- [Linalool] Half Green 104- [Jasmone] gamma-Nonalactone [Triangle] 95-7 [Jasmone] [Circle] 50-7 Yellow 215- [Jasmone] L-Menthol Yellow 99-85- [Jasmone] gamma-Terpinene [Triangle] 51-5 [Triangle] 15-5 [Triangle] [Circle] 67-6 Giycerol triacetate [Triangle] 72-9 [Triangle] Menthol, racemic </td <td>Half Green</td> <td>105-</td> <td>Ethylene brassylate</td> <td>[Triangle]</td> <td>2</td> <td></td>	Half Green	105-	Ethylene brassylate	[Triangle]	2	
Triangle 82-6	[Circle]	95-3		Half Green	18871-	Jasmal
Half Green 63500- Circle 71-0 Yellow 488- Jasmone Yellow 488- Jasmone Yellow 488- Jasmone Yellow 488- Jasmone Yellow 6485- L-Carvone Yellow 6485- L-Carvone Yellow 6485- L-Carvone Yellow 68039- Ligustral Ligustral Half Green 695- gamma-Heptalactone Triangle 49-6 Ligustral Yellow 68039- Ligustral Ligustral Half Green 104- gamma-Hexalactone Triangle 49-6 Ligustral Yellow 78-70- Linalool Triangle 49-6 Linalyl acetate Triangle 49-6 Linalyl acetate Yellow 115- Linalyl acetate Triangle 50-7 Yellow 2216- L-Menthol Yellow 99-85- gamma-Terpinene Triangle 51-5 Triangle 50-7 Yellow 2216- L-Menthol Yellow 106- Melonal Yellow 106- Melonal Triangle 14173 Helvetolide Triangle 14173 Hexanoic acid, ethyl ester Triangle 79-5 Triangle 1416 Green 142- Hexanoic acid, ethyl ester Triangle 30-8 Methyl 2-nonenoate Triangle 46-2 Triangl	Yellow	470-	Eucalyptol	[Circle]	14-2	
Circle] 71-0 yellow 488-4 Jasmone Half Green 706-706-706-706-706-706-706-706-706-706-	[Triangle]	82-6		Half Green	38285-	Jasmin pyranol
Half Green 706- gamma-Decalactone [Triangle] 10-8	Half Green	63500-	Florol	[Circle]	49-3	
Circle] 14-9 Yellow 6485- L-Carvone Half Green 105- gamma-Heptalactone [Triangle] 40-1 [Circle] 21-5 Yellow 68039- Ligustral Half Green 695- gamma-Hexalactone [Triangle] 49-6 Linalool Half Green 104- gamma-Nonalactone [Triangle] 6 Linalyl acetate Half Green 104- gamma-Octalactone [Triangle] 95-7 Linalyl acetate Half Green 104- gamma-Octalactone [Triangle] 95-7 Linalyl acetate [Circle] 50-7 Yellow 2216- L-Menthol Yellow 99-85- gamma-Terpinene [Triangle] 51-5 Yellow [Circle] 67-6 Gamma-undecalactone [Triangle] 72-9 Menthol [Circle] 67-6 Yellow 1490- Menthol Green 102- Glycerol triacetate [Triangle] 04-6 Yellow [Circle] 76-1	[Circle]	71-0		Yellow	488-	Jasmone
Half Green 105- gamma-Heptalactone [Triangle] 40-1 Yellow 68039- Ligustral Half Green 695- gamma-Hexalactone [Triangle] 49-6 Yellow 78-70- Linalool Half Green 104- gamma-Nonalactone [Triangle] 6 Yellow 115- Linalyl acetate Half Green 104- gamma-Octalactone [Triangle] 95-7 Yellow 2216- L-Menthol Yellow 99-85- gamma-Terpinene [Triangle] 50-7 Yellow 2216- L-Menthol Yellow 99-85- gamma-Terpinene [Triangle] 72-9 Triangle] 4 Yellow 106- Melonal Half Green 104- Gamma-undecalactone [Triangle] 72-9 Circle] 67-6 Gamma-undecalactone [Triangle] 72-9 Circle] 76-1 Yellow 89-78- Menthol, racemic Half Green 141773 Helvetolide [Triangle] 1 Circle] 73-1 Yellow 1335- Methyl onone Yellow 66-25- Hexanal [Triangle] 46-2 Triangle] 1 Methyl 2-nonenoate Half Green 142- Hexanoic acid, ethyl ester Yellow 111- Methyl 2-nonynoate Half Green 142- Hexyl acetate [Triangle] 80-8 Circle] 92-7 Yellow 93-58- Methyl benzoate Yellow 6259- Hexyl Salicylate [Triangle] 30-8 Yellow 93-58- Methyl benzoate Yellow 111- Methyl 2-nonynoate	Half Green	706-	gamma-Decalactone	[Triangle]	10-8	
Circle]21-5Yellow68039- LigustralHalf Green695- gamma-Hexalactone[Triangle]49-6[Circle]06-7Yellow78-70- LinaloolHalf Green104- gamma-Nonalactone[Triangle]6[Circle]61-0Yellow115- Linalyl acetateHalf Green104- gamma-Octalactone[Triangle]95-7[Circle]50-7Yellow2216- L-MentholYellow99-85- gamma-Terpinene[Triangle]51-5[Triangle]4Yellow106- MelonalHalf Green104- Gamma-undecalactone[Triangle]72-9[Circle]67-6Yellow1490- MentholGreen102- Glycerol triacetate[Triangle]04-6[Circle]76-1Yellow89-78- Menthol, racemicHalf Green141773Helvetolide[Triangle]1[Circle]-73-1Yellow1335- Methy IononeYellow66-25- Hexanal[Triangle]46-2[Triangle]1Yellow111- Methyl 2-nonenoateHalf Green123- Hexanoic acid, ethyl ester[Triangle]79-5[Circle]66-0Yellow111- Methyl 2-nonynoateHalf Green142- Hexyl acetate[Triangle]80-8[Circle]92-7Yellow93-58- Methyl benzoateYellow6259- Hexyl Salicylate[Triangle]3	[Circle]	14-9		Yellow	6485-	L-Carvone
Half Green695- [Circle]gamma-Hexalactone[Triangle]49-6Half Green104- (Circle]gamma-Nonalactone[Triangle]6Half Green104- (Circle]gamma-Octalactone[Triangle]6Linalyl acetateHalf Green104- (Gircle]gamma-Octalactone[Triangle]95-7Linalyl acetate[Circle]50-7Yellow2216- (L-Menthol)L-MentholYellow99-85- (Gircle]gamma-Terpinene[Triangle]51-5Half Green[Triangle]4Yellow106- (Triangle]MelonalHalf Green104- (GreenGamma-undecalactone[Triangle]72-9[Circle]67-6Yellow1490- (Triangle)MentholGreen102- (Circle]Glycerol triacetate[Triangle]04-6[Circle]76-1Yellow89-78- (Triangle]Menthol, racemicHalf Green141773Helvetolide[Triangle]1Yellow66-25- (Triangle]Hexanal[Triangle]46-2[Triangle]11- (Yellow111- (Yellow)Methyl 2-nonenoateHalf Green142- (Circle]Hexanoic acid, ethyl ester[Triangle]80-8[Circle]92-7Yellow93-58- (Yellow)Methyl benzoateYellow6259- (Yellow)93-58- (Yellow)Methyl benzoateYellow6259- (Yellow)111- (Yellow)Methyl benzoate	Half Green	105-	gamma-Heptalactone	[Triangle]	40-1	
Cicrcle] 06-7 Yellow 78-70- Linalool Half Green 104- gamma-Nonalactone [Triangle] 6 Linalyl acetate [Circle] 61-0 Yellow 115- Linalyl acetate Half Green 104- gamma-Octalactone [Triangle] 95-7 L-Menthol Yellow 99-85- gamma-Terpinene [Triangle] 51-5 L-Menthol Yellow 106- Melonal Melonal Melonal Half Green 104- Gamma-undecalactone [Triangle] 72-9 Menthol [Circle] 67-6 Yellow 1490- Menthol Green 102- Glycerol triacetate [Triangle] 04-6 Menthol, racemic [Circle] 76-1 Yellow 89-78- Menthol, racemic [Circle] -73-1 Yellow 1335- Methyl lonone Yellow 66-25- Hexanal [Triangle] 79-5 [Circle] 66-0 Yellow 111- Methyl 2-nonynoate	[Circle]	21-5		Yellow	68039-	Ligustral
Half Green 104- gamma-Nonalactone [Triangle] 6 [Circle] 61-0 Yellow 115- Linalyl acetate Half Green 104- gamma-Octalactone [Triangle] 95-7 [Circle] 50-7 Yellow 2216- L-Menthol Yellow 99-85- gamma-Terpinene [Triangle] 51-5 [Triangle] 4 Yellow 106- Melonal Half Green 104- Gamma-undecalactone [Triangle] 72-9 [Circle] 67-6 Yellow 1490- Menthol Green 102- Glycerol triacetate [Triangle] 04-6 [Circle] 76-1 Yellow 89-78- Menthol, racemic Half Green 141773 Helvetolide [Triangle] 1 [Circle] -73-1 Yellow 1335- Methyl onone Yellow 66-25- Hexanal [Triangle] 46-2 [Triangle] 1 Hexanoic acid, ethyl ester [Triangle] 79-5 [Circle] 66-0 Yellow 111- Methyl 2-nonenoate Half Green 142- Hexyl acetate [Triangle] 80-8 [Circle] 92-7 Yellow 93-58- Methyl benzoate Yellow 6259- Hexyl Salicylate [Triangle] 3	Half Green	695-	gamma-Hexalactone	[Triangle]	49-6	
Circle 61-0	[Circle]	06-7		Yellow	78-70-	Linalool
Half Green104- [Circle]gamma-Octalactone[Triangle]95-7[Circle]50-7Yellow2216- YellowL-MentholYellow99-85- [Triangle]gamma-Terpinene[Triangle]51-5[Triangle]4Yellow106- YellowMelonalHalf Green104- GreenGamma-undecalactone[Triangle]72-9[Circle]67-6Yellow1490- YellowMentholGreen102- Glycerol triacetate[Triangle]04-6[Circle]76-1Yellow89-78- YellowMenthol, racemicHalf Green141773Helvetolide[Triangle]1[Circle]-73-1Yellow1335- YellowMethy lononeYellow66-25- Hexanal[Triangle]46-2[Triangle]1Yellow111- YellowMethyl 2-nonenoateHalf Green123- (Circle]Hexanoic acid, ethyl ester[Triangle]79-5[Circle]66-0Yellow111- YellowMethyl 2-nonynoateHalf Green142- Yellow111- YellowMethyl benzoateYellow93-58- YellowMethyl benzoateYellow525-Hexyl Salicylate[Triangle]3	Half Green	104-	gamma-Nonalactone	[Triangle]	6	
Circle]50-7Yellow2216- S1-5L-MentholYellow99-85- Gamma-Terpinene[Triangle]51-5MelonalHalf Green104- Gamma-undecalactoneYellow106- YellowMelonalGreen102- Giycerol triacetateYellow1490- YellowMenthol[Circle]76-1Yellow89-78- YellowMenthol, racemicHalf Green141773Helvetolide[Triangle]1[Circle]-73-1Yellow1335- YellowMethyl ononeYellow66-25- Hexanal[Triangle]46-2[Triangle]1Yellow111- YellowMethyl 2-nonenoateHalf Green123- Hexanoic acid, ethyl ester[Triangle]79-5[Circle]66-0Yellow111- YellowMethyl 2-nonynoateHalf Green142- Hexyl acetate[Triangle]80-8[Circle]92-7Yellow93-58- YellowMethyl benzoateYellow6259-Hexyl Salicylate[Triangle]3	[Circle]	61-0		Yellow	115-	Linalyl acetate
Yellow99-85- [Triangle]gamma-Terpinene[Triangle]51-5[Triangle]4Yellow106- YellowMelonalHalf Green104- GreenGamma-undecalactone[Triangle]72-9[Circle]67-6Yellow1490- YellowMentholGreen102- Glycerol triacetate[Triangle]04-6[Circle]76-1Yellow89-78- YellowMenthol, racemicHalf Green141773Helvetolide[Triangle]1[Circle]-73-1Yellow1335- YellowMethy lononeYellow66-25- Hexanal[Triangle]46-2[Triangle]1Methyl 2-nonenoateHalf Green123- YellowHexanoic acid, ethyl ester[Triangle]79-5[Circle]66-0Yellow111- YellowMethyl 2-nonynoateHalf Green142- Hexyl acetate[Triangle]80-8[Circle]92-7Yellow93-58- YellowMethyl benzoateYellow6259-Hexyl Salicylate[Triangle]3	Half Green	104-	gamma-Octalactone	[Triangle]	95-7	
Triangle	[Circle]	50-7		Yellow	2216-	L-Menthol
Half Green104- [Circle]Gamma-undecalactone[Triangle]72-9[Circle]67-6Yellow1490- YellowMentholGreen102- [Circle]Glycerol triacetate[Triangle]04-6[Circle]76-1Yellow89-78- YellowMenthol, racemicHalf Green141773Helvetolide[Triangle]1[Circle]-73-1Yellow1335- YellowMethy lononeYellow66-25- Hexanal[Triangle]46-2[Triangle]11- YellowMethyl 2-nonenoateHalf Green123- YellowHexanoic acid, ethyl ester[Triangle]79-5[Circle]66-0Yellow111- YellowMethyl 2-nonynoateHalf Green142- YellowHexyl acetate[Triangle]80-8[Circle]92-7Yellow93-58- YellowMethyl benzoateYellow6259-Hexyl Salicylate[Triangle]3	Yellow	99-85-	gamma-Terpinene	[Triangle]	51-5	
[Circle]67-6Yellow1490- (Triangle)MentholGreen102- (Circle)Glycerol triacetate[Triangle]04-6[Circle]76-1Yellow89-78- YellowMenthol, racemicHalf Green141773Helvetolide[Triangle]1[Circle]-73-1Yellow1335- YellowMethy lononeYellow66-25- Hexanal[Triangle]46-2[Triangle]1Yellow111- YellowMethyl 2-nonenoateHalf Green123- Hexanoic acid, ethyl ester[Triangle]79-5[Circle]66-0Yellow111- YellowMethyl 2-nonynoateHalf Green142- YellowHexyl acetate[Triangle]80-8[Circle]92-7Yellow93-58- YellowMethyl benzoateYellow6259-Hexyl Salicylate[Triangle]3	[Triangle]	4		Yellow	106-	Melonal
Green102- [Circle]Glycerol triacetate[Triangle]04-6[Circle]76-1Yellow89-78- YellowMenthol, racemicHalf Green141773Helvetolide[Triangle]1[Circle]-73-1Yellow1335- YellowMethy lononeYellow66-25- Triangle]Hexanal[Triangle]46-2[Triangle]1Yellow111- YellowMethyl 2-nonenoateHalf Green123- YellowHexanoic acid, ethyl ester[Triangle]79-5[Circle]66-0Yellow111- YellowMethyl 2-nonynoateHalf Green142- YellowHexyl acetate[Triangle]80-8[Circle]92-7Yellow93-58- YellowMethyl benzoateYellow6259-Hexyl Salicylate[Triangle]3	Half Green	104-	Gamma-undecalactone	[Triangle]	72-9	
[Circle]76-1Yellow89-78-Menthol, racemicHalf Green141773Helvetolide[Triangle]1[Circle]-73-1Yellow1335-Methy lononeYellow66-25-Hexanal[Triangle]46-2[Triangle]1Yellow111-Methyl 2-nonenoateHalf Green123-Hexanoic acid, ethyl ester[Triangle]79-5[Circle]66-0Yellow111-Methyl 2-nonynoateHalf Green142-Hexyl acetate[Triangle]80-8[Circle]92-7Yellow93-58-Methyl benzoateYellow6259-Hexyl Salicylate[Triangle]3	[Circle]	67-6		Yellow	1490-	Menthol
Half Green 141773 Helvetolide [Triangle] 1 [Circle] -73-1 Yellow 1335- Methy lonone Yellow 66-25- Hexanal [Triangle] 46-2 [Triangle] 1 Yellow 111- Methyl 2-nonenoate Half Green 123- Hexanoic acid, ethyl ester [Triangle] 79-5 [Circle] 66-0 Yellow 111- Methyl 2-nonynoate Half Green 142- Hexyl acetate [Triangle] 80-8 [Circle] 92-7 Yellow 93-58- Methyl benzoate Yellow 6259- Hexyl Salicylate [Triangle] 3	Green	102-	Glycerol triacetate	[Triangle]	04-6	
[Circle]-73-1Yellow1335-Methy lononeYellow66-25-Hexanal[Triangle]46-2[Triangle]1Yellow111-Methyl 2-nonenoateHalf Green123-Hexanoic acid, ethyl ester[Triangle]79-5[Circle]66-0Yellow111-Methyl 2-nonynoateHalf Green142-Hexyl acetate[Triangle]80-8[Circle]92-7Yellow93-58-Methyl benzoateYellow6259-Hexyl Salicylate[Triangle]3	[Circle]	76-1		Yellow	89-78-	Menthol, racemic
Yellow66-25- [Triangle]Hexanal[Triangle]46-2[Triangle]1Yellow111- YellowMethyl 2-nonenoateHalf Green123- [Circle]Hexanoic acid, ethyl ester[Triangle]79-5[Circle]66-0 Half GreenYellow111- YellowMethyl 2-nonynoate[Circle]92-7Yellow93-58- YellowMethyl benzoateYellow6259-Hexyl Salicylate[Triangle]3	Half Green	141773	Helvetolide	[Triangle]	1	
[Triangle]1Yellow111-Methyl 2-nonenoateHalf Green123-Hexanoic acid, ethyl ester[Triangle]79-5[Circle]66-0Yellow111-Methyl 2-nonynoateHalf Green142-Hexyl acetate[Triangle]80-8[Circle]92-7Yellow93-58-Methyl benzoateYellow6259-Hexyl Salicylate[Triangle]3	[Circle]	-73-1		Yellow	1335-	Methy lonone
Half Green123- [Circle]Hexanoic acid, ethyl ester[Triangle]79-5[Circle]66-0Yellow111- [Triangle]Methyl 2-nonynoateHalf Green142- [Circle]Hexyl acetate[Triangle]80-8[Circle]92-7Yellow93-58- [Triangle]Methyl benzoateYellow6259-Hexyl Salicylate[Triangle]3	Yellow	66-25-	Hexanal	[Triangle]	46-2	
[Circle]66-0Yellow111-Methyl 2-nonynoateHalf Green142-Hexyl acetate[Triangle]80-8[Circle]92-7Yellow93-58-Methyl benzoateYellow6259-Hexyl Salicylate[Triangle]3	[Triangle]	1			111-	Methyl 2-nonenoate
Half Green142-Hexyl acetate[Triangle]80-8[Circle]92-7Yellow93-58-Methyl benzoateYellow6259-Hexyl Salicylate[Triangle]3	Half Green	123-	Hexanoic acid, ethyl ester	[Triangle]	79-5	
[Circle] 92-7 Yellow 93-58- Methyl benzoate Yellow 6259- Hexyl Salicylate [Triangle] 3	[Circle]	66-0			111-	Methyl 2-nonynoate
Yellow 6259- Hexyl Salicylate [Triangle] 3	Half Green	142-	Hexyl acetate	[Triangle]	80-8	
, , ,	[Circle]	92-7		Yellow	93-58-	Methyl benzoate
[Triangle] 76-3	Yellow	6259-	Hexyl Salicylate	[Triangle]	3	
	[Triangle]	76-3				

Yellow [Triangle]	79-89- 0	Methyl delta-ionone	Half Green [Circle]	8007- 35-0	Terpineol acetate
Green	24851-	Methyl dihydrojasmonate	Yellow	586-	Terpinolene
[Circle]	98-7		[Triangle]	62-9	
Yellow	111-	Methyl undecylenate	Half Green	80-26-	Terpinyl acetate
[Triangle]	81-9		[Circle]	2	
Half Green	54982-	Muskonate	Yellow	78-69-	Tetrahydrolinalool
[Circle]	83-1	•	[Triangle]	3	
Half Green	543-	Myrcenol	Yellow	928-	trans-3-Hexenol
[Circle]	39-5	N 141 1 2 4	[Triangle]	97-2	- :
Yellow	93-18-	Naphthalene, 2-ethoxy-	Yellow	17511-	Tricyclodecenyl propionate
[Triangle]	5	Nachthalana 2 mathama	[Triangle]	60-3	Totallad stance
Yellow	93-04-	Naphthalene, 2-methoxy-	Yellow	77-93-	Triethyl citrate
[Triangle]	9	Negeral	[Triangle]	0	Hadaaaal
Yellow	124-	Nonanal	Yellow	112-	Undecanal
[Triangle]	19-6	Ostanal	[Triangle]	44-7 121	Vanillin
Yellow	124-	Octanal	Green	121-	Vanillin
[Triangle]	13-0	Oatulaaatata	[Circle]	33-5	Versilled contains
Yellow	112-	Octyl acetate	Yellow	122-	Vanillyl acetone
[Triangle]	14-1	Oversyalah antadasan 3 asa	[Triangle]	48-5	Vanday
Half Green	109-	Oxacycloheptadecan-2-one	Yellow	88-41-	Verdox
[Circle]	29-5	Overvelsh synder 12 on 2 one	[Triangle]	5	Voudul postata
Yellow	111879	Oxacyclohexadec-12-en-2-one,	Yellow	5413-	Verdyl acetate
[Triangle] Yellow	-80-2 111879	(12E)-	[Triangle] Oxidants an	60-5	***
[Triangle]	-79-9	Oxacyclohexadec-12-en-2-one, (12Z)-			
Yellow	-79-9 99219-	Oxacyclohexadec-13-en-2-one,	Yellow	6419-	Aminotrimethylene phosphonic
renow	33213-	Oxacycionexadec-15-en-2-one,	[Triangle]	19-8	acid
[Triangle]	22-6	/12E_	Vallann	22042	Diathlanatuia main anamata/maathlan
[Triangle]	32-6 111970	(13E)- Ovacyclohevadec-13-en-2-ene	Yellow	22042-	Diethylenetriaminepenta(methylen
Yellow	111879	Oxacyclohexadec-13-en-2-one,	Yellow [Triangle]	22042- 96-2	Diethylenetriaminepenta(methylen ephosphonic acid), sodium salt
Yellow [Triangle]	111879 -81-3	Oxacyclohexadec-13-en-2-one, (13Z)-	[Triangle]	96-2	ephosphonic acid), sodium salt
Yellow [Triangle] Half Green	111879 -81-3 106-	Oxacyclohexadec-13-en-2-one,	[Triangle] Yellow	96-2 12027-	
Yellow [Triangle] Half Green [Circle]	111879 -81-3 106- 02-5	Oxacyclohexadec-13-en-2-one, (13Z)- Oxacyclohexadecan-2-one	[Triangle] Yellow [Triangle]	96-2 12027- 70-2	ephosphonic acid), sodium salt Disodium tin hexahydrate
Yellow [Triangle] Half Green [Circle] Yellow	111879 -81-3 106- 02-5 69103-	Oxacyclohexadec-13-en-2-one, (13Z)- Oxacyclohexadecan-2-one Oxirane, 2,2-dimethyl-3-(3-methyl-	[Triangle] Yellow [Triangle] Green	96-2 12027- 70-2 7722-	ephosphonic acid), sodium salt
Yellow [Triangle] Half Green [Circle] Yellow [Triangle]	111879 -81-3 106- 02-5 69103- 20-4	Oxacyclohexadec-13-en-2-one, (13Z)- Oxacyclohexadecan-2-one Oxirane, 2,2-dimethyl-3-(3-methyl-2,4-pentadien-1-yl)-	[Triangle] Yellow [Triangle] Green [Circle]	96-2 12027- 70-2 7722- 84-1	ephosphonic acid), sodium salt Disodium tin hexahydrate Hydrogen peroxide
Yellow [Triangle] Half Green [Circle] Yellow [Triangle] Yellow	111879 -81-3 106- 02-5 69103- 20-4 67634-	Oxacyclohexadec-13-en-2-one, (13Z)- Oxacyclohexadecan-2-one Oxirane, 2,2-dimethyl-3-(3-methyl-2,4-pentadien-1-yl)- p-Ethyl-alpha,alpha-dimethyl-	[Triangle] Yellow [Triangle] Green [Circle] Yellow	96-2 12027- 70-2 7722- 84-1 13598-	ephosphonic acid), sodium salt Disodium tin hexahydrate
Yellow [Triangle] Half Green [Circle] Yellow [Triangle]	111879 -81-3 106- 02-5 69103- 20-4	Oxacyclohexadec-13-en-2-one, (13Z)- Oxacyclohexadecan-2-one Oxirane, 2,2-dimethyl-3-(3-methyl-2,4-pentadien-1-yl)-	[Triangle] Yellow [Triangle] Green [Circle] Yellow [Triangle]	96-2 12027- 70-2 7722- 84-1 13598- 36-2	ephosphonic acid), sodium salt Disodium tin hexahydrate Hydrogen peroxide Phosphonic acid
Yellow [Triangle] Half Green [Circle] Yellow [Triangle] Yellow [Triangle]	111879 -81-3 106- 02-5 69103- 20-4 67634- 14-4	Oxacyclohexadec-13-en-2-one, (13Z)- Oxacyclohexadecan-2-one Oxirane, 2,2-dimethyl-3-(3-methyl-2,4-pentadien-1-yl)- p-Ethyl-alpha,alpha-dimethyl-hydrocinnamaldehyde	[Triangle] Yellow [Triangle] Green [Circle] Yellow [Triangle] Yellow	96-2 12027- 70-2 7722- 84-1 13598- 36-2 7664-	ephosphonic acid), sodium salt Disodium tin hexahydrate Hydrogen peroxide
Yellow [Triangle] Half Green [Circle] Yellow [Triangle] Yellow [Triangle]	111879 -81-3 106- 02-5 69103- 20-4 67634- 14-4	Oxacyclohexadec-13-en-2-one, (13Z)- Oxacyclohexadecan-2-one Oxirane, 2,2-dimethyl-3-(3-methyl-2,4-pentadien-1-yl)- p-Ethyl-alpha,alpha-dimethyl-hydrocinnamaldehyde Propanoic acid, 2-methyl-,	[Triangle] Yellow [Triangle] Green [Circle] Yellow [Triangle] Yellow [Triangle]	96-2 12027- 70-2 7722- 84-1 13598- 36-2 7664- 38-2	ephosphonic acid), sodium salt Disodium tin hexahydrate Hydrogen peroxide Phosphonic acid Phosphoric acid
Yellow [Triangle] Half Green [Circle] Yellow [Triangle] Yellow [Triangle]	111879 -81-3 106- 02-5 69103- 20-4 67634- 14-4	Oxacyclohexadec-13-en-2-one, (13Z)- Oxacyclohexadecan-2-one Oxirane, 2,2-dimethyl-3-(3-methyl-2,4-pentadien-1-yl)- p-Ethyl-alpha,alpha-dimethyl-hydrocinnamaldehyde Propanoic acid, 2-methyl-, 3a,4,5,6,7,7a-hexahydro-4,7-	[Triangle] Yellow [Triangle] Green [Circle] Yellow [Triangle] Yellow [Triangle] Yellow	96-2 12027- 70-2 7722- 84-1 13598- 36-2 7664- 38-2 10294-	ephosphonic acid), sodium salt Disodium tin hexahydrate Hydrogen peroxide Phosphonic acid
Yellow [Triangle] Half Green [Circle] Yellow [Triangle] Yellow [Triangle]	111879 -81-3 106- 02-5 69103- 20-4 67634- 14-4	Oxacyclohexadec-13-en-2-one, (13Z)- Oxacyclohexadecan-2-one Oxirane, 2,2-dimethyl-3-(3-methyl-2,4-pentadien-1-yl)- p-Ethyl-alpha,alpha-dimethyl-hydrocinnamaldehyde Propanoic acid, 2-methyl-,	[Triangle] Yellow [Triangle] Green [Circle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle]	96-2 12027- 70-2 7722- 84-1 13598- 36-2 7664- 38-2 10294- 56-1	ephosphonic acid), sodium salt Disodium tin hexahydrate Hydrogen peroxide Phosphonic acid Phosphoric acid Phosphorous acid
Yellow [Triangle] Half Green [Circle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle]	111879 -81-3 106- 02-5 69103- 20-4 67634- 14-4 67634- 20-2	Oxacyclohexadec-13-en-2-one, (13Z)- Oxacyclohexadecan-2-one Oxirane, 2,2-dimethyl-3-(3-methyl-2,4-pentadien-1-yl)- p-Ethyl-alpha,alpha-dimethyl-hydrocinnamaldehyde Propanoic acid, 2-methyl-, 3a,4,5,6,7,7a-hexahydro-4,7-methano-1H-inden-5-yl ester	Yellow [Triangle] Green [Circle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Yellow	96-2 12027- 70-2 7722- 84-1 13598- 36-2 7664- 38-2 10294- 56-1 12142-	ephosphonic acid), sodium salt Disodium tin hexahydrate Hydrogen peroxide Phosphonic acid Phosphoric acid
Yellow [Triangle] Half Green [Circle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle]	111879 -81-3 106- 02-5 69103- 20-4 67634- 14-4 67634- 20-2	Oxacyclohexadec-13-en-2-one, (13Z)- Oxacyclohexadecan-2-one Oxirane, 2,2-dimethyl-3-(3-methyl-2,4-pentadien-1-yl)- p-Ethyl-alpha,alpha-dimethyl-hydrocinnamaldehyde Propanoic acid, 2-methyl-, 3a,4,5,6,7,7a-hexahydro-4,7-methano-1H-inden-5-yl ester Propanoic acid, 2-methyl-,	Yellow [Triangle] Green [Circle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle]	96-2 12027- 70-2 7722- 84-1 13598- 36-2 7664- 38-2 10294- 56-1 12142- 33-5	ephosphonic acid), sodium salt Disodium tin hexahydrate Hydrogen peroxide Phosphonic acid Phosphoric acid Phosphorous acid Potassium stannate
Yellow [Triangle] Half Green [Circle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle]	111879 -81-3 106- 02-5 69103- 20-4 67634- 14-4 67634- 20-2	Oxacyclohexadec-13-en-2-one, (13Z)- Oxacyclohexadecan-2-one Oxirane, 2,2-dimethyl-3-(3-methyl-2,4-pentadien-1-yl)- p-Ethyl-alpha,alpha-dimethyl- hydrocinnamaldehyde Propanoic acid, 2-methyl-, 3a,4,5,6,7,7a-hexahydro-4,7- methano-1H-inden-5-yl ester Propanoic acid, 2-methyl-, 3a,4,5,6,7,7a-hexahydro-4,7-	[Triangle] Yellow [Triangle] Green [Circle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Yellow	96-2 12027- 70-2 7722- 84-1 13598- 36-2 7664- 38-2 10294- 56-1 12142- 33-5 7758-	ephosphonic acid), sodium salt Disodium tin hexahydrate Hydrogen peroxide Phosphonic acid Phosphoric acid Phosphorous acid
Yellow [Triangle] Half Green [Circle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle]	111879 -81-3 106- 02-5 69103- 20-4 67634- 14-4 67634- 20-2	Oxacyclohexadec-13-en-2-one, (13Z)- Oxacyclohexadecan-2-one Oxirane, 2,2-dimethyl-3-(3-methyl-2,4-pentadien-1-yl)- p-Ethyl-alpha,alpha-dimethyl-hydrocinnamaldehyde Propanoic acid, 2-methyl-, 3a,4,5,6,7,7a-hexahydro-4,7-methano-1H-inden-5-yl ester Propanoic acid, 2-methyl-,	Yellow [Triangle] Green [Circle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle]	96-2 12027- 70-2 7722- 84-1 13598- 36-2 7664- 38-2 10294- 56-1 12142- 33-5 7758- 16-9	ephosphonic acid), sodium salt Disodium tin hexahydrate Hydrogen peroxide Phosphonic acid Phosphoric acid Phosphorous acid Potassium stannate Sodium acid pyrophosphate
Yellow [Triangle] Half Green [Circle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle]	111879 -81-3 106- 02-5 69103- 20-4 67634- 14-4 67634- 20-2	Oxacyclohexadec-13-en-2-one, (13Z)- Oxacyclohexadecan-2-one Oxirane, 2,2-dimethyl-3-(3-methyl-2,4-pentadien-1-yl)- p-Ethyl-alpha,alpha-dimethyl-hydrocinnamaldehyde Propanoic acid, 2-methyl-, 3a,4,5,6,7,7a-hexahydro-4,7- methano-1H-inden-5-yl ester Propanoic acid, 2-methyl-, 3a,4,5,6,7,7a-hexahydro-4,7- methano-1H-inden-6-yl ester	Yellow [Triangle] Green [Circle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Yellow	96-2 12027- 70-2 7722- 84-1 13598- 36-2 7664- 38-2 10294- 56-1 12142- 33-5 7758- 16-9 7631-	ephosphonic acid), sodium salt Disodium tin hexahydrate Hydrogen peroxide Phosphonic acid Phosphoric acid Phosphorous acid Potassium stannate
Yellow [Triangle] Half Green [Circle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Half Green	111879 -81-3 106- 02-5 69103- 20-4 67634- 14-4 67634- 20-2 68039- 39-4	Oxacyclohexadec-13-en-2-one, (13Z)- Oxacyclohexadecan-2-one Oxirane, 2,2-dimethyl-3-(3-methyl-2,4-pentadien-1-yl)- p-Ethyl-alpha,alpha-dimethyl- hydrocinnamaldehyde Propanoic acid, 2-methyl-, 3a,4,5,6,7,7a-hexahydro-4,7- methano-1H-inden-5-yl ester Propanoic acid, 2-methyl-, 3a,4,5,6,7,7a-hexahydro-4,7-	Yellow [Triangle] Green [Circle] Yellow [Triangle]	96-2 12027- 70-2 7722- 84-1 13598- 36-2 7664- 38-2 10294- 56-1 12142- 33-5 7758- 16-9 7631- 99-4	ephosphonic acid), sodium salt Disodium tin hexahydrate Hydrogen peroxide Phosphonic acid Phosphoric acid Phosphorous acid Potassium stannate Sodium acid pyrophosphate Sodium nitrate
Yellow [Triangle] Half Green [Circle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Half Green [Circle]	111879 -81-3 106- 02-5 69103- 20-4 67634- 14-4 67634- 20-2 68039- 39-4	Oxacyclohexadec-13-en-2-one, (13Z)- Oxacyclohexadecan-2-one Oxirane, 2,2-dimethyl-3-(3-methyl-2,4-pentadien-1-yl)- p-Ethyl-alpha,alpha-dimethyl-hydrocinnamaldehyde Propanoic acid, 2-methyl-, 3a,4,5,6,7,7a-hexahydro-4,7- methano-1H-inden-5-yl ester Propanoic acid, 2-methyl-, 3a,4,5,6,7,7a-hexahydro-4,7- methano-1H-inden-6-yl ester Sandalore	Yellow [Triangle] Green [Circle] Yellow [Triangle] Yellow	96-2 12027- 70-2 7722- 84-1 13598- 36-2 7664- 38-2 10294- 56-1 12142- 33-5 7758- 16-9 7631- 99-4 15630-	ephosphonic acid), sodium salt Disodium tin hexahydrate Hydrogen peroxide Phosphonic acid Phosphoric acid Phosphorous acid Potassium stannate Sodium acid pyrophosphate
Yellow [Triangle] Half Green [Circle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Half Green [Circle] Yellow	111879 -81-3 106- 02-5 69103- 20-4 67634- 14-4 67634- 20-2 68039- 39-4	Oxacyclohexadec-13-en-2-one, (13Z)- Oxacyclohexadecan-2-one Oxirane, 2,2-dimethyl-3-(3-methyl-2,4-pentadien-1-yl)- p-Ethyl-alpha,alpha-dimethyl-hydrocinnamaldehyde Propanoic acid, 2-methyl-, 3a,4,5,6,7,7a-hexahydro-4,7- methano-1H-inden-5-yl ester Propanoic acid, 2-methyl-, 3a,4,5,6,7,7a-hexahydro-4,7- methano-1H-inden-6-yl ester	Yellow [Triangle] Green [Circle] Yellow [Triangle] Green [Circle]	96-2 12027- 70-2 7722- 84-1 13598- 36-2 7664- 38-2 10294- 56-1 12142- 33-5 7758- 16-9 7631- 99-4 15630- 89-4	ephosphonic acid), sodium salt Disodium tin hexahydrate Hydrogen peroxide Phosphonic acid Phosphoric acid Phosphorous acid Potassium stannate Sodium acid pyrophosphate Sodium percarbonate
Yellow [Triangle] Half Green [Circle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Half Green [Circle] Yellow [Triangle]	111879 -81-3 106- 02-5 69103- 20-4 67634- 14-4 67634- 20-2 68039- 39-4 65113- 99-7 86803- 90-9	Oxacyclohexadec-13-en-2-one, (13Z)- Oxacyclohexadecan-2-one Oxirane, 2,2-dimethyl-3-(3-methyl-2,4-pentadien-1-yl)- p-Ethyl-alpha,alpha-dimethyl- hydrocinnamaldehyde Propanoic acid, 2-methyl-, 3a,4,5,6,7,7a-hexahydro-4,7- methano-1H-inden-5-yl ester Propanoic acid, 2-methyl-, 3a,4,5,6,7,7a-hexahydro-4,7- methano-1H-inden-6-yl ester Sandalore Scentenal	Yellow [Triangle] Green [Circle] Yellow [Triangle] Green [Circle] Green	96-2 12027- 70-2 7722- 84-1 13598- 36-2 7664- 38-2 10294- 56-1 12142- 33-5 7758- 16-9 7631- 99-4 15630- 89-4 7775-	ephosphonic acid), sodium salt Disodium tin hexahydrate Hydrogen peroxide Phosphonic acid Phosphoric acid Phosphorous acid Potassium stannate Sodium acid pyrophosphate Sodium nitrate
Yellow [Triangle] Half Green [Circle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Half Green [Circle] Yellow [Triangle] Yellow	111879 -81-3 106- 02-5 69103- 20-4 67634- 14-4 67634- 20-2 68039- 39-4 65113- 99-7 86803- 90-9 8008-	Oxacyclohexadec-13-en-2-one, (13Z)- Oxacyclohexadecan-2-one Oxirane, 2,2-dimethyl-3-(3-methyl-2,4-pentadien-1-yl)- p-Ethyl-alpha,alpha-dimethyl-hydrocinnamaldehyde Propanoic acid, 2-methyl-, 3a,4,5,6,7,7a-hexahydro-4,7- methano-1H-inden-5-yl ester Propanoic acid, 2-methyl-, 3a,4,5,6,7,7a-hexahydro-4,7- methano-1H-inden-6-yl ester Sandalore	Yellow [Triangle] Green [Circle] Yellow [Triangle] Green [Circle] Green [Circle]	96-2 12027- 70-2 7722- 84-1 13598- 36-2 7664- 38-2 10294- 56-1 12142- 33-5 7758- 16-9 7631- 99-4 15630- 89-4 7775- 27-1	ephosphonic acid), sodium salt Disodium tin hexahydrate Hydrogen peroxide Phosphonic acid Phosphoric acid Phosphorous acid Potassium stannate Sodium acid pyrophosphate Sodium percarbonate Sodium peroxydisulfate
Yellow [Triangle] Half Green [Circle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Half Green [Circle] Yellow [Triangle] Yellow [Triangle]	111879 -81-3 106- 02-5 69103- 20-4 67634- 14-4 67634- 20-2 68039- 39-4 65113- 99-7 86803- 90-9 8008- 57-9	Oxacyclohexadec-13-en-2-one, (13Z)- Oxacyclohexadecan-2-one Oxirane, 2,2-dimethyl-3-(3-methyl-2,4-pentadien-1-yl)- p-Ethyl-alpha,alpha-dimethyl-hydrocinnamaldehyde Propanoic acid, 2-methyl-, 3a,4,5,6,7,7a-hexahydro-4,7- methano-1H-inden-5-yl ester Propanoic acid, 2-methyl-, 3a,4,5,6,7,7a-hexahydro-4,7- methano-1H-inden-6-yl ester Sandalore Scentenal Sweet orange oil	Yellow [Triangle] Green [Circle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Green [Circle] Green [Circle] Yellow	96-2 12027- 70-2 7722- 84-1 13598- 36-2 7664- 38-2 10294- 56-1 12142- 33-5 7758- 16-9 7631- 99-4 15630- 89-4 7775- 27-1 7722-	ephosphonic acid), sodium salt Disodium tin hexahydrate Hydrogen peroxide Phosphonic acid Phosphoric acid Phosphorous acid Potassium stannate Sodium acid pyrophosphate Sodium percarbonate
Yellow [Triangle] Half Green [Circle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Yellow [Triangle] Half Green [Circle] Yellow [Triangle] Yellow	111879 -81-3 106- 02-5 69103- 20-4 67634- 14-4 67634- 20-2 68039- 39-4 65113- 99-7 86803- 90-9 8008-	Oxacyclohexadec-13-en-2-one, (13Z)- Oxacyclohexadecan-2-one Oxirane, 2,2-dimethyl-3-(3-methyl-2,4-pentadien-1-yl)- p-Ethyl-alpha,alpha-dimethyl- hydrocinnamaldehyde Propanoic acid, 2-methyl-, 3a,4,5,6,7,7a-hexahydro-4,7- methano-1H-inden-5-yl ester Propanoic acid, 2-methyl-, 3a,4,5,6,7,7a-hexahydro-4,7- methano-1H-inden-6-yl ester Sandalore Scentenal	Yellow [Triangle] Green [Circle] Yellow [Triangle] Green [Circle] Green [Circle]	96-2 12027- 70-2 7722- 84-1 13598- 36-2 7664- 38-2 10294- 56-1 12142- 33-5 7758- 16-9 7631- 99-4 15630- 89-4 7775- 27-1	ephosphonic acid), sodium salt Disodium tin hexahydrate Hydrogen peroxide Phosphonic acid Phosphoric acid Phosphorous acid Potassium stannate Sodium acid pyrophosphate Sodium percarbonate Sodium peroxydisulfate

Yellow [Triangle] Yellow	12058- 66-1 7758-	Sodium stannate Sodium tripolyphosphate	Green [Circle]	28205- 96-1	2-Propenoic acid, 2-methyl-, polymer with 2-propenoic acid, sodium salt
[Triangle] Yellow [Triangle] Yellow	29-4 10543- 57-4 7320-	Tetraacetyl ethylene diamine Tetrapotassium pyrophosphate	Green [Circle]	25950- 40-7	2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2- propenoate, butyl 2-propenoate, ethenylbenzene and methyl 2-
[Triangle] Polymers	34-5				methyl-2-propenoate
Green [Circle]	25722- 45-6	2,5-Furandione, polymer with 1- propene	Green	25035-	2-Propenoic acid, 2-methyl-,
Green	37199-	2,5-Furandione, polymer with	[Circle]	82-9	polymer with butyl 2-propenoate
[Circle]	81-8	2,4,4-trimethylpentene, sodium			
		salt	Green [Circle]	25036- 16-2	2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate
Green [Circle]	26022- 09-3	2,5-Furandione, polymer with ethenylbenzene, ammonium salt	Creen	25025	and ethenylbenzene
Green	52720-	2,5-Furandione, telomer with	Green [Circle]	25035- 69-2	2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate
[Circle]	34-0	ethenylbenzene and (1- methylethyl)benzene, ammonium			and methyl 2-methyl-2-propenoate
		salt	Green	94031-	2-Propenoic acid, 2-methyl-,
Green	52500-	2,5-Furandione, telomer with	[Circle]	39-7	polymer with butyl 2-propenoate,
[Circle]	92-2	ethenylbenzene and (1- methylethyl)benzene, sodium salt			(1-methylethenyl)benzene and methyl 2-methyl-2-propenoate
Green	29132-	2-Butenedioic acid (2Z)-, polymer			
[Circle]	58-9	with 2-propenoic acid	Green [Circle]	67892- 91-5	2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate,
Green [Circle]	25322- 99-0	2-Propenoic acid, 2-methyl-, butyl ester, polymer with butyl 2-propenoate and methyl 2-methyl-2-propenoate			ethene, ethenylbenzene, ethyl 2- propenoate and methyl 2-methyl- 2-propenoate
		P. Shares	Green	25987-	2-Propenoic acid, 2-methyl-,
Green	25213-	2-Propenoic acid, 2-methyl-, butyl	[Circle]	66-0	polymer with butyl 2-propenoate,
[Circle]	39-2	ester, polymer with ethenylbenzene			ethenylbenzene and methyl 2- methyl-2-propenoate
Green [Circle]	25608- 33-7	2-Propenoic acid, 2-methyl-, butyl ester, polymer with methyl 2-			
[Circic]	33 7	methyl-2-propenoate	Green	137899	2-Propenoic acid, 2-methyl-,
			[Circle]	-00-4	polymer with butyl 2-propenoate,
Green	65405-	2-Propenoic acid, 2-methyl-,			ethenylbenzene and methyl 2-
[Circle]	40-5	dodecyl ester, polymer with			methyl-2-propenoate, calcium salt
		hexadecyl 2-methyl-2-propenoate, octadecyl 2-methyl-2-propenoate			
		and tetradecyl 2-methyl-2-	Green	63744-	2-Propenoic acid, 2-methyl-,
		propenoate	[Circle]	68-3	polymer with butyl 2-propenoate, ethenylbenzene, ethyl 2-
Green	25767-	2-Propenoic acid, 2-methyl-,			propenoate and methyl 2-methyl-
[Circle]	39-9	methyl ester, polymer with ethenylbenzene and 2-propenoic acid			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]	26099- 88-7	Butanedioic acid, 2-methylene-, polymer with 2-propenoic acid, sodium salt
Green [Circle] Green [Circle]	9010- 92-8 25035- 81-8	2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene and methyl 2-methyl-2-propenoate	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]	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-	Green [Circle] Green [Circle]	68441- 17-8 9010- 77-9	Ethene, homopolymer, oxidized Ethylene/acrylic acid copolymer
		propenoate)	Green [Circle]	31694- 55-0	Glycerol poly(oxyethylene) ether
Green [Circle]	25212- 88-8	2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate	Green [Circle]	70142- 34-6	Octadecanoic acid, 12-hydroxy-, polymer with alpha-hydro-omega-hydroxypoly(oxy-1,2-ethanediyl)
Green [Circle]	25086- 15-1	2-Propenoic acid, 2-methyl-, polymer with methyl 2-methyl-2- propenoate	Green	9003-	Polybutene
Green [Circle]	70879- 60-6	2-Propenoic acid, 2-methyl-, polymers with Et acrylate and	[Circle] Green	29-6 25322-	Polyethylene glycol
		polyethylene glycol methacrylate C16-18-alkyl ethers methacrylic acid polymer	[Circle] Green [Circle]	68-3 26099- 09-2	Polymaleic acid
Green [Circle]	9003- 01-4	2-Propenoic acid, homopolymer	Green [Circle] Green	25087- 26-7 9003-	Polymethacrylic acid Polypropylene
Green [Circle]	9003- 04-7	2-Propenoic acid, homopolymer, sodium salt	[Circle] Green	07-0 9002-	Polyvinyl alcohol
Green [Circle]	52255- 49-9	2-Propenoic acid, polymer with2,5-furandione, sodium salt	[Circle] Green [Circle]	89-5 9003- 39-8	Polyvinylpyrrolidone
Green [Circle]	31212- 13-2	2-Propenoic acid, potassium salt (1:1), polymer with 2-propenamide	Green [Circle]	8061- 51-6 25086-	Sodium ligninsulfonate Sodium polymethacrylate
Green	68479-	2-Propenoic acid, telomer with	Green [Circle] Green	62-8 54193-	Sodium polymethacrylate
[Circle]	09-4	sodium hydrogen sulfite, sodium salt	[Circle] Green	36-1 144399	Sorbitan oleate decylglucoside
Green [Circle] Green	66019- 18-9 71832-	2-Propenoic acid, telomer with sodium sulfite (1:1) Benzenesulfonic acid, hydroxy-,	[Circle] Green	4-56-6 25213-	crosspolymer Vinyl acetate vinyl alcohol polymer
[Circle]	81-0	sodium salt (1:1), polymer with formaldehyde and 4,4'-	[Circle] Preservativ	24-5	
		sulfonylbis[phenol]	Yellow [Triangle]	2634- 33-5	1,2-Benzisothiazol-3(2H)-one

Green [Circle]	59-02- 9	alpha-Tocopherol	Green [Circle]	110- 44-1	Sorbic acid
Half Green [Circle]	137- 66-6	Ascorbyl palmitate	Green [Circle]	7695- 91-2	Tocopherol acetate
Green [Circle]	65-85- 0	Benzoic acid	Yellow [Triangle]	112- 38-9	Undecylenic acid
Green [Circle]	582- 25-2	Benzoic acid, potassium salt	Green [Circle]	58-95- 7	Vitamin E acetate
Green	532-	Benzoic acid, sodium Salt	Processing		dditives
[Circle]	32-1	·	Green	64-19-	Acetic acid
Green	7492-	Calcium sorbate	[Circle]	7	
[Circle]	55-9		Green	97-30-	alpha-Methylglucoside
Green	1117-	Caprylyl glycol	[Circle]	3	70
[Circle]	86-8	. , , , , ,	Green	50-81-	Ascorbic acid
Yellow	520-	Dehydroacetic acid	[Circle]	7	
[Triangle]	45-6	•	Green	1302-	Bentonite
Yellow	7681-	Disulfurous acid, disodium salt	[Circle]	78-9	
[Triangle]	57-4	ŕ	Green	66402-	Calcined kaolin
Green	10191-	DL-alpha-Tocopherol	[Circle]	68-4	caremed Radim
[Circle]	41-0		Green	62-54-	Calcium acetate
Green	50-21-	DL-Lactic acid	[Circle]	4	Carolain acctate
[Circle]	5		Green	471-	Calcium carbonate
Green	64-18-	Formic acid	[Circle]	34-1	Calcium carbonate
[Circle]	6		Green	10043-	Calcium chloride, anhydrous
Half Green	91052-	Hydrogenated palm glycerides	[Circle]	52-4	Calcium emoriae, armyurous
[Circle]	16-3	citrate	Green	10035-	Calcium chloride, dihydrate
Green	79-33-	L-Lactic acid	[Circle]	04-8	Calcium chloride, dinydrate
[Circle]	4	E Edelie deld	Green	813-	Calcium citrate
Yellow	13446-	Magnesium (II) nitrate,	[Circle]	94-5	Calcium citrate
[Triangle]	18-9	hexahydrate	Green	544-	Calcium formate
Yellow	10377-	Magnesium nitrate	[Circle]	17-2	Calcium formate
[Triangle]	60-3	Wagnesiam merate	Green	1305-	Calcium hydroxide
Yellow	26172-	Methyl chloro isothiazolinone	[Circle]	62-0	Calcium nyuroxide
[Triangle]	55-4	Wethyremore isothazomone		76123-	Calcium magnosium asotato
Yellow	2682-	Methyl isothiazolinone	Green [Circle]	76123- 46-1	Calcium magnesium acetate
[Triangle]	20-4	Wethyrisothiazomione	Green	1344-	Calcium silicate
Green	6683-	Pentaerythritol, tetrakis(3,5-di-tert-	[Circle]	95-2	Calcium sincate
[Circle]	19-8	butyl-4-hydroxyhydrocinnamate)	Green	120962	Canola oil
[energy	13 0	Sucyr 4 myaroxymyarochinamate)	[Circle]	-03-0	Carloia Oii
Yellow	122-	Phenoxyethanol		9000-	Carragoonan
[Triangle]	99-6	Henoxyethanor	Green [Circle]	9000- 07-1	Carrageenan
Green	24634-	Potassium (E,E)-sorbate	[Circle]		Callulasa
[Circle]	61-5	r otassium (L,L) sorbate	Green [Circle]	9004- 34-6	Cellulose
Green	590-	Potassium sorbate			Callulasa 2 hudrayumranul mathul
[Circle]	00-1	1 Otassiam sorbate	Green [Circle]	9004- 65-3	Cellulose, 2-hydroxypropyl methyl
Green	68-04-	Sodium citrate, anhydrous			ether
[Circle]	2	200 am dia acc, amy arous	Green [Circle]	9004- 32-4	Cellulose, carboxymethyl ether, sodium salt
Green	6132-	Sodium citrate, dihydrate			
[Circle]	04-3	Journal of acc, uniquiate	Green [Circlo]	68442- 85-3	Cellulose, regenerated
Yellow	7631-	Sodium nitrate	[Circle]		Citric acid, anhydraus
[Triangle]	99-4	Journal Merate	Green [Circlo]	77-92-	Citric acid, anhydrous
Green	137-	Sodium propionate	[Circle]	9 5040	Citric acid manabudanta
[Circle]	40-6	Socialii propioliate	Green [Circle]	5949- 29-1	Citric acid, monohydrate

Green	8001-	Coconut oil	Green	7786-	Magnesium chloride, anhydrous
[Circle]	31-8	6 1.	[Circle]	30-3	
Green	66071-	Corn gluten protein	Green	7791-	Magnesium chloride, hexahydrate
[Circle]	96-3	6	[Circle]	18-6	
Green	8001-	Corn oil	Green	1309-	Magnesium hydroxide
[Circle]	30-7		[Circle]	42-8	
Green	8029-	Corn sugar syrup	Green	1309-	Magnesium oxide
[Circle]	43-4		[Circle]	48-4	
Green	334-	Decanoic Acid	Green	7487-	Magnesium sulfate, anhydrous
[Circle]	48-5		[Circle]	88-9	
Green	9004-	Dextrin	Green	10034-	Magnesium sulfate, heptahydrate
[Circle]	53-9		[Circle]	99-8	
Green	526-	D-Gluconic acid	Green	6915-	Malic acid
[Circle]	95-4		[Circle]	15-7	
Green	50-99-	D-Glucose	Green	9050-	Maltodextrin
[Circle]	7		[Circle]	36-6	
Green	3609-	Dipotassium hydrogen citrate	Green	75-75-	Methanesulfonic acid
[Circle]	96-9		[Circle]	2	
Green	13870-	Disodium disilicate	Green	9004-	Methyl cellulose
[Circle]	28-5		[Circle]	67-5	
Green	50-21-	DL-Lactic acid	Green	8052-	Molasses, blackstrap
[Circle]	5		[Circle]	35-5	
Green	64-18-	Formic acid	Green	37244-	Nepheline syenite
[Circle]	6		[Circle]	96-5	
Green	110-	Fumaric acid	Yellow	7697-	Nitric acid (aqueous)
[Circle]	17-8		[Triangle]	37-2	
Green	65997-	Glass fibers	Green	8001-	Olive oil
[Circle]	17-3		[Circle]	25-0	
Green	90-80-	Gluconolactone	Green	8002-	Palm oil
[Circle]	2		[Circle]	75-3	
Green	56-40-	Glycine	Half Green	133892	PEG-120 methyl glucose trioleate
[Circle]	6		[Circle]	9-66-0	
Green	9000-	Guar gum	Green	93763-	Perlite
[Circle]	30-0		[Circle]	70-3	
Half Green	12173-	Hectorite	Green	127-	Potassium acetate
[Circle]	47-6		[Circle]	08-2	
Yellow	7647-	Hydrochloric acid (aqueous)	Green	298-	Potassium bicarbonate
[Triangle]	01-0		[Circle]	14-6	
Green	9004-	Hydroxyethyl cellulose	Green	584-	Potassium carbonate, anhydrous
[Circle]	62-0		[Circle]	08-7	•
Green	9004-	Hydroxypropyl cellulose	Green	7447-	Potassium chloride
[Circle]	64-2		[Circle]	40-7	
Green	430439	Inulin, carboxymethyl ether,	Green	866-	Potassium citrate, anhydrous
[Circle]	-54-6	sodium salt	[Circle]	84-2	•
Green	1332-	Kaolin	Green	6100-	Potassium citrate, monohydrate
[Circle]	58-7		[Circle]	05-6	, , , , , , , , , , , , , , , , , , , ,
Green	1317-	Limestone	Green	1310-	Potassium hydroxide
[Circle]	65-3	3555	[Circle]	58-3	
Green	79-33-	L-Lactic acid	Green	996-	Potassium lactate
[Circle]	4		[Circle]	31-6	
Green	142-	Magnesium acetate	Green	1312-	Potassium silicate
[Circle]	72-3	agssam doctate	[Circle]	76-1	. Judgard Sincute
[00.0]	0		[00.0]		

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

Green	27138-	Dipropylene glycol dibenzoate	Green	112-	1-Dodecanol
[Circle]	31-4	DI Banthanal	[Circle]	53-8	1 Mothany 2 proposal
Half Green	16485-	DL-Panthenol	Green	107- 98-2	1-Methoxy-2-propanol
[Circle]	10-2	D. Danathan al	[Circle]		1 Dranavy 2 prepanel
Half Green	81-13-	D-Panthenol	Green	1569-	1-Propoxy-2-propanol
[Circle]	0	Fata and Charattin attached	[Circle]	01-3	1 11, 1, 1, 1, 1, 1, 1
Green	8024-	Fats and Glyceridic oils, avocado	Half Green	112-	1-Undecanol
[Circle]	32-6	Fata and Character attacks as	[Circle]	42-5	2.2 dimental 4.2 Diameters 4
Green	68553-	Fats and Glyceridic oils, rice bran	Green	100-	2,2-dimethyl-1,3-Dioxolane-4-
[Circle]	81-1	5	[Circle]	79-8	methanol
Green	8008-	Fats and Glyceridic oils, sesame	Green	107-	2-Methyl-2,4-pentanediol
[Circle]	74-0		[Circle]	41-5	2.44
Green	23351-	Glucoheptanoic acid	Green	4435-	3-Methoxybutyl acetate
[Circle]	51-1		[Circle]	53-4	
Green	67701-	Glycerides, C8-18 and C18-unsatd.	Green	56539-	3-Methyl-3-methoxybutanol
[Circle]	28-4		[Circle]	66-3	
Half Green	8001-	Linseed oil	Half Green	931-	4-Hydroxymethyl-1,3-dioxolan-2-
[Circle]	26-1		[Circle]	40-8	one
Half Green	63-68-	L-Methionine	Yellow	39202-	9-Dodecenoic acid, methyl ester
[Circle]	3		[Triangle]	17-0	
Green	111-	Methyl laurate	Green	67762-	Alcohols, C10-16
[Circle]	82-0		[Circle]	41-8	
Green	106457	Oils, oat	Half Green	66455-	Alcohols, C9-11
[Circle]	-91-4		[Circle]	17-2	
Green	68917-	Oils, wheat	Green	5405-	Butanoic acid, 3-hydroxy-, ethyl
[Circle]	73-7		[Circle]	41-4	ester
Half Green	79-83-	Panthothenic acid	Green	92011-	Butyl-3-hydroxy-2-methylbuyrate
[Circle]	4	Data asiwa alwasa ata	[Circle]	00-2	
Green	299-	Potassium gluconate	Green	53605-	Butyl-3-hydroxybutanoate
[Circle]	27-4 8001-	Safflower oil	[Circle]	94-0	
Green [Circlo]	23-8	Samower on	Green	68425-	Coconut alcohol
[Circle] Green	23-6 111-	Squalane	[Circle]	37-6	
[Circle]	01-3	Squalatic	Yellow	112-	Diethylene glycol mono-N-butyl
Green	8001-	Sunflower oil	[Triangle]	34-5	ether
[Circle]	21-6	Sumower on	Green	627-	Dimethyl adipate
Solvents	210		[Circle]	93-0	
Green	20324-	1-(2-Methoxy-1-methylethoxy)-2-	Green	14035-	Dimethyl ethylsuccinate
[Circle]	32-7	propanol	[Circle]	95-1	
Green	110-	1,1'-Dimethyldiethylene glycol	Green	1119-	Dimethyl glutarate
[Circle]	98-5	1,1 -Diffictifylatethylette glycol	[Circle]	40-0	
Green	584-	1,2-Butanediol	Green	106-	Dimethyl succinate
[Circle]	03-2	1,2 Butunedioi	[Circle]	65-0	
Green	6920-	1,2-Hexanediol	Green	25265-	Dipropylene glycol
[Circle]	22-5	1,2 Hexalicator	[Circle]	71-8	
Green	57-55-	1,2-Propanediol	Green	34590-	Dipropylene glycol methyl ether
[Circle]	6	1,2-i ropanedioi	[Circle]	94-8	5: 1 1 1 1 1 1
Green	107-	1,3-Butanediol	Yellow	29911-	Dipropylene glycol monobutyl
[Circle]	88-0	1,5 Dutaneuror	[Triangle]	28-2	ether Diagram of the state of t
Half Green	4437-	1,3-Dioxolan-2-one, 4-ethyl-	Yellow	29911-	Dipropylene glycol propyl ether
[Circle]	85-8	1,3 DIOADIAIT-2-DITE, 4-ELITYI-	[Triangle]	27-1	Dimension
Green	504-	1,3-Propanediol	Yellow	5989-	D-Limonene
[Circle]	63-2	1,5 i ropaneuloi	[Triangle]	27-5	
[Circle]	03-2				

Green [Circle]	64-17- 5	Ethanol	Green [Circle]	7732- 18-5	Water
Half Green [Circle]	97-64- 3	Ethyl lactate	Green [Circle]	8042- 47-5	White mineral oil, petroleum
Half Green	763-	Ethyl-3-ethoxy propionate	Specialized I	ndustrial (Chemicals
[Circle]	69-9		Yellow	27136-	1H-Imidazole-1-ethanol, 2-
Yellow	68937-	Fatty acids, C12-18, methyl esters	[Triangle]	73-8	(heptadecenyl)-4,5-dihydro-
[Triangle]	84-8		Yellow	1066-	Ammonium bicarbonate
Yellow	67762-	Fatty acids, C16-18 and C18-	[Triangle]	33-7	
[Triangle]	38-3	unsatd., methyl esters	Yellow	506-	Ammonium carbonate
Yellow	68919-	Fatty acids, soya, Me esters	[Triangle]	87-6	
[Triangle]	53-9		Yellow	1336-	Ammonium hydroxide
Green	73398-	Glycerides, mixed decanoyl and	[Triangle]	21-6	
[Circle]	61-5	octanoyl	Yellow	34455-	Amphoteric fluorinated surfactant
Green	56-81-	Glycerol	[Triangle]	29-3	·
[Circle]	5		Yellow	452080	Boron, trifluoro(tetrahydrofuran)-,
Green	67-63-	Isopropanol	[Triangle]	-64-7	(T-4)-, polymer with 3-methyl-3-
[Circle]	0				[(2,2,2-
Green	54074-	Isopropyl 3-hydroxybutyrate			trifluoroethoxy)methyl]oxetane,
[Circle]	94-1				ether with 2,2-dimethyl-1,3-
Half Green	110-	Isopropyl myristate			propanediol (2:1), bis(hydrogen
[Circle]	27-0				sulfate), diammonium salt
Green	111-	Methyl laurate			
[Circle]	82-0				
Green	14035-	Pentanedioic acid, 2-methyl-, 1,5-	Yellow	452080	Boron, trifluoro(tetrahydrofuran)-,
[Circle]	94-0	dimethyl ester	[Triangle]	-67-0	(T-4)-, polymer with 3-methyl-3-
Green	5343-	Pentylene glycol			[(2,2,3,3,3-
[Circle]	92-0				pentafluoropropoxy)methyl]oxetan
Yellow	25322-	Polypropylene glycol			e, ether with 2,2-dimethyl-1,3-
[Triangle]	69-4				propanediol (2:1), bis(hydrogen
Green	88917-	Propanol 1 (or 2)-2-methoxymethyl			sulfate), diammonium salt
[Circle]	22-0	ethoxy, acetate			
V. II	25.400	D 1 50 /0			
Yellow	25498-	Propanol, [2-(2-	Yellow	141-	Ethanolamine
[Triangle]	49-1	methoxymethylethoxy)methyletho	[Triangle]	43-5	
	400	xy]-	Yellow	67762-	Fatty acids, C16-18 and C18-
Green	109-	Propyl acetate	[Triangle]	38-3	unsatd., methyl esters
[Circle]	60-4		Yellow	68919-	Fatty acids, soya, Me esters
Green	108-	Propylene carbonate	[Triangle]	53-9	
[Circle]	32-7	Donor dono a chica di ca abbadi abba a	Yellow	27619-	Halogenated aliphatic acid
Green	108-	Propylene glycol methyl ether	[Triangle]	97-2	
[Circle]	65-6	acetate	Yellow	67784-	Soybean oil, methyl esters
Green	5131-	Propylene glycol n-butyl ether	[Triangle]	80-9	
[Circle]	66-8	Caulaga ail maakkul aakana	Yellow	78-51-	Tri-2-Butoxyethyl phosphate
Yellow	67784- 80-9	Soybean oil, methyl esters	[Triangle]	3	Totalla a alamata a
[Triangle]		Totro othydono glygol	Yellow	102-	Triethanolamine
Half Green	112- 60.7	Tetraethylene glycol	[Triangle]	71-6	
[Circle]	60-7 34800	Tripropulano alusal	Surfactants		
Green [Circlo]	24800-	Tripropylene glycol	Green	128824	1-Dodecanesulfonic acid, hydroxy-,
[Circle]	44-0	Tripropulano alucal a butul atbar	[Circle]	-30-6	sodium salt
Green [Circle]	55934-	Tripropylene glycol n-butyl ether			
[Circle]	93-5				

Green [Circle]	147170 -44-3	1-Propanaminium, 3-amino-N- (carboxymethyl)-N,N-dimethyl-, N- (C8-18 and C18-unsatd. acyl)	Green [Circle] Green	68551- 13-3 120313	Alcohols, C12-15, ethoxylated propoxylated Alcohols, C12-15-branched and
		derivs., inner salts	[Circle]	-48-6	linear, ethoxylated propoxylated
Green [Circle]	61789- 39-7	1-Propanaminium, 3-amino-N- (carboxymethyl)-N,N-dimethyl-, N-	Green [Circle]	68551- 12-2	Alcohols, C12-16, ethoxylated
		coco acyl derivs., chlorides, sodium salts	Green [Circle]	67762- 25-8	Alcohols, C12-18
			Green	146340	Alcohols, C12-18, ethers with
Green	61789-	1-Propanaminium, 3-amino-N-	[Circle]	-16-1	polyethylene glycol mono-Bu ether
[Circle]	40-0	(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., inner salts	Green	68213-	Alcohols, C12-18, ethoxylated
		coco acyr derivs., ililer saits	[Circle]	23-0	Alcohols, C12-18, ethoxylated
Green	73772-	1-Propanaminium, N-	Green	68951-	Alcohols, C14-15, ethoxylated
[Circle]	45-9	(carboxymethyl)-N,N-dimethyl-3-	[Circle]	67-7	, 110011013, CI : 13, CI 1000, Inc.
[]		[(1-oxodecyl)amino]-, inner salt	Green	68439-	Alcohols, C16-18, ethoxylated
			[Circle]	49-6	, , , , , , , , , , , , , , , , , , , ,
			Green	70879-	Alcohols, C6-10, ethoxylated
Green	73772-	1-Propanaminium, N-	[Circle]	83-3	, ,
[Circle]	46-0	(carboxymethyl)-N,N-dimethyl-3-	Green	68987-	Alcohols, C6-10, ethoxylated
		[(1-oxooctyl)amino]-, inner salt	[Circle]	81-5	propoxylated
			Green	68439-	Alcohols, C6-12, ethoxylated
			[Circle]	45-2	
Green	125590	2-Ethylhexyl-alpha-D-glucoside	Green	68937-	Alcohols, C6-12, ethoxylated and
[Circle]	-73-0		[Circle]	66-6	propoxylated
Green	161074	2-Ethylhexyl-poly-D-glucosides			
[Circle]	-93-7		Green	71060-	Alcohols, C8-10, ethoxylated
Green	506-	9-Eicosenoic acid	[Circle]	57-6	
[Circle]	31-0		Green	68603-	Alcohols, C8-10, ethoxylated
Green	68154-	Alcohols, C10-12, ethoxylated	[Circle]	25-8	propoxylated
[Circle]	97-2	propoxylated	Green	69013-	Alcohols, C8-18, ethoxylated
Green	66455-	Alcohols, C10-14, ethoxylated	[Circle]	18-9	propoxylated
[Circle]	15-0		Green	68439-	Alcohols, C9-11, ethoxylated
Green	68002-	Alcohols, C10-16, ethoxylated	[Circle]	46-3	All (642 645)
[Circle]	97-1	Alashala C10 1C athawalatad	Green	73296-	Alkyl(C12-C16)alcohol sulfate
Green	69227-	Alcohols, C10-16, ethoxylated	[Circle]	89-6 70851	sodium salt
[Circle]	22-1 78330-	propoxylated Alcohols, C11-14-iso-, C13-rich,	Green [Circle]	70851- 07-9	Amides, coco, N-[3- (dimethylamino)propyl], alkylation
Green [Circle]	78330- 21-9	ethoxylated	[Circle]	07-9	products with chloroacetic acid,
Green	68131-	Alcohols, C11-15-secondary,			sodium salts
[Circle]	40-8	ethoxylated			
Green	66455-	Alcohols, C12-13, ethoxylated	Green	70592-	Amines, C10-16-alkyldimethyl, N-
[Circle]	14-9	, wooners, etc. 15, ethoxylated	[Circle]	80-2	oxides
Green	68439-	Alcohols, C12-14, ethoxylated	Green	68955-	Amines, C12-18-alkyldimethyl, N-
[Circle]	50-9	, , ,	[Circle]	55-5	oxides
Green	68439-	Alcohols, C12-14, ethoxylated	Green	61791-	Amines, coco alkyl dihydroxyethyl,
[Circle]	51-0	propoxylated	[Circle]	47-7	oxides
Green	84133-	Alcohols, C12-14-secondary,	Green	2235-	Ammonium lauryl sulfate
[Circle]	50-6	ethoxylated	[Circle]	54-3	
Green	68131-	Alcohols, C12-15, ethoxylated	Green	26447-	Ammonium xylenesulfonate
[Circle]	39-5		[Circle]	10-9	

Green	506-	Arachidic acid	Green	161074	C8-10 Alkyl-poly-D-glucosides
[Circle]	30-9		[Circle]	-97-1	or to the poly of Branchines
Green	112-	Behenic acid	Green	141464	C8-16 Alkyl-poly-D-glucosides
[Circle]	85-6		[Circle]	-42-8	
Green	32073-	Benzene, (1-methylethyl)-,	Green	132778	C9-11 Alkyl-poly-D-glucosides
[Circle]	22-6	monosulfo deriv., sodium salt (1:1)	[Circle]	-08-6	
			Green	2605-	Capric dimethyl amine oxide
Green	85536-	Benzenesulfonic acid, 4-C10-13-	[Circle]	79-0	
[Circle]	14-7	sec-alkyl derivs.	Green	68187-	Castor oil, sulfated, sodium salt
Green	127184	Benzenesulfonic acid, 4-C10-13-	[Circle]	76-8	
[Circle]	-52-5	sec-alkyl derivs., sodium salts	Green	7128-	Cetamine oxide
			[Circle]	91-8	
Green	69669-	Benzenesulfonic acid, C10-14-alkyl	Green	68139-	Cocamidopropyl hydroxysultaine
[Circle]	44-9	derivs., sodium salts	[Circle]	30-0	
			Green	68155-	Cocamidopropylamine oxide
Green	68584-	Benzenesulfonic acid, C10-16-alkyl	[Circle]	09-9	
[Circle]	22-5	derivs.	Green	61788-	Cocamine oxide
Green	68584-	Benzenesulfonic acid, C10-16-alkyl	[Circle]	90-7	
[Circle]	26-9	derivs., magnesium salts	Green	61791-	Coconut fatty acids, ethoxylated
			[Circle]	29-5	
Green	68081-	Benzenesulfonic acid, mono-C10-	Green	68814-	Coconut oil, sodium salt
[Circle]	81-2	16-alkyl derivs., sodium salts	[Circle]	96-0	
_			Green	53980-	Cyclocarboxypropyloleic acid
Green	94441-	beta-Alanine, N-(2-carboxyethyl)-	[Circle]	88-4	
[Circle]	92-6	N-(2-ethylhexyl)-, sodium salt (1:1)	Green	334-	Decanoic Acid
			[Circle]	48-5	Decree is said a standium salt (4.4)
Cuana	72000	Patainas C10 1C allud/2 budgay.	Green	13040-	Decanoic acid, potassium salt (1:1)
Green	72869- 77-3	Betaines, C10-16-alkyl(2-hydroxy-	[Circle]	18-1 1002-	December and codium calt
[Circle]	77-3	3-sulfopropyl)dimethyl	Green [Circle]	62-6	Decanoic acid, sodium salt
Green	68424-	Betaines, coco alkyldimethyl	Green	68515-	Decyl, octyl-poly-D-glucosides
[Circle]	94-2	betaines, coco arkylulinethyl	[Circle]	73-1	Decyi, octyi-poiy-b-giacosiaes
Green	3006-	Bis(1-methylamyl) sodium	Green	1322-	Decylbenzenesulfonic acid
[Circle]	15-3	sulfosuccinate	[Circle]	98-1	Becylochizenesanome acia
Green	68815-	Butanedioic acid, sulfo-,	Green	161074	Decyl-poly-D-glucosides
[Circle]	56-5	mono(C10-C16)alkyl ethoxylated	[Circle]	-85-7	Beey, pory B glacosides
[00.0]		ester, disodium salt	Green	151911	D-Glucopyranose, oligomeric, 6-
		,	[Circle]	-51-2	(dihydrogen 2-hydroxy-1,2,3-
Green	31387-	Butyl D-glucoside			propanetricarboxylate), 1-(coco
[Circle]	97-0	, 3			alkyl) ethers, sodium salts
Green	510758	Butyl poly-D-glucosides			
[Circle]	-10-8				
Green	90194-	C10-13 Alkyl benzenesulfonic acid,	Green	742087	D-Glucopyranose, oligomeric, C10-
[Circle]	45-9	sodium salts	[Circle]	-49-6	16-alkyl glycosides, 2-hydroxy-3-
Green	110615	C10-16 Alkyl-poly-D-glucosides			sulfopropyl ethers, sodium salts
[Circle]	-47-9	, , , , , ,			
Green	157707	C12-14 Alkyl-poly-D-glucosides	Green	3088-	Diethylene glycol momolauryl
[Circle]	-88-5		[Circle]	31-1	ether sodium sulfate
Green	510759	C12-16 Alkyl-poly-D-glucosides			
[Circle]	-65-6		Green	68187-	Disodium cocoyl glutamate
Green	113976	C6-12 Alkyl-poly-D-glucosides	[Circle]	30-4	
[Circle]	-90-2				

Green [Circle]	3655- 00-3	Disodium lauriminodipropionate	Green [Circle]	67701- 08-0	Fatty acids, C16-18 and C18- unsatd.
Green	32208-	Distearoylethyl	Green	68955-	Fatty acids, C16-18 and C18-
[Circle]	04-1	hydroxyethylmonium methosulfate	[Circle]	98-6	unsatd., branched and linear
Green [Circle]	143- 07-7	Dodecanoic acid	Green [Circle]	67701- 05-7	Fatty acids, C8-18 and C18-unsatd.
Green	928663	Dodecanoic acid, methyl-2-	Green	61788-	Fatty acids, coco
[Circle]	-45-0	sulfoethyl ester, sodium salt (1:1)	[Circle]	47-4	racey acras, coco
[]			Green	61789-	Fatty acids, coco, sodium salts
Green	10124-	Dodecanoic acid, potassium salt	[Circle]	31-9	racey acras, coco, souram sares
[Circle]	65-9		Green	61789-	Fatty acids, coconut oil, potassium
Green	629-	Dodecanoic acid, sodium salt	[Circle]	30-8	salts
[Circle]	25-4		Green	61789-	Fatty acids, coconut oil, sulfoethyl
Green	30965-	Dodecene-1-sulfonic acid, sodium	[Circle]	32-0	esters, sodium salts
[Circle]	85-6	salt			,
Green	9002-	Dodecyl alcohol, ethoxylated	Green	61789-	Fatty acids, olive-oil, sodium salts
[Circle]	92-0	, , ,	[Circle]	88-6	, ,
Green	3055-	Dodecyl triethylene glycol ether	Green	68440-	Fatty acids, palm kernel-oil, methyl
[Circle]	94-5		[Circle]	13-1	esters, sulfonated, sodium salts
Green	27176-	Dodecylbenzene sulfonic acid	[]		
[Circle]	87-0	,	Green	61790-	Fatty acids, palm-oil, sodium salts
Green	59122-	Dodecyl-beta-D-glucoside	[Circle]	79-2	
[Circle]	55-3	,	Green	68440-	Fatty acids, safflower-oil, sodium
Green	107918	Ethanaminium, 2-hydroxy-N-(2-	[Circle]	19-7	salts
[Circle]	4-43-2	hydroxyethyl)-N,N-dimethyl-,	Green	61790-	Fatty acids, tall-oil
		esters with C16-18 and C18-unsatd.	[Circle]	12-3	
		fatty acids, chlorides	Green	61790-	Fatty acids, tall-oil, potassium salts
			[Circle]	44-1	, a.s., a.s.a., a.s. a.s., p. a.s.a.s.
Green	157905	Ethanaminium, 2-hydroxy-N,N-	Green	61790-	Fatty acids, tall-oil, sodium salts
[Circle]	-74-3	bis(2-hydroxyethyl)-N-methyl-,	[Circle]	45-2	
		esters with C16-18 and C18-unsatd.	Green	61790-	Fatty acids, tallow
		fatty acids, methyl sulfates (salts)	[Circle]	37-2	,
			Green	68605-	Fatty acids, tallow, hydrogenated,
			[Circle]	97-0	compds. with triethanolamine
Green	67846-	Ethanaminium, N,N-dimethyl-2-[(1-			·
[Circle]	68-8	oxooctadecyl)oxy]-N-[2-[(1-	Green	8052-	Fatty acids, tallow, sodium salts
		oxooctadecyl)oxy]ethyl]-, chloride	[Circle]	48-0	•
			Green	137-	Gardol
			[Circle]	16-6	
Green	4219-	Ethylene glycol monopalmitate	Green	67701-	Glycerides, C14-18 mono- and di-
[Circle]	49-2		[Circle]	33-1	·
Green	111-	Ethylene glycol monostearate	Green	68424-	Glycerides, C16-18 and C18-unsatd.
[Circle]	60-4		[Circle]	61-3	mono- and di-
Green	68002-	Fatty acids, C10-16	Green	85251-	Glycerides, C16-18 mono- and di-
[Circle]	90-4		[Circle]	77-0	·
Green	149458	Fatty acids, C12-18, methyl esters,	Green	91052-	Glycerides, C8-18 and C18-unsatd.
[Circle]	-07-1	sulfonated, sodium salts	[Circle]	13-0	mono- and di-, acetates
Green	67701-	Fatty acids, C14-18 and C16-18-	Green	736150	Glycerides, castor-oil mono-,
[Circle]	06-8	unsatd.	[Circle]	-63-3	hydrogenated, acetates
Green	67701-	Fatty acids, C16-18	Green	37220-	Glycerine oleate
[Circle]	03-5		[Circle]	82-9	•

Green [Circle]	111- 03-5	Glyceryl monooleate	Green [Circle]	59272- 84-3	Myristamidopropyl betaine
Green [Circle]	25496- 72-4	Glyceryl monooleate [NF]	Green [Circle]	544- 64-9	Myristoleic acid
Green	123-	Glyceryl monostearate	Green	27306-	Myristyl alcohol, ethoxylated
[Circle]	94-4		[Circle]	79-2	(2.411.1/042.045)
Green	31566-	Glyceryl monostearate	Green	68608-	N-(3-Alkyl(C12-C15)oxypropyl)-3-
[Circle]	31-1	Character	[Circle]	69-5	iminodipropionic acid,
Green	11099-	Glyceryl stearates			monosodium salt
[Circle]	07-3	Chaine Namethal Name and	Croon	2222	N.N. Dimethyl 1 tetradecanamine
Green	68411- 97-2	Glycine, N-methyl-, N-coco acyl derivs.	Green [Circle]	3332- 27-2	N,N-Dimethyl-1-tetradecanamine- N-oxide
[Circle]	627-	Glycol distearate	[Circle] Green	1643-	
Green	83-8	Glycol distearate		20-5	N,N-Dimethyldodecylamine oxide
[Circle] Green	506-	Heptadecanoic acid	[Circle]	20-5	
	12-7	rieptauecanoic aciu	Green	27252-	n Ostylnolygyysthylana
[Circle] Green	12-7 142-	Hexanoic Acid	[Circle]	75-1	n-Octylpolyoxyethylene
[Circle]	62-1	riexarioic Acid	Green	2687-	N-Octylpyrrolidone
Green	54549-	Hexyl D-glucoside	[Circle]	2007- 94-7	N-Octylpyffolidolle
[Circle]	24-5	Hexyl D-glucoside	Green	124-	Octanoic acid
Green	31726-	Hexyl poly(oxyethylene) ether	[Circle]	07-2	Octanoic acid
	34-8	nexyi poly(oxyethylene) ethel		26402-	Ostanois asid monoostor with
[Circle] Green	68604-	Imidazolium compounds, 1-[2-(2-	Half Green [Circle]	26402- 26-6	Octanoic acid, monoester with 1,2,3-propanetriol
	71-7	carboxyethoxy)ethyl]-1(or 3)-(2-	Green	764-	
[Circle]	/1-/	carboxyethoxy)ethyl]-1(015)-(2-carboxyethyl)-4,5-dihydro-2-	[Circle]	764- 71-6	Octanoic acid, potassium salt
		norcoco alkyl, hydroxides,			Ostanaja asid reastion products
		disodium salts	Green [Circle]	68815- 55-4	Octanoic acid, reaction products with 2-[(2-
		uisoulum saits	[Circle]	33-4	aminoethyl)amino]ethanol, acrylic
Green	67-63-	Isopropanol			acid alkylated (1:2), disodium salts
[Circle]	07-03-	isoproparior			acid alkylated (1.2), disodidili saits
Green	4292-	Lauramidopropyl betaine	Green	29836-	Octyl-beta-D-glucoside
[Circle]	42 <i>9</i> 2- 10-8	Laurannuopropyrbetaine	[Circle]	26-8	Octyl-beta-b-glucoside
Green	61792-	Lauramidopropylamine oxide	Green	2605-	Octyldimethylamine oxide
[Circle]	31-2	Laurannuopropylamine oxide	[Circle]	78-9	Octylalinethylamine oxide
Green	13197-	Lauryl hydroxysultaine	Green	27593-	Octyldimethylbetaine
[Circle]	76-7	Lauryr ffydroxysultaine	[Circle]	14-2	Octylalinethylbetallie
Green	683-	Lauryldimethylbetaine	Green	112-	Oleic acid
[Circle]	10-3	Luar yrannetnyroetame	[Circle]	80-1	Office deld
Green	8002-	Lecithins	Green	143-	Oleic acid, sodium salt
[Circle]	43-5	Lectimis	[Circle]	19-1	Office dela, souldin sait
Green	557-	Lignoceric acid	Half Green	166736	Oxirane, 2-methyl-, polymer with
[Circle]	59-5	Ligitocette deld	[Circle]	-08-9	oxirane, mono(2-propylheptyl)
Green	60-33-	Linoleic acid	[00.0]		ether
[Circle]	3	Emore io doid			
Green	463-	Linolenic acid	Green	64366-	Oxirane, methyl-, polymer with
[Circle]	40-1		[Circle]	70-7	oxirane, mono(2-ethylhexyl) ether
Green	3097-	Magnesium lauryl sulfate	[]		
[Circle]	08-3		Green	57-10-	Palmitic acid
Half Green	557-	Magnesium stearate	[Circle]	3	- ·····
[Circle]	04-0	U	Green	9003-	Poloxalene
Green	67806-	Myristamido propylamine oxide	[Circle]	11-6	
[Circle]	10-4	,	- •		
[Circle]	10-4				

Green [Circle]	39354- 45-5	Poly(oxy-1,2-ethanediyl), .alpha (3-carboxy-1-oxo-3-sulfopropyl)- .omega(dodecyloxy)-, disodium salt	Green [Circle] Green [Circle]	24938- 91-8 68585- 34-2	Polyethylene glycol mono(tridecyl) ether Polyethylene glycol mono-C10-16- alkyl ether sulfate sodium salt
Green [Circle]	53563- 70-5	Poly(oxy-1,2-ethanediyl), .alpha (carboxymethyl)omega (octyloxy)-	Green [Circle]	68891- 38-3	Polyethylene glycol mono-C12-14- alkyl ether sulfate sodium salt
Green [Circle]	26183- 52-8	Poly(oxy-1,2-ethanediyl), .alpha decylomegahydroxy-	Green [Circle]	9004- 98-2	Polyethylene glycol monoleyl ether
Green	67762-	Poly(oxy-1,2-ethanediyl), .alpha	Green [Circle]	9004- 99-3	Polyethylene glycol stearate
[Circle]	19-0	sulfoomegahydroxy-, C10-16- alkyl ethers, ammonium salts	Half Green [Circle]	9005- 07-6	Polyoxyethylene dioleate
Green	68037-	Poly(oxy-1,2-ethanediyl), .alpha	Green [Circle]	9004- 96-0	Polyoxyethylene monoleate
[Circle]	05-8	sulfoomegahydroxy-, C6-10-alkyl ethers, ammonium salts	Green [Circle] Green	9005- 00-9 34398-	Polyoxyethylene monooctadecyl ether Polyoxyethylene monoundecyl
Half Green [Circle]	160875 -66-1	Poly(oxy-1,2-ethanediyl), alpha-(2-propylheptyl)-omega-hydroxy-	[Circle] Green	01-1 9005-	ether Polyoxyethylene sorbitan trioleate
Green [Circle]	68954- 91-6	Poly(oxy-1,2-ethanediyl), alpha-(3-carboxy-1-oxosulfopropyl)-omega-	[Circle] Green [Circle]	70-3 9005- 65-6	Polysorbate 80
		hydroxy-, C10-12-alkyl ethers, disodium salts	Green [Circle]	68127- 33-3	Potassium acrylinoleate
Green	70750-	Poly(oxy-1,2-ethanediyl), alpha-	Green [Circle]	226993 -76-6	Potassium babassuate
[Circle]	17-3	(carboxymethyl)-omega-hydroxy-, C12-13-alkyl ethers	Green [Circle]	27177- 77-1 17378-	Potassium dodecylbenzene sulfonate
Green	220622 -96-8	Poly(oxy-1,2-ethanediyl), alpha-	Half Green [Circle]	36-8	Potassium heptadecanoate Potassium linoleate
[Circle]	-90-6	(carboxymethyl)-omega-hydroxy- ,C12-14-alkyl ethers	Green [Circle] Green	3414- 89-9 13429-	
Green	109075 -72-1	Poly(oxy-1,2-ethanediyl), alpha-	[Circle]	27-1	Potassium myristate
[Circle]		butyl-omega-(octyloxy)-	Green [Circle]	2624- 31-9	Potassium palmitate
Green [Circle]	501019 -91-6	Poly(oxy-1,2-ethanediyl), alpha- hydro-omega-hydroxy-, mono-C8-	Green [Circle]	593- 29-3	Propagaio asid 3 hydrony 2 (610
		10-alkyl ethers, ethers with 1,2-dodecanediol (1:1)	Green [Circle]	910661 -93-7	Propanoic acid, 2-hydroxy-, 2-(C10-16-alkyloxy)-1-methyl-2-oxoethyl ester
Green [Circle]	69011- 36-5	Poly(oxy-1,2-ethanediyl), alphatridecyl-omega-hydroxy-, branched	Green [Circle]	73138- 81-5	Quaternary ammonium compounds, bis(hydroxyethyl)methyltallow
Green [Circle]	127036 -24-2	Poly(oxy-1,2-ethanediyl), alpha- undecyl-omega-hydroxy-, branched and linear	Green	61791-	alkyl, ethoxylated, methyl sulfates (salts) Quaternary ammonium
Green [Circle]	9005- 08-7	Polyethylene glycol distearate	[Circle]	10-4	compounds, coco alkylbis(hydroxyethyl)methyl, ethoxylated, chlorides

Green [Circle]	4016- 24-4	Sodium 1-methoxy-1- oxohexadecane-2-sulphonate	Green [Circle]	1338- 41-6	Sorbitan monostearate
		·	Green	144399	Sorbitan oleate decylglucoside
Green [Circle]	5324- 84-5	Sodium 1-octanesulfonate	[Circle]	4-56-6	crosspolymer
Green	1984-	Sodium caprylate	Green	8007-	Sorbitan sesquioleate
[Circle]	06-1		[Circle]	43-0	
Green	68187-	Sodium cocoyl glutamate	Green	9005-	Sorbitan, monododecanoate,
[Circle]	32-6		[Circle]	64-5	poly(oxy-1,2-ethanediyl) derivs.
Green	28348-	Sodium cumene sulfonate			
[Circle]	53-0				
Green	9004-	Sodium dodecylpoly(oxyethylene)	Green	9005-	Sorbitan, monooctadecanoate,
[Circle]	82-4	sulfate	[Circle]	67-8	poly(oxy-1,2-ethanediyl) derivs.
Green	14960-	Sodium laurimino dipropionate			
[Circle]	06-6		Half Green	9005-	Sorbitan, trioctadecanoate,
Green	29923-	Sodium lauroyl glutamate	[Circle]	71-4	poly(oxy-1,2-ethanediyl) derivs.
[Circle]	31-7				
Green	13557-	Sodium lauroyl lactylate	Green	68308-	Soybean oil fatty acids
[Circle]	75-0		[Circle]	53-2	
Green	25155-	Sodium lauryl benzene sulfonate	Green	61790-	Soybean oil, sulfated, sodium salt
[Circle]	30-0		[Circle]	16-7	
Green	151-	Sodium lauryl sulfate	Green	57-11-	Stearic acid
[Circle]	21-3		[Circle]	4	
Green	13150-	Sodium lauryl trioxyethylene	Green	68037-	Sulfonic acids, C10-18-alkane,
[Circle]	00-0	sulfate	[Circle]	49-0	sodium salts
Green	822-	Sodium linoleate	Green	68439-	Sulfonic acids, C14-16-alkane
[Circle]	17-3		[Circle]	57-6	hydroxy and C14-16-alkene,
Green	822-	Sodium myristate			sodium salts
[Circle]	12-8		Green	68608-	Sulfonic acids, petroleum, sodium
Green	30364-	Sodium myristol sarcosinate	[Circle]	26-4	salts
[Circle]	51-3		Green	68081-	Sulfuric acid, mono-C10-16-alkyl
Green	142-	Sodium octyl sulfate	[Circle]	96-9	esters, ammonium salts
[Circle]	31-4				
Green	408-	Sodium palmitate	Green	68585-	Sulfuric acid, mono-C10-16-alkyl
[Circle]	35-5		[Circle]	47-7	esters, sodium salts
Green	25446-	Sodium polyoxyethylene tridecyl	Green	85586-	Sulfuric acid, mono-C12-14 alkyl
[Circle]	78-0	sulfate	[Circle]	07-8	esters, sodium salts
Green	822-	Sodium stearate	Green	68955-	Sulfuric acid, mono-C12-18-alkyl
[Circle]	16-2		[Circle]	19-1	esters, sodium salts
Green	26248-	Sodium tridecylbenzene sulfonate	Green	68955-	Sulfuric acid, mono-C16-18-alkyl
[Circle]	24-8		[Circle]	20-4	esters, sodium salts
Green	27636-	Sodium undecylbenzene sulfonate	Green	142-	Sulfuric acid, monodecyl ester,
[Circle]	75-5		[Circle]	87-0	sodium salt (1:1)
Green	1300-	Sodium xylene sulfonate	Green	69669-	Sunflower oil, potassium salt
[Circle]	72-7		[Circle]	39-2	
Green	1338-	Sorbitan monolaurate	Green	544-	Tetradecanoic acid
[Circle]	39-2		[Circle]	63-8	
Green	1338-	Sorbitan monooleate	Green	98283-	Undecyl-D-glucoside
[Circle]	43-8	Carlottan manner I. M.	[Circle]	67-1	
Green	26266-	Sorbitan monopalmitate	Uncategoriz		
[Circle]	57-9		Green	85507-	Aloe barbadensis extract
			[Circle]	69-3	

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