

What is on the ingredients list?

You may be surprised!

Harmful or Carcinogenic Ingredients Commonly Found in Products

This is just a small example of ingredients that may be found in many of the personal care and household products available on the market.

Diethanolamine (DEA) (*Cosmetic creams, hair spray, paracetamol elixirs*)

Triethanolamine (TEA) (*Cosmetics, transparent soaps, hand cream, soap, detergent, shampoo, after sun gel*)

Sodium Laureth Sulphate (SLES) (*shampoo, dishwashing liquid*)

Propylene Glycol (*Shampoo, hand/body lotion, cosmetics, industrial anti-freeze, moisturisers, hair conditioners, baby wipes, detergent, soap, hand cream, hair dye, mascara, antibiotics, medications*)

Sodium Lauryl Sulphate (SLS) (*Industrial cleaners, toothpaste, cosmetics, soaps, shampoo, bubble bath, bath and shower gels, facial cleansers, car wash soaps, antibiotic tablets, mascara*)

Sodium Fluoride (*toothpaste*)

Alcohol (*Industrial cleaners, toothpaste, cosmetics, soaps, shampoo, bubble bath, bath and shower gels, facial cleansers, car wash soaps, antibiotic tablets, mascara*)

Talc – (*cosmetics, condoms, body powder, foundations, pencil*)

Glycerine (*Cosmetics, toothpaste, eye gel, mouthwash, shampoo, hand/ body cream, personal lubricant*)

PABA (*sunscreens*)

PEG (*Antiperspirant, hair tonic, lipstick, cosmetic creams, ointments*)

Ether (*Shampoo, conditioner*)

Coal Tars (*Medicated shampoo, toothpaste, facial cosmetics, vitamin enriched creams, hand and body lotions, hair/eyelash dyes, lipstick, psoriasis medication*)

Aluminium (*antiperspirants*)

Acetone (*Nail polishes/varnishes, perfume, dishwashing liquid/detergents, nail enamel remover, fragrances*)

Formaldehyde (*Bubble bath, toothpaste, shampoo, nail polish, varnishes, hardeners, enamels, embalming fluid, soap, mouthwash, mascara, permanent press and wrinkle resistant clothing, cosmetics, carpets, plastics, particle board, plywood, building insulation, wick type room deodorisers, air fresheners, mould and mildew cleaners, anti-dandruff shampoo*)

Dioxins (*shampoo*)

Mineral Oil (*Detergent/soap, liquid foundation make-up, pencil, lip gloss*)

Below is more detailed information on each of the ingredients listed above.

Diethanolamine (DEA) – *Cosmetic creams, hair spray, paracetamol elixirs*

One of the glycol's that is hazardous at concentrations over 5%, even when used on small areas of the body. Fatal if ingested and toxic if absorbed through the skin in significant amounts. It should never be used in sunscreens etc. that are applied over large areas of the body. Ingestion of large amounts can cause death; symptoms that may occur include nausea, dizziness, and pain in the region of the kidneys, oliguria and anuria. Paracetamol elixirs with diethylene glycol as a diluent were responsible for large number of infant deaths due to renal failure. Ethylene glycol is listed as a teratogen (DPIM).

Teratogen – an agent or influence that causes physical defects in the developing embryo.

DPIM – 7th edition of "Dangerous Properties of Industrial Materials".

Source: Silent Killers – More than you paid for! And other Chemicals Found in Personal Care Products – P M Taubert

Triethanolamine (TEA) – *Cosmetics, transparent soaps, hand cream, soap, detergent, shampoo, after sun gel*

Often used in "no-rinse" shampoos where it remains on the hair and is readily absorbed into the body. It may form carcinogenic nitrosamines if it comes in contact with any ingredient that acts as a nitrosating agent or if it is contaminated with a nitrosating agent e.g. Sodium nitrite, 2-bromo-2-nitropropane-1,3-diol (BNPD). It can cause irritation and sensitivity if more than 5 percent is used in a formulation. Listed as an allergen by the *National Institute of Health Science* (USA). The *University of Bologna* found it to be the most common sensitiser among the common emulsifiers found in cosmetics. It has caused fatal GI poisoning in tests on guinea pigs. Unless it is

purified it may be contaminated with NDELA. It can form carcinogenic nitrosamines if used with any formaldehyde releasing ingredients e.g. Imidazolidinyl urea, Quaternium-15, 2-bromo-2-nitropane-3,1-diol or DMDM hydantoin. Triethanolamine compounds cause allergic contact dermatitis and severe facial dermatitis. In animals it has caused liver and kidney damage.

Source: Silent Killers – More than you paid for! And other Chemicals Found in Personal Care Products – P M Taubert

Sodium Laureth Sulfate (Sodium lauryl ether sulphate) – Shampoo, dishwashing liquid

It stays on the hair long after the shampoo, etc. has been rinsed off and over a period of time strips the hair of acids, amino acids and moisture. In animal studies it was found to cause cancer of the liver and nasal passages when ingested and when placed on the skin it caused skin cancer. An inexpensive chemical used as a detergent. It is irritating to the scalp and may cause hair loss. Over a period of time it can increase the toughness and dryness of hair by stripping it of moisture, acids and nutrients. It may be contaminated with the carcinogen 1,4-Dioxane.

Source: Silent Killers – More than you paid for! And other Chemicals Found in Personal Care Products – P M Taubert

Propylene Glycol (1,2 Propanediol) – Shampoo, hand/body lotion, cosmetics, industrial anti-freeze, moisturisers, hair conditioners, baby wipes, detergent, soap, hand cream, hair dye, mascara, antibiotics, medications.

Listed as an allergen by the *National Institute of Health Science (USA)*. The EDF lists it as a suspected neurotoxicity hazard. In persons suffering with renal failure that cannot excrete propylene glycol in the urine, such retention caused severe CNS depression and lactic acidosis. It may cause primary skin irritation due possibly to dehydration, though it does not seem to be a sensitiser. Seizures have been reported in a child that ingested a medication containing propylene glycol. As much as 2% of those suffering from eczema show allergic contact dermatitis to propylene glycol. Taken orally it can reduce intra-ocular pressure by raising osmotic pressure of blood. A carcinogen in animal trials, and it is also a teratogen. Found to be more toxic when ingested than when taken intravenously. Causes occupational allergic contact dermatitis. Used in moisturisers and has been shown to provoke acne eruptions. It accumulates in the heart, liver and kidneys (causing abnormalities and damage) and weakens the immune system. Drying to the skin if a moisturizer is not added. It may be made from vegetable glycerine and grain alcohol, but generally is not. In 1992 the FDA proposed a ban on propylene glycol in louse killing products.

FDA – Food and Drug Administration of America

EDF – Environmental Defense Fund, a chemical information service.

Teratogen – an agent or influence that causes physical defects in the developing embryo

Source: Silent Killers – More than you paid for! And other Chemicals Found in Personal Care Products – P M Taubert

Sodium Lauryl Sulphate – Industrial cleaners, toothpaste, cosmetics, soaps, shampoo, bubble bath, bath and shower gels, facial cleansers, car wash soaps, antibiotic tablets, mascara

It can produce allergic sensitivity reactions, may be drying and irritating to the skin and is moderately toxic by ingestion, it is also reported to be the most common cause of eye irritation by commercial shampoos. It is more toxic when ingested than when taken intravenously. It stays on the hair long after the shampoo etc has been rinsed off and over a period of time strips the hair of acids, amino acids and moisture. Listed as having teratogenic properties (DPIM). Sodium lauryl sulphate from shampoo can cause cataracts and it does not have to come in contact with the eye for this to happen as it readily penetrates skin and travels to the eyes and other organs. Ingested orally or applied topically it accumulates in and damages the liver and brain. Applied topically it causes skin allergies, contact eczema, dermatitis and damages the stratum corneum. It remains in the body for approximately 5 days after being applied to skin. In toothpaste it can cause mouth ulcers. Retained for a long time in the tissue it can penetrate into the eyes and also into systemic tissue e.g. brain, liver, kidneys, etc through the skin. Causes eye irritation, skin rash, hair loss and allergic reactions. Infants and children are at particular risk as the tissue of young eyes may be more susceptible to alteration and because their skin is very absorbent. It causes improper eye development in babies and children as it affects the protein structure of the eyeball and can cause blindness.

Combined with any of the following chemicals it causes nitrosating agents to form:

2-bromo-2nitropropane-1,3-diol

Cocoyl sarcosine

Diethanolamine (DEA)

Imidazolidinyl urea

Formaldehyde

Lauryl sarcosine

Hydrolyzed animal protein
 Monoethanolamine (MEA)
 Quaternium-7, 15, 31, 60 etc
 Sodium methyl cocoyl taurate
 Triethanolamine (TEA)

Human toxicity for both nitrate and nitrite is well proven, nitrite is the more toxic but nitrate converts readily in the human body to nitrite. It has been estimated that between 50 and 100 micrograms of nitrosamines are applied to the skin when using shampoo, etc that contains nitrates. To consume the same amount of this carcinogen you would have to eat over 1 lb of bacon.

Teratogen – an agent or influence that causes physical defects in the developing embryo

DPIM – 7th edition of “Dangerous Properties of Industrial Materials”.

Source: Silent Killers – More than you paid for! And other Chemicals Found in Personal Care Products – P M Taubert

Sodium Fluoride (Sodium monofluoride) – toothpaste

It can cause nausea, vomiting and death if enough is consumed. Mottling of tooth enamel has been reported. A strong irritant to tissue, burns to the eyes can be devastating. The ingestion of as little as 1g has caused dangerous poisoning, with 5 to 10 g almost certainly being lethal. Target organs are the eyes, skin and respiratory system, CNS, Skeleton and kidneys. Symptoms of exposure include diarrhoea, calcification of the ligaments of the ribs and pelvis, abdominal pain and dermatitis.

CNS – Central nervous system (the brain and spinal cord). CNS depression is characterised by drowsiness, dizziness, headache, unconsciousness, coma and death.

Source: Silent Killers – More than you paid for! And other Chemicals Found in Personal Care Products – P M Taubert

Alcohol (Ethyl alcohol, Ethanol) – Mouthwash, perfumes, after-shave lotion, cold cream, bubble bath, nail polish remover, shaving cream, suntan lotion, shampoo, nail enamel

It is a solvent that can remove oil from the skin and may cause irritation or dermatitis. The risk of developing oral cancer from high alcohol content mouthwash is 60% greater for men and a staggering 90% greater for women. Mouthwash containing alcohols have been accused of causing more than 10,000 cases of poisoning in children under 6 years of age in a five year period. As little as 30 ml of such mouthwash can cause seizures, brain damage and coma in children or infants and 150 ml is likely to cause death. Some reports state that extensive use of alcohol based mouthwash may cause oral cancer in adults. When ingested in product alcohol causes body tissues to be more vulnerable to cancers. Mouthwashes with an alcohol content greater than 25% are implicated in mouth, tongue and throat cancer (women being at greater risk than men are. When ingested alcohol can cause a drop in a child's blood sugar levels. May be drying to both hair and skin if used on the body to excess.

Source: Silent Killers – More than you paid for! And other Chemicals Found in Personal Care Products – P M Taubert

Talc (Powdered magnesium silicate) – cosmetics, condoms, body powder, foundations, pencil.

Cosmetic talc is carcinogenic (contains asbestos), the powdered formulations pose the greatest risk while liquid talc products may not have any cancer risk. Associated with lung irritation when inhaled, especially for babies.

Talc that contains no asbestos and less than 1% quartz is irritating to the eyes and causes fibrotic pneumoconiosis. Used on the surface of male condoms it may cause fibrosis on a woman's fallopian tubes, rendering her infertile. Talcum powder is well known as a cause of ovarian cancer and it increases the risk of non-Hodgkin's lymphoma. A report published in the *American Journal of Epidemiology* found that women who used talcum powder in the genital region had an increased ovarian cancer risk of 60% (another report shows a 328 times greater risk) and that women using deodorant sprays had a 90% increased risk. It has been estimated that 10% of all ovarian cancers may be linked to the use of talcum powder. A study conducted by the FDA in 1972 found that 39 out of 40 samples of talc that were tested contained asbestos.

FDA – Food and Drug Administration of America

Source: Silent Killers – More than you paid for! And other Chemicals Found in Personal Care Products – P M Taubert

Glycerin (Glycerine, Glycerol) – Cosmetics, toothpaste, eye gel, mouthwash, shampoo, hand/ body cream, personal lubricant

A humectant that makes skin feel moist by drawing moisture from deep in the skin where it is needed for cell function and waste transportation. The FDA issued a notice in 1992 to the effect that it has not been shown to be safe and effective as claimed in a number of products, including those for nappy rash. Listed as a neurotoxicant by the *National Research Council (USA)*. Side effects from ingesting glycerin are headaches, nausea and vomiting. Less frequent symptoms are diarrhoea. Frequent dizziness, dry mouth or increased

thirst. It should be administered to people with cardiac, renal or hepatic disease or diabetes with caution. Unless the environmental humidity is over 65% glycerine will remove moisture from the skin. Causes skin irritation and hypersensitivity.

FDA – Food and Drug Administration of America

Source: Silent Killers – More than you paid for! And other Chemicals Found in Personal Care Products – P M Taubert

Para Aminobenzoic Acid (PABA) (4-Aminobenzoic acid) – Sunscreen

A photon activating chemical that can make susceptible people likely to develop skin cancer. Titanium dioxide in the same product can help to limit, though not fully prevent any harmful effects. When exposed to sunlight PABA generates oxygen radicals that can harm DNA strands. It may cause allergic eczema and sensitivity to sunlight in susceptible people. Causes photosensitivity and contact dermatitis.

Source: Silent Killers – More than you paid for! And other Chemicals Found in Personal Care Products – P M Taubert

PEG (Polyethylene glycol/Polyethylene) – Antiperspirant, hair tonic, lipstick, cosmetic creams, ointments

The higher the number, the harder the composition. (See *Polyethylene glycol*)

Polyethylene Glycol (PEG) – Antiperspirant, lipstick, cosmetic creams

Currently produced materials are supposedly without irritating or sensitising properties. Tested at up to 50% solutions have shown no problems in dermatological patients. Concentrated solutions may cause contact dermatitis and cross-sensitisation occurs with glycols of similar molecular weight. Polyethylene glycol has been shown to be teratogenic in mouse studies. It may carry the contaminant, 1,4-dioxane that readily penetrates human skin and has caused cancer in rodent studies. It can be removed from cosmetics by vacuum stripping.

Teratogenic – relating to or causing developmental malformations

Source: Silent Killers – More than you paid for! And other Chemicals Found in Personal Care Products – P M Taubert

Ether – Shampoo, conditioner

A solvent that may penetrate human skin and adversely affect blood and body organs. It can remove natural body oil and cause skin irritation or dermatitis. The “ethers group” cause adverse reactions and contact dermatitis. Inhalation or ingestion can cause CNS depression. An ingredient in shampoo that stays on the hair long after the shampoo has been rinsed off and over a period of time strips the hair of acids, amino acids and moisture.

CNS – Central nervous system (the brain and spinal cord). CNS depression is characterised by drowsiness, dizziness, headache, unconsciousness, coma and death.

Source: Silent Killers – More than you paid for! And other Chemicals Found in Personal Care Products – P M Taubert

Coal Tar and Coal Tar Dyes – Medicated shampoo, toothpaste, facial cosmetics, vitamin enriched creams, hand and body lotions, hair/eyelash dyes, lipstick, psoriasis medication

One of the three main formaldehyde-relating ingredients used in medicated shampoos. Many psoriasis preparations contain coal tar, putting users at increased risk of cancer. Listed as a known human carcinogen by the IARC since 1980. Once extracted from coal but now a by-product obtained from petroleum. Described as being “*Chemically, completely unnatural*” – “*Exceedingly complex, imperfectly researched and containing impurities of uncertain properties*”. Many permanent hair dyes contain up to 12 coal tar chemicals. Hair colouring made from coal tar was given a special exemption from bans imposed on foods, etc in 1938. Listed by the IARC as a confirmed human carcinogen. Listed as an allergen by the *National Institute of Health Science* (USA). The coal tars as a group show comedogenic (acne promoting) properties. Do not dye eyelashes or eyebrows with coal tar dyes as they may cause blindness. The FDA issued a notice in 1992 that coal tar has not been shown to be safe and effective for its stated claim in cosmetic products. Coal tar dyes applied to the skin can cause phototoxicity, dermatitis and cancer, particularly cancer of the lungs, scrotum and skin.

IARC – International Agency for Research on Cancer (World Health Organisation)

FDA – Food and Drug Administration of America

Source: Silent Killers – More than you paid for! And other Chemicals Found in Personal Care Products – P M Taubert

Aluminium – Antiperspirants

Aluminium compounds cause the red corpuscles to aggregate or clump in the capillaries of the body, causing an anaemic condition arising from the reduction of the red corpuscles. Large amounts are found in the brains of Alzheimer’s victims and recent research has proven a positive link with this disease. Aluminium is also linked with osteoporosis and is known to cause placental problems in pregnancy. When used in deodorants there is a link with breast cancer. If you drink orange juice with any food or medicine that contains aluminium the resultant

“aluminium citrate” is five times better able to cross the blood-brain barrier. Likewise if you consume “Maltol – (Food Additive No 636)” which is found in many bakery products then the ability of aluminium to cross the blood-brain barrier increases by as much as ninety times. Some aluminium-calcium or magnesium containing antacids may pass into breast milk, though no problems have been reported. Spray type deodorants that contain aluminium are particularly hazardous, as they are readily absorbed into the brain via the nasal passages. The FDA questions the safety of aerosols containing aluminium salts and has called for long term studies for dangers associated with long term inhalation. There is a strong association between aluminium and epilepsy. Aluminium products are listed as either known or suspected carcinogens (*Cornell Carcinogen Database*). It is suspected of being a neurotoxic hazard (EDF). Aluminium is neurotoxic, and damages DNA, concentrates in the brain and accumulates in the stomach, thyroid, liver, bones (disrupting bone formation). It increases the risk of osteoporosis as it impairs the function of osteoblasts and long term use is associated with increased hip fractures.

FDA – Food and Drug Administration of America

EDF – Environmental Defense Fund, a chemical information service.

Source: Silent Killers – More than you paid for! And other Chemicals Found in Personal Care Products – P M Taubert

Acetone – *Nail polishes/varnishes, perfume, dishwashing liquid/detergents, nail enamel remover, fragrances.*

One of the twenty most common chemicals found in tests on fragrances and one of the 15 most common chemicals found in tests on micro environments (enclosed spaces). It causes skin irritation, dryness of the mouth and throat, nausea, slurred speech, allergic and irritant contact dermatitis, headaches, fatigue, in-coordination, drowsiness and bronchial irritation. It also causes irritation of the eyes, nose and throat, headaches, dizziness and dermatitis. On fingernails it can cause brittleness, peeling and splitting. Causes damage to the liver and kidneys. Severe exposure to fumes can cause coma and death. It is primarily a neurotoxin (EDF) or CNS depressant. The FDA suggested a ban in 1992 for its use in astringent products, as it had not been shown to be safe and effective as claimed.

MSDS ROUTES OF EXPOSURE: The substance can be absorbed into the body by inhalation and through the skin.

FDA – Food and Drug Administration of America

Source: Silent Killers – More than you paid for! And other Chemicals Found in Personal Care Products – P M Taubert

Formaldehyde (Quaternium-15) – *Bubble bath, toothpaste, shampoo, nail polish, varnishes, hardeners, enamels, embalming fluid, soap, mouthwash, mascara, permanent press and wrinkle resistant clothing, cosmetics, carpets, plastics, particle board, plywood, building insulation, wick type room deodorisers, air fresheners, mould and mildew cleaners, anti-dandruff shampoo.*

Between 4% and 8% of the general population is sensitive to formaldehyde. Used as a preservative, it is a confirmed carcinogen (EDF). Listed as an allergen by the *National Institute of Health Science (USA)*. Known to seriously weaken the human immune system and to cause cancer in rodent studies. A neurotoxin. Causes occupational allergic contact dermatitis. In particular it targets the eyes and the respiratory system and can cause nasal cancer. The IARC list is as a probable human carcinogen (*Group 2A*). Banned for use in cosmetics in Japan and Sweden. Severe reactions have been reported when nail hardeners with formaldehyde have been used. The *National Cancer Institute* recommended in 1983 that it needed to be further investigated due to implication with DNA damage and repair inhibiting, mutation, cancer and its ability to potentiate the toxicity of X-rays in human lung cells. It causes skin irritation, allergic and irritant contact dermatitis, headaches, fatigue and bronchial irritation. The vapour is extremely irritating to the eyes, nose and throat (mucous membranes) and is usually detected in the air at under 1-ppm. Eye irritation can be expected at 3 ppm. It can seriously affect asthma sufferers or anyone with lung infection. Known to cause damage and it may act with other chemicals to produce mutagenic and carcinogenic effects.

IARC – International Agency for Research on Cancer (World Health Organisation)

EDF – Environmental Defense Fund, a chemical information service.

Source: Silent Killers – More than you paid for! And other Chemicals Found in Personal Care Products – P M Taubert

Dioxin (TCDD) (2,3,7,8-tetrachlorodibenzo-P-Dioxin)

A contaminant rather than an ingredient, dioxin's carcinogenicity is up to 500,000 times more potent than DDT and has been found in milk and cream packaged in bleached paper cartons. A highly toxic substance often found as a contaminant in Triclosan. Toxic effects in animals include the wasting syndrome, gastric ulcers, immunotoxicity, hepatotoxicity, hepatoporphyrinuria, vascular lesions, chloracne, teratogenicity, ferrotoxicity, impaired reproductive performance, endometriosis and delayed death. Industrial workers exposed to TCDD have developed chloracne, porphyrinuria and porphyria cutanea tarda. It may reasonably be anticipated to be carcinogenic.

**Source: Silent Killers – More than you paid for! And other Chemicals Found in Personal Care Products
– P M Taubert**

Mineral Oil – *Detergent/soap, liquid foundation make-up, pencil, lip gloss.*

May cause acne-type reactions. Causes discolouration of the skin and contains mutagenic polycyclic aromatic hydrocarbons (PAH) and the carcinogen “Anthanthrene” listed by the IARC as a known human carcinogen in 1980. Manufactured from crude oil it will cause petrochemical hypersensitivity that may lead to arthritis, migraine, headaches, hyperkinesia, epilepsy and diabetes. Forms a sticky layer that makes the skin feel moist but actually clogs the pores depriving the tissue of oxygen that is needed for cell division and metabolism. Taken internally mineral oils bind vitamins A, D and E (fat-soluble) and prevent them from being absorbed into the system. All petroleum products will dissolve the skins own natural oils, increasing dehydration of the skin. Unrefined mineral oils may contain carcinogenic substances and they have the potential for skin cancer if exposure is repeated over any length of time. Petrolatum, paraffin's and propylene glycol are other forms of mineral oil which can all cause dermatitis.

**Source: Silent Killers – More than you paid for! And other Chemicals Found in Personal Care Products
– P M Taubert**