

Additional Resources for APFA FAQ Regarding Uniform Testing By the Company

This document is intended to be read in conjunction with the information provided in the FAQ titled "[APFA Regarding Uniform Testing by the Company](#)."

Some of the information on this website is aimed at a general audience, and some of it is geared toward medical professionals or other people with technical expertise. We are providing the technical information to you to aid discussions that you may be having with your medical providers. As we explained in the FAQ, each individual's circumstances are different, and we strongly recommend that you seek medical advice from a well-regarded medical specialist in the event that you have experienced a health problem that you suspect is related to chemicals that may be present in your uniform.

Information Resources on the Following Topics

Skin and Respiratory Irritation

- <http://www.ilpi.com/msds/ref/irritant.html>
 - This site provides definitions of "irritant" with respect to how that term is used in the Material Safety Data Sheets (MSDS) commonly used as sources of information on chemicals and their effects in the workplace. This site contains links to additional information.

- <https://www.aad.org/public>
 - Information from the American Academy of Dermatology for the general public. You can search on this website to obtain more information about different conditions and treatments.

- <https://www.ccohs.ca/oshanswers/diseases/dermatitis.html>
 - This is a link to the Canadian equivalent to the U.S. Occupational Safety and Health Act (OSHA). It is a good resource on irritant contact dermatitis.

- <http://www.dermnetz.org/topics/irritant-contact-dermatitis>
 - Another good resource with many good online resources listed at the end of the page.

- <http://www.racgp.org.au/afp/2012/november/respiratory-problems/>
 - This article on respiratory problems due to occupational and environmental exposures has good images and information that is relevant to inhaling irritant chemicals.

Allergic Responses

Many of the resources listed above also provide information on allergic responses to chemicals with respect to effects on the skin and respiratory system.

- <http://www.ilpi.com/msds/ref/sensitizer.html>
 - This site describes the definitions of an allergen (also referred to as a sensitizer) that are used in the MSDS documents commonly used as sources of information on chemicals and their effects. It contains links to additional information.
- <http://www.dermnetz.org/topics/allergic-contact-dermatitis>
 - A good resource on allergic contact dermatitis.

Other Health Effects and Organ System Harm

“Other health effects,” as defined in the FAQ, includes everything not covered under irritant or allergenic effects. It therefore includes a wide range of health conditions that can occur throughout the body (heart, lungs, kidneys, liver, reproductive system, endocrine system, etc.). Many medical conditions can be caused or aggravated by exposures to toxic chemicals. As we explain in the FAQ, most of the chemicals listed in Table 1 of the FAQ can only cause serious health conditions if high levels of exposure occur, and that is not anticipated with chemicals in the uniforms. Harm could potentially occur if someone is especially susceptible to a given chemical or is exposed to multiple chemicals capable of harming the same organ system.

The most detailed and accurate resources for additional information on specific health problems are those used by medical professionals. However, for information written in less technical terms, you can access online information developed for the general public by the National Institutes of Health, which provides detailed information developed for the public on a wide range of health conditions. The online search page can be found [here](#). If you search the term “endocrine,” you can access listings for endocrine disruption, diseases, and other related information.

Information on Chemicals Found in Textiles

A recent report by the Swedish Chemicals Agency contains useful information on chemicals in garments and some of their hazards. Chapter 4, which discusses the types of chemicals found in textiles and their purpose is very useful. Chapter 5 addresses health effects of some of the chemicals, to the degree that is known. While this was developed for the European Union, the information provides a good overview of the health issues that are also relevant in the United States.

<https://www.kemi.se/files/8040fb7a4f2547b7bad522c399c0b649/report6-14-chemicals-in-textiles.pdf>

Information on Susceptible Populations

A good description of especially susceptible populations, some of the characteristics that make people more susceptible, and links to other resources on the topic is available on this website:

<https://www.epa.gov/expobox/exposure-assessment-tools-lifestages-and-populations-highly-exposed-or-other-susceptible>

Information on Chemical Mixtures

One important factor in evaluating the safety of the uniforms is that the Company testing has indicated that some garments contain multiple irritants or allergens. The standards and guidelines that have been developed for chemicals in textiles typically do not take into account the greater risk that is posed by exposure to a mixture of hazardous chemicals. This greater risk is well-recognized in the medical scientific literature and most agencies dealing with health also address this issue. For example, the Environmental Protection Agency (EPA), Centers for Disease Control (CDC), and OSHA require consideration of the mixture of chemicals when evaluating health impacts. However, there are very few studies of mixtures of chemicals, so evaluations of mixtures require the analysis across different chemicals.

The following paper summary discusses the importance of considering the combination of chemicals that people are exposed to, rather than just considering each one in isolation. (The full text of the article can be accessed by clicking on the upper right link "Free Full Text.")

[https://www.ncbi.nlm.nih.gov/pubmed?term=\(Carpenter%20D%5BAuthor%20-%20First%5D\)%20AND%20Mixture%5BTitle%2FAbstract%5D](https://www.ncbi.nlm.nih.gov/pubmed?term=(Carpenter%20D%5BAuthor%20-%20First%5D)%20AND%20Mixture%5BTitle%2FAbstract%5D)

A more technical discussion is included in the following report from the European Union, which concludes that "[t]here is a consensus in the field of mixture toxicology that the customary chemical-by-chemical approach to risk assessment might be too simplistic. It is in danger of underestimating the risk of chemicals to human health and to the environment."

http://ec.europa.eu/environment/chemicals/effects/pdf/report_mixture_toxicity.pdf

Additional Medical Information

In the event that you are consulting a medical professional, this site is a good resource for free medical textbooks regarding a variety of subjects, including dermatology, allergies, and immunology:

http://www.freebookcentre.net/medical_text_books_journals/medical_text_books_online.htm
↓

Cross Reference Tables for Table 1

The information in Table 1 in the FAQ is arranged by chemical name. To aid your review of the information in Table 1, we have created the following tables that compile the chemicals found in the Company's testing for some of the most commonly worn garments—shirts and blouses, pants, and vests.

Shirts/Blouses (Table 2)

Sample ID (Style Number)	Common Name of Compound Detected (CAS number if available/applicable)
2a. returned FEMALE LS BLOUSE-CHECK (460-0191-202) (unopened with tag)	Diethylene glycol, CAS 111-46-6 Methyl palmitate, CAS 112-39-0
4a. returned FEMALE LS BLOUSE-CHECK (460-0191-202) (worn item)	Diethylene glycol, CAS 111-46-6 Methyl palmitate, CAS 112-39-0
5a. returned FEMALE SS BLOUSE-CHECK (420-0153-202) (unopened with tag)	Diethylene glycol, CAS 111-46-6 Methyl palmitate, CAS 112-39-0 Octadecyl ester hexadecanoic acid, CAS 2598-99-4
10a. returned FEMALE S-S BLOUSE (420-0157-202) (unopened with tag)	Methyl palmitate, CAS 112-39-0
13a. returned SHIRT DRESS- LONG SLEEVE (290-0040-202) (unopened)	Methyl oleate, CAS 112-62-9
24. new unworn FEMALE A-LINE SHIRT (380-0048-202)	Butylated hydroxytoluene, CAS 128-37-0 Caprolactam, CAS 105-60-2 Methyl oleate, CAS 112-62-9
32. new unworn FEMALE LS BLOUSE – CHECK (460-0191-202)	Diethylene glycol, CAS 111-46-6 N,N-Dimethylformamide, CAS 68-12-2

33. new unworn MALE CLASSIC SS SHIRT – CHECK (400-0158-201)	Diethylene glycol, CAS 111-46-6
39. new unworn FEMALE SS BLOUSE - SOLID (Blue) (420-0152-202)	Diethylene glycol, CAS 111-46-6 Methylpalmitate, CAS 112-39-0
40. new unworn MALE SLIM LS SHIRT – CHECK (440-0223-201)	Diethylene glycol, CAS 111-46-6 Octadecyl ester hexadecanoic acid, CAS 2598-99-4
41. new unworn MALE CLASSIC LS SHIRT – SOLID (440-0220-201)	Diethylene glycol, CAS 111-46-6 Methylpalmitate, CAS 112-39-0
43. new unworn FEMALE SS BLOUSE – CHECK (420-0153-202)	Diethylene glycol, CAS 111-46-6 Octadecyl ester hexadecanoic acid, CAS 2598-99-4
44. new unworn FEMALE SS BLOUSE - SOLID (White) (420-0157-202)	Diethylene glycol, CAS 111-46-6 Methylpalmitate, CAS 112-39-0
45. new unworn Male LSTwillShirtBlue (440-0231-201)	9-Octadecenamide, CAS 301-02-0 Benzoic acid, CAS 65-85-0 Cyclododecane, CAS 294-62-2 Dimethylformamide, CAS 68-12-2 Dipropylene glycol isomers, CAS 25265-71-8 Tentative: Benzophenone, CAS 119-61-9 Tentative: Naphthalene, CAS 91-20-3 Ethylbenzaldehyde, CAS 4748-78-1

Pants (Table 3)

Sample ID (Style Number)	Common Name of Compound Detected (CAS number if available/applicable)
9. new unworn FEMALE PANT – CLASSIC (320-0144-202)	2-Chloro-4,6-nitro-benzenamine, CAS 3531-19-9 Bis-(2-ethylhexyl)phthalate, CAS 117-81-7 Desmosterol, CAS 313-04-2 Methylpalmitate, CAS 112-39-0 Quinoline, CAS 91-22-5 Butylated hydroxytoluene, CAS 128-37-0
10. new unworn MALE SLIM FLAT FRONT PANT (300-0156-201)	2-(Methylthio)-benzothiazole, CAS 615-22-5 Desmosterol, CAS 313-04-2 Methylpalmitate, CAS 112-39-0 1,1'-Biphenyl, CAS 92-52-4 Quinoline, CAS 91-22-5

	Butylated hydroxytoluene, CAS 128-37-0
14. new unworn MALE PILOT CLASSIC FLAT FRONT (300-0158-201)	2-Chloro-4,6-nitro-benzenamine, CAS 3531-19-9 Isoquinoline, CAS 119-65-3 Desmosterol, CAS 313-04-2 Butylated hydroxytoluene, CAS 128-37-0 Mercaptobenzothiazole, CAS 149-30-4
28. new unworn FEMALE PILOT PANTS-SLIM (320-0147-202)	2-Bromo-4,6-dinitroaniline, CAS 1817-73-8 Butylated hydroxytoluene, CAS 128-37-0
50. new unworn MALE CLASSIC FLAT FRONT PANT (300-0155-299) (non-woolen)	2,6-Dichloro-4-nitro-benzenamine, CAS 99-30-9 2,4-Bis(1,1-dimethylethyl)phenol, CAS 96-76-4 Butylated Hydroxytoluene, CAS 128-37-0

Vests (Table 4)

Sample ID (Style Number)	Common Name of Compound Detected (CAS number if available/applicable)
7a. returned FEMALE VEST (175-0026-202) (worn)	Butylated hydroxytoluene, CAS 128-37-0 Caprolactam, CAS 105-60-2 Desmosterol, CAS 313-04-2 Dimethyl terephthalate, CAS 120-61-6 Methyl oleate, CAS 112-62-9
16. new unworn MALE VEST (170-0029-201)	Bis-(2-hydroxyethyl)lauramide, CAS 120-40-1
25. new unworn FEMALE VEST (175-0026-202)	Caprolactam, CAS 105-60-2 Desmosterol, CAS 313-04-2 Dimethyl terephthalate, CAS 120-61-6 Methyl oleate, CAS 112-62-9

Sources of Information for Health Effects Listed in Table 1

The sources for the information in Table 1 in the FAQ are listed in Table 5 below. These sources contain considerable additional information. Much of the information is ONLY relevant to high exposure situations, unlike what is expected from exposure to uniforms. However, the links also access other information that may be useful in some situations.

Many databases are available to search for more detailed information on a chemical, though most contain highly technical information. These include the National Library of Medicine, which provides a search option where you can enter the topic or chemical of interest at: <https://www.ncbi.nlm.nih.gov/pubmed/advanced>. This will access all of the peer-reviewed published studies globally. ToxNet provides access to many different databases that deal with chemical toxicity at: <https://toxnet.nlm.nih.gov/>. To see the range of chemical databases

resources for a specific chemical and access them directly, a search for the chemical name or CAS number can be done at: <https://chem.nlm.nih.gov/chemidplus/> Searching for information on individual federal agencies' websites may also yield useful information (Food and Drug Administration (FDA), EPA, OSHA, US Department of Agriculture (USDA), CDC, etc), but it is important to check the dates of the information because many of them are not up to date.

Most chemicals have not been tested to determine whether they can cause damage at low levels of exposure over time (chronic exposure), which is most relevant for people who've worn uniforms for weeks or months. Most also have not been tested for health damage to the developing fetus. Searches will yield some additional information, but may not answer many questions regarding a chemical's potential for harm.

Sources of Information for Table 1 (Table 5)

Chemical	Links to Scientific Information
Benzyl benzoate CAS # 120-51-4	http://www.sigmaaldrich.com/MSDS/MSDS/DisplayMSDSPage.do?country=US&language=en&productNumber=W213802&brand=ALDRICH&PageToGoToURL=http%3A%2F%2Fwww.sigmaaldrich.com%2Fcatalog%2Fproduct%2Faldrich%2FW213802%3Flang%3Den
Cholesterol CAS # 57-88-5	https://pubchem.ncbi.nlm.nih.gov/compound/cholesterol#section=FDA-Requirements
Caprolactam CAS # 105-60-2	https://chem.nlm.nih.gov/chemidplus/name/caprolactam https://www.epa.gov/sites/production/files/2016-09/documents/caprolactam.pdf
Butylated hydroxytoluene CAS # 128-37-0	http://www.tcichemicals.com/eshop/en/us/commodity/D0228/
Diethylene glycol CAS # 111-46-6	https://chem.nlm.nih.gov/chemidplus/rn/111-46-6
Methyl palmitate CAS # 112-39-0	http://www.chemblink.com/MSDS/MSDSFiles/112-39-0_Cayman.pdf http://www.chemicalbook.com/ProductMSDSDetailCB7783577_EN.htm
Desmosterol CAS # 313-04-2	https://www.caymanchem.com/msdss/14943m.pdf

Chemical	Links to Scientific Information
Methyl oleate CAS # 112-62-9	https://chem.nlm.nih.gov/chemidplus/name/methyl%20oleate https://toxnet.nlm.nih.gov/cgi-bin/sis/search/a?dbs+hsdb:@term+@DOCNO+5572
2-bromo-4,6-dinitrobenzenamine CAS # 1817-73-8	http://www.tcichemicals.com/eshop/en/us/commodity/B0814/ https://toxnet.nlm.nih.gov/cgi-bin/sis/search/a?dbs+hsdb:@term+@DOCNO+5453 https://pubchem.ncbi.nlm.nih.gov/compound/15752#section=Safety-and-Hazards
Pentacosane CAS # 629-99-2	http://www.alfachina.cn/AlfaAesarApp/getpdf?contentId=EN_US_MSDS_S_30880
Tetracosane CAS # 646-31-1	https://pubchem.ncbi.nlm.nih.gov/compound/12592
2,3-Dihydro-1,1,3-trimethyl-3-phenyl-1H-Indene CAS # 3910-35-8	http://www.matrixscientific.com/media/msds/09/84/90/MxMSDS_098490.pdf
Heptacosane CAS # 593-49-7	https://www.alfa.com/en/content/msds/english/L07796.pdf
Hexacosane CAS # 630-01-3	http://www.chemblink.com/MSDS/MSDSFiles/630-01-3_Alfa%20Aesar.pdf
Octacosane CAS # 630-02-4	https://toxnet.nlm.nih.gov/cgi-bin/sis/search/a?dbs+hsdb:@term+@DOCNO+8358 https://pubchem.ncbi.nlm.nih.gov/compound/octacosane#section=Literature
1-Methyl-3-phenylindane CAS # 6416-39-3	http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=env/jm/mono(2012)4/part4&doclanguage=en https://pubchem.ncbi.nlm.nih.gov/compound/22924#section=Safety-and-Hazards

Chemical	Links to Scientific Information
Dimethyl ester 1,4-benzenecarboxylic acid (syn: dimethyl terephthalate) CAS # 120-61-6	https://chem.nlm.nih.gov/chemidplus/name/dimethyl%20terephthalate https://pubchem.ncbi.nlm.nih.gov/compound/dimethyl_terephthalate#section=NIOSH-Toxicity-Data&fullscreen=true
Tricosane CAS # 638-67-5	https://pubchem.ncbi.nlm.nih.gov/compound/12534
Nonacosane CAS # 630-03-5	https://toxnet.nlm.nih.gov/cgi-bin/sis/search/a?dbs+hsdb:@term+@DOCNO+8359 https://pubchem.ncbi.nlm.nih.gov/compound/nonacosane
Quinoline CAS # 91-22-5	https://pubchem.ncbi.nlm.nih.gov/compound/7047#section=Molecular-Formula https://toxnet.nlm.nih.gov/cgi-bin/sis/search/a?dbs+hsdb:@term+@DOCNO+121
Octadecyl ester hexadecanoic acid (syn: stearyl palmitate, lanolin) CAS # 2598-99-4	http://www.chemicalbook.com/ChemicalProductProperty_DE_CB8124524.htm https://pubchem.ncbi.nlm.nih.gov/compound/75778#section=Drug-and-Medication-Information
2-Chloro-4,6-nitrobenzenamine (-dinitroaniline) CAS # 3531-19-9	http://www.sigmaaldrich.com/MSDS/MSDS/DisplayMSDSPage.do?country=US&language=en&productNumber=225428&brand=ALDRICH&PageToGoToURL=http%3A%2F%2Fwww.sigmaaldrich.com%2Fcatalog%2Fsearch%3Fterm%3D3531-19-9%26interface%3DCAS%2520No.%26N%3D0%2B%26mode%3Dpartialmax%26lang%3Den%26region%3DUS%26focus%3Dproduct
C.I. Disperse Orange 30; (syn: 3-(4-((2,6-Dichloro-4-nitrophenyl)azo)-N-(2-hydroxyethyl)anilino)propionitrile, acetate (ester)) CAS # 5261-31-4	http://www.chemicalbook.com/ChemicalProductProperty_US_CB3883215.aspx http://www.chemblink.com/MSDS/MSDSFiles/12223-23-3_Clear%20Synth.pdf https://aksci.com/sds/T488_SDS.pdf
Docosane CAS # 629-97-0	http://www.sigmaaldrich.com/MSDS/MSDS/DisplayMSDSPage.do?country=US&language=en&productNumber=134457&

Chemical	Links to Scientific Information
N,N-Dimethylformamide CAS #68-12-2	https://pubchem.ncbi.nlm.nih.gov/compound/6228
Naphthalene CAS # 91-20-3	https://pubchem.ncbi.nlm.nih.gov/compound/931 http://www.inchem.org/documents/iarc/vol82/82-06.html https://www.atsdr.cdc.gov/toxprofiles/tp.asp?id=240&tid=43
2,4-Bis(1,1-dimethylethyl)phenol (syn: 2,4-DTBP) CAS # 96-76-4	http://www.emdmillipore.com/US/en/product/2%2C4-Di-tert-butylphenol,MDA_CHEM-820422 https://www.ncbi.nlm.nih.gov/pubmed/18958741 https://www.ncbi.nlm.nih.gov/pubmed/27830418 https://www.ncbi.nlm.nih.gov/pubmed/24074359 https://www.ncbi.nlm.nih.gov/pubmed/16359495 https://www.ncbi.nlm.nih.gov/pubmed/11689156
9-Octadecenoic acid CAS # 112-79-8	http://www.tcichemicals.com/eshop/en/us/commodity/O0010/ http://www.sigmaaldrich.com/MSDS/MSDS/DisplayMSDSPage.do?country=US&language=en&productNumber=E4637&brand=SIGMA&PageToGoToURL=http%3A%2F%2Fwww.sigmaaldrich.com%2Fcatalog%2Fsearch%3Fterm%3D112-79-8%26interface%3DCAS%2520No.%26N%3D0%26mode%3Dmatch%2520partialmax%26lang%3Den%26region%3DUS%26focus%3Dproduct
Eicosane CAS # 112-95-8	http://www.tcichemicals.com/eshop/en/us/commodity/S0292/
Bis-(2-ethylhexyl)phthalate (2 names in table) (DEHP) CAS # 117-81-7	http://www.tcichemicals.com/eshop/en/us/commodity/P0297/
Isoquinoline CAS # 119-65-3	http://www.tcichemicals.com/eshop/en/us/commodity/I0182/

Chemical	Links to Scientific Information
N-Butyl-benzenesulfonamide CAS # 3622-84-2	http://www.sigmaaldrich.com/MSDS/MSDS/DisplayMSDSPage.do?country=US&language=en&productNumber=B90653&brand=ALDRICH&PageToGoToURL=http%3A%2F%2Fwww.sigmaaldrich.com%2Fcatalog%2Fsearch%3Fterm%3D3622-84-2%26interface%3DCAS%2520No.%26N%3D0%26mode%3Dmatch%2520partialmax%26lang%3Den%26region%3DUS%26focus%3Dproduct https://www.ncbi.nlm.nih.gov/pubmed/26291892
Triacontane CAS # 638-68-6	https://toxnet.nlm.nih.gov/cgi-bin/sis/search/a?dbs+hsdb:@term+@DOCNO+8360
4,4 -Diphenylmethane diisocyanate CAS # 101-68-8	http://www.emdmillipore.com/US/en/product/Diphenylmethane-44-diisocyanate,MDA_CHEM-820797 http://www.sigmaaldrich.com/catalog/product/mm/820797?lang=en&region=US http://www.tcichemicals.com/eshop/en/us/commodity/D0897/?gclid=CKCY9_z7gNMCFUOewAodcLMCwA
N-Cyclohexylcyclohexanamine CAS # 101-83-7	http://www.tcichemicals.com/eshop/en/us/commodity/D0435/?gclid=CNul64yBgdMCFZCLaQod2r0Nzg
Xylene CAS # 1330-20-7	https://chem.nlm.nih.gov/chemidplus/name/xylene
2-(2-Butoxyethoxy)ethanol CAS # 112-34-5	http://www.sigmaaldrich.com/catalog/product/aldrich/579963?lang=en&region=US&gclid=CLfQycalgdMCFQaOaQodi18DcQ
Oleic acid CAS # 112-80-1	http://www.chemicalbook.com/ProductChemicalPropertiesCB7228241_EN.htm#MSDSA
Benzophene CAS # 119-61-9	https://pubchem.ncbi.nlm.nih.gov/compound/3102 (Benzophenone) https://pubchem.ncbi.nlm.nih.gov/patent/US2004260071
Bis-(2-hydroxyethyl) lauramide CAS # 120-40-1	http://www.thegoodscentscompany.com/data/rw1301071.html https://chem.nlm.nih.gov/chemidplus/name/bis(2-hydroxyethyl)lauramide

Chemical	Links to Scientific Information
N-Butyl stearate CAS # 123-95-5	http://www.tcichemicals.com/eshop/en/us/commodity/S0077/ http://www.sigmaaldrich.com/MSDS/MSDS/DisplayMSDSPage.do?country=US&language=en&productNumber=85720&brand=ALDRICH&PageToGoToURL=http%3A%2F%2Fwww.sigmaaldrich.com%2Fcatalog%2Fproduct%2Faldrich%2F85720%3Flang%3Den
Diphenyl sulfone CAS # 127-63-9	http://www.tcichemicals.com/eshop/en/us/commodity/P0231/ https://chem.nlm.nih.gov/chemidplus/rn/127-63-9
Dimethyl phthalate CAS # 131-11-3	http://www.tcichemicals.com/eshop/en/us/commodity/P0302/ http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0151444
1-methylethyl ester hexadecanoic acid (syn: isopropyl palmitate CAS # 142-91-6	https://chem.nlm.nih.gov/chemidplus/name/isopropyl%20palmitate
Mercaptobenzothiazole CAS # 149-30-4	http://www.tcichemicals.com/eshop/en/us/commodity/M0055/ https://toxnet.nlm.nih.gov/cgi-bin/sis/search/a?dbs+hsdb:@term+@DOCNO+4025
Stearyl oleate CAS # 17673-49-3	http://www.sigmaaldrich.com/catalog/product/sigma/o5505?lang=en&region=US
4-Biphenylester benzoic acid CAS # 2170-13-0	http://www.tcichemicals.com/eshop/en/us/commodity/B1866/ http://www.chemicalbook.com/ChemicalProductProperty_US_CB9723124.aspx
Methyl ester 9- octadecanoic acid CAS # 2462-84-2	http://www.chemicalbook.com/ChemicalProductProperty_EN_CB4498092.htm
Dipropylene glycol isomers CAS # 25265-71-8	https://chem.nlm.nih.gov/chemidplus/rn/25265-71-8
Di-tert-butylphenol isomers CAS # 26746-38-3	http://www.chemnet.com/cas/en/26746-38-3/2,3-di-tert-butylphenol.html

Chemical	Links to Scientific Information
10-Octadecenoic acid, octadecyl ester (or isomer) (syn: stearyl stearate) CAS # 2778-96-3	http://www.sigmaaldrich.com/MSDS/MSDS/DisplayMSDSPage.do?country=US&language=en&productNumber=S4627&brand=SIGMA&PageToGoToURL=http%3A%2F%2Fwww.sigmaaldrich.com%2Fcatalog%2Fsearch%3Fterm%3D2778-96-3%26interface%3DCAS%2520No.%26N%3D0%2B%26mode%3Dpartialmax%26lang%3Den%26region%3DUS%26focus%3Dproduct https://toxnet.nlm.nih.gov/cgi-bin/sis/search2/r?dbs+toxline:@term+@r+2778-96-3+@OR+@all+%22%22
Cyclododecane CAS # 294-62-2	http://www.chemicalbook.com/ProductMSDSDetailCB7783577_EN.htm https://pubchem.ncbi.nlm.nih.gov/compound/9268#section=Non-Human-Toxicity-Excerpts
9-Octadecenamide (syn: oleamide) CAS # 301-02-0	http://www.sigmaaldrich.com/catalog/product/sigma/o2136?lang=en&region=US
Triethylene glycol mono dodecyl ether (syn: PEG-3 lauryl ether, laureth 3 oxyethylene ether) CAS # 3055-94-5	http://www.sigmaaldrich.com/MSDS/MSDS/DisplayMSDSPage.do?country=US&language=en&productNumber=P8425&brand=SIGMA&PageToGoToURL=http%3A%2F%2Fwww.sigmaaldrich.com%2Fcatalog%2Fsearch%3Fterm%3D3055-94-5%26interface%3DCAS%2520No.%26N%3D0%26mode%3Dmatch%2520partialmax%26lang%3Den%26region%3DUS%26focus%3Dproduct https://www.ncbi.nlm.nih.gov/pubmed/12399167
Benzenepropanoic acid, 3-(1,1-dimethyl ethyl)-4-hydroxy-5-methyl-,1,2-ethanediyl (syn: Irganox 245) CAS # 36443-68-2	http://www.lookchem.com/cas-364/36443-68-2.html https://www.ncbi.nlm.nih.gov/pubmed/1987652?dopt=AbstractPlus https://www.ncbi.nlm.nih.gov/pubmed/8317193?dopt=AbstractPlus https://www.ncbi.nlm.nih.gov/pubmed/10496675
Decyl oleate (syn: decyl 9-octadecenoate; 9-octadecenoic acid, decyl ester) CAS # 3687-46-5	http://www.mpbio.com/product.php?pid=05210144&country=223 https://chem.nlm.nih.gov/chemidplus/sid/0003687465

Chemical	Links to Scientific Information
Dodecyl palmitate (syn: laurel palmitate; hexadecanoic acid, dodecyl ester) CAS # 42232-29-1	http://www.cir-safety.org/sites/default/files/alkyle122012tent_faa_final%20for%20posting.pdf https://druginfo.nlm.nih.gov/drugportal/rn/42232-29-1
Ethylbenzaldehyde CAS # 4748-78-1	http://www.chemblink.com/MSDS/MSDSFiles/4748-78-1_Asdi.pdf https://pubchem.ncbi.nlm.nih.gov/compound/20861#section=Top
1-(2-Butoxyethoxy)ethanol, also listed as 2-butoxyethoxy)ethanol CAS # 54446-78-5	http://www.thegoodscentscopy.com/data/rw1124831.html https://pubchem.ncbi.nlm.nih.gov/compound/41088#section=WIPO-IPC
2-Ethylhexyl ester benzoic acid (ethylhexyl benzoate) CAS # 5444-75-7	http://ws.eastman.com/ProductCatalogApps/PageControllers/MSDS_PC.aspx?Product=71071467 https://pubchem.ncbi.nlm.nih.gov/compound/94310#section=BioAssay-Results
Palmitic acid CAS # 57-10-3	https://www.caymanchem.com/msdss/10006627m.pdf
1,8-Diazacyclotetradecane-2,9-dione CAS # 5776-79-4 CAS # 56403-09-9	http://lb.chemie.uni-hamburg.de/static/RN/1_5757-62-0%20...%205867-98-1.php?content=law/588/Kv49goXIY#ECHA-pre (Lists other CAS # for same name: CAS-Number: 56403-09-9 (dimer)) http://www2.mst.dk/Udgiv/publications/2015/04/978-87-93352-07-0.pdf https://application.wiley-vch.de/stmdata/pdf/Compound_List.pdf https://chem.nlm.nih.gov/chemidplus/sid/0056403099
2-(Methylthio)-benzothiazole CAS # 615-22-5	http://www.molbase.com/en/msds_615-22-5-moldata-46815.html#tabs

Chemical	Links to Scientific Information
Benzoic acid CAS # 65-85-0	https://pubchem.ncbi.nlm.nih.gov/compound/243 https://toxnet.nlm.nih.gov/cgi-bin/sis/search/a?dbs+hsdb:@term+@DOCNO+704 https://chem.nlm.nih.gov/chemidplus/rn/65-85-0
2,6-Dibromo-4-nitrobenzenamine CAS # 827-94-1	https://fscimage.fishersci.com/msds/10076.htm https://toxnet.nlm.nih.gov/cgi-bin/sis/search2/r?dbs+hsdb:@term+@rn+@rel+827-94-1 https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/notification-details/127864/837766
1-Methyl-naphthalene CAS # 90-12-0	https://pubchem.ncbi.nlm.nih.gov/compound/7002 https://pubchem.ncbi.nlm.nih.gov/compound/1-methylnaphthalene#section=Food-Additives-and-Ingredients http://toxnet.nlm.nih.gov/cgi-bin/sis/search/r?dbs+hsdb:@term+@rn+@rel+90-12-0
1,1'-Biphenyl (syn: lemonene) CAS # 92-52-4	https://pubchem.ncbi.nlm.nih.gov/compound/7095 http://www.sigmaaldrich.com/MSDS/MSDS/DisplayMSDSPage.do?country=US&language=en&productNumber=W312908&brand=ALDRICH&PageToGoToURL=%252Fcatalog%252Fsearch%253Fterm%253D92-52-4%2526interface%253DCAS%2BNo.%2526N%253D0%2B%2526mode%253Dpartialmax%2526lang%253Den%2526region%253DUS%2526focus%253Dproduct http://www.inchem.org/documents/icsc/icsc/eics0106.htm
2,6-Dichloro-4-nitrobenzenamine (syn: dicloran - fungicide) CAS # 99-30-9	http://www.chemicalbook.com/ProductMSDSDetailCB9854765_EN.htm https://toxnet.nlm.nih.gov/cgi-bin/sis/search2/r?dbs+hsdb:@term+@rn+99-30-9