# DIRTY THIRTY

# CHEMICALS TO AVOID FOUND IN THE PRODUCTS WE USE DAILY

# CHEMICAL: ALUMINUM ZIRCONIUM and OTHER ALUMINUM COMPOUNDS

**Function:** Used to control sweat and odor in the underarms by slowing down the production of sweat.

Present in: Antiperspirants. Banned by EU.

**Health concerns:** Linked to the development of Alzheimer's Disease; may be linked to breast cancer; probable neurotoxin; respiratory, and developmental toxin.

### CHEMICAL: BENZYL ACETATE

Function: Solvent; hidden within "fragrance."

Present in: Many cosmetics and personal care products, read labels.

Health concerns: Linked to pancreatic cancer; easily absorbs into skin causing quick systemic effects; animal studies show hyperemia of the lungs; possible gastrointestinal, liver, and respiratory toxicant; possible neurotoxin.

# CHEMICAL: BENZALKONIUM CHLORIDE and BENZETHONIUM CHLORIDE

Function: Antimicrobial agent, deodorant, preservative, biocide.

Present in: Moisturizer, sunscreen, facial cleanser, acne treatment, pain

relief. Restricted in Japan and Canada.

Health concerns: Immune system toxicant; may trigger asthma; possible organ system toxicant; animal studies show endocrine disruption and brain, nervous system, respiratory and blood effects; possible carcinogen.

### CHEMICAL: BRONOPOL

Function: Preservative.

**Present in:** Moisturizer, body wash, facial cleanser, makeup remover, anti-aging products. Restricted in Canada.

**Health concerns:** Immune system toxicant; lung and skin toxicant; animal studies show endocrine disruption and gastrointestinal, brain and nervous system effects; irritant.

#### CHEMICAL: BUTYL ACETATE

Function: Solvent in polishes and treatments, prevents chipping.

**Present in:** Nail polish and nail treatments.

**Health concerns:** Repeated exposure causes skin dryness and cracking; vapors may induce drowsiness or dizziness; flammable.

# CHEMICAL: BUTYLATED HYDROXYANTSQLE (BHA)

**Function:** Anti-Oxidant; slows down the rate at which product ingredients change in color.

Present in: Many cosmetics and personal care products, read labels. Banned by EU.

**Health Concerns:** Immune system toxicant; endocrine disruptor; probable human carcinogen; animal studies show brain, liver, neurotoxin, reproductive and respiratory toxicant.

# CHEMICAL: ETHOXYLATED INGREDIENTS: CETEARETH/PEG COMPOUNDS

Function: Surfactant, emulsifying or cleansing agent, penetration enhancer. Present in: Many cosmetics and personal care products, read labels. Health concerns: Animal studies show brain, nervous system and sense organ effects: irritant: reproductive and skin toxin, alters skin structure.

organ effects; irritant; reproductive and skin toxin, alters skin structure, allowing other chemicals to penetrate deep into the skin and increasing the amounts of other chemicals that reach the bloodstream; may contain harmful impurities.

### CHEMICAL: COAL TAR

Function: Controls itching and eczema, softens and promotes the dissolution of hard, scaly, rough skin, also used in hair dyes.

Present in: Shampoo and Hair Dye. Banned by Canada and EU.

Health concerns: Known human carcinogen; skin and respiratory toxicant.

# CHEMICAL: COCAMIDE DEA/ LAURAMIDE DEA

**Function:** used as foaming agents in shampoos and bath products, and as emulsifying agents in cosmetics; foaming and cleansing agents for "mouth feel."

**Present in:** Many cosmetics and personal care products, read labels. **Health concerns:** Human immune system toxicant; forms carcinogenic nitrosamine compounds if mixed with nitrosating agents; animal studies show sense organ effects and skin irritation; may contain harmful impurities.

#### CHEMICAL: DIETHANOLAMINE (DEA)

Function: pH adjuster.

**Present in:** Sunscreen, moisturizer, foundation, hair color.

**Health concerns:** Skin and immune system toxicant; possible carcinogen; irritant; animal studies show endocrine disruption and neuro developmental, brain and nervous system effects; may trigger asthma.

#### CHEMICAL: ETHYL ACETATE

Function: Solvent.

**Present in:** Nail polish products, mascara, tooth whitening, perfume. **Health concerns:** Probable neurotoxin; possible nervous system toxin; possible carcinogen; irritant; highly flammable

#### CHEMICAL: FORMALDEHYDE

Function: Disinfectant, germicide, fungicide, preservative.

Present in: Deodorant, nail polish, soap, shampoo, shaving cream.

Restricted in Canada. Banned by EU.

**Health concerns:** Immune system, respiratory, hematological, and skin toxicant; probable carcinogen and cardiovascular toxicant; can damage DNA; may trigger asthma; animal studies show sense organ, brain, and nervous system effects; possible human development toxicant.

## CHEMICAL: FORMALDEHYDE-RELEASING PRESERVATIVES (QUATERNIUM-15, DMDM HYDANTOIN, DIAZOLIDINYL UREA AND IMIDAZOLIDINYL UREA)

Function: Anti-microbial preservative.

**Present in:** Many cosmetics and personal care products, read labels. **Health concerns:** Same as Formaldehyde. May contain harmful immurities.

# CHEMICAL: FRAGRANCE (PARFUM)

Function: Deodorant, masking, perfuming

Present in: Many cosmetics and personal care products, fead labels. Health concerns: Immune system toxicant; possible neurotoxin; can contain between 10 and 300 different chemicals, many of which have never been tested for safety; see phthalates. Labeling can be confusing. If uncertain, check with manufacturer.

### CHÉMICAL: HYDROQUINONE

Function: Antioxidant, fragrance ingredient, skin bleaching agent, hair colorant.

Present in: Skin fading/lightener, facial moisturizer, anti-aging, sunscreen, hair color, facial cleanser and moisturizer. Restricted in Canada.

Health concerns: Immune system and respiratory toxicant; probable neurotoxin; possible carcinogen; irritant; animal studies show endocrine disruption.

# CHEMICAL: IODOPROPYNYL BUTYLCARBAMATE

Function: Preservative.

**Present in:** Many cosmetics and personal care products, read labels. Restricted in Japan.

**Health concerns:** Human toxicant; possible liver immune system toxin; allergenic.

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### CHEMICAL: LEAD and LEAD COMPOUNDS

Function: Colorant.

Present in: Hair dye, hair products. Traces found in some red lipstick.

Restricted in Canada.

Health concerns: Probable carcinogen; developmental, respiratory, gastrointestinal and reproductive toxicant; reduced fertility; animal studies show metabolic, brain and nervous system effects; suspected nano-scale ingredients with potential to absorb into the skin

## CHEMICAL: METHYLISOTHIAZOLINONE (MI/MCI) and

# **METHYCHLOROISOTHIAZOLINONE**

Function: Preservative.

Present in: Many cosmetics and personal care products, read labels. Restricted in Canada and Japan.

Health concerns: Immune system toxicant; animal studies show restricted growth of the axons and dendrites of immature nerves, neurotoxicity and positive mutation results; can lead to a malfunction in the way neurons communicate with each other; especially detrimental to a developing nervous system.

# CHEMICAL: OXYBENZONE

(BENZOPENONE-3)

Function: Sunscreen Agent; Ultraviolet Light Absorber; UV Absorber; UV

Health concerns: Associated with photoallergic reactions and immunotoxicity. Probable carcinogen and endocrine disruptor; Enhanced skin absorption and bioaccumulates to dangerous levels; biochemical cellular changes. Developmental and reproductive toxicity.

# CHEMICAL: PARABENS (METHYL, ETHYL, PROPYL AND BUTYL)

Function: Preservative and anti-bacterial agent.

Present in: Many cosmetics and personal care products, read labels. Health concerns: May alter hormone levels, possibly increasing risk for certain types of cancer, impaired fertility, or alteration of the development of a fetus or young child; studies have found parabens in breast tumors; probable skin toxicant; animal studies show brain and nervous system effects

# CHEMICAL: PETROLATUM

Function: Forms barrier on skin; makes lipsticks shine and creams smoother; inexpensive skin softener.

Present in: Many cosmetics and personal care products, read labels. Banned

Health concerns: May be contaminated with impurities, linked to cancer or other significant health problems.

# CHEMICAL: PHTHALATES (DIBUTYL PHTHALATES)

Function: Fragrance ingredient, plasticizer, solvent.

Present in: Many cosmetics and personal care products, read labels. Banned

Health concerns: Immune system toxicant; developmental and reproductive toxin; respiratory toxicant; probable neurotoxin; possible carcinogen and endocrine disruptor; bio-accumulative in wildlife.

#### CHEMICAL: P-PHENYLENEDIAMINE (PPD)

Function: Hair colorant.

Present in: Hair dye, shampoo, hair spray. Restricted in Canada. Health concerns: Immune system and respiratory toxicant; probable neurotoxin; eczema; possible nervous system, skin, kidney and liver toxicant; irritant; may trigger asthma and gastritis; shown to cause cancer in animal studies

### CHEMICAL: PROPYLENE GLYCOL

Function: Solvent, penetration enhancer, conditions skin, controls viscosity and keeps products from melting in high or freezing when it is cold. Present in: Many cosmetics and personal care products, read labels. Health concerns: Alters skin structure, allowing other chemicals to penetrate deep into the skin and increasing the amounts of other chemicals that reach the bloodstream; animal studies show reproductive effects, positive mutation results, brain and nervous system effects and endocrine disruption.

### CHEMICAL: SODIUM LAURETH SULFATE/ SODIUM LAURYL SULFATE

Function: Cleansing and foaming agent - Surfactant, emulsifying agent,

Present in: Many cosmetics and personal care products, read labels. Health concerns: Alters skin structure, allowing other chemicals to penetrate deep into the skin, increasing the amounts of other chemicals that reach the bloodstream; Irritant; Hormone disruptor. May cause hair follicle, skin and eye damage.

#### CHEMICAL: TALC

Function: Absorbs moisture, anti-caking agent, bulking agent. Present in: Blush, powder, eye shadow, baby powder, deodorant. Health concerns: Carcinogen; link between talcum powder and ovarian cancer; talc particles are similar to asbestos particles and data suggests that it can cause tumors in the lungs; probable respiratory toxin.

#### CHEMICAL: TOLUENE

Function: Antioxidant, solvent to improve adhesion and gloss.

Present in: Nail polish and hair dye.

Health concerns: Liver toxin; probable developmental, nervous system and respiratory toxin; possible cardiovascular, musculoskeletal, renal and sense organ toxin; possible carcinogen and reproductive toxin; irritant; highly

#### CHEMICAL: TRICLOSAN

Function: Anti-bacterial agent, deodorant, preservative, biocide. Reduces and controls bacterial contamination on the hands and on treated products. Present in: Antibacterial soaps, deodorants, toothpastes, mouthwashes, face wash and cleaning supplies. Restricted in Japan and Canada.

Health concerns: Probable endocrine disrupter and carcinogen; easily bio-accumulates to dangerous levels; irritant; animal studies show reproductive and other broad systematic effects; potentially contaminated with impurities linked to cancer and other significant health problems.

### CHÉMICAL: TRIETHANALOMINE (TEA)

Function: Fragrance ingredient, pH adjuster, surfactant

Present in: Hand & body lotion, shaving creams, soap, shampoo, bath powders and moisturizer.

Health concerns: Immune system toxicant; possible carcinogen; animal studies show endocrine disruption; may trigger asthma; forms carcinogenic nitrosamine compounds if mixed with nitrosating agents.

### CHEMICAL: 1.4 DIOXANE

Function: Penetration enhancer

Present in: body lotion, moisturizers, sunless tanning products, baby soap, anti aging products.

Health concerns: EPA classifies it as a probable human carcinogen found in 46 of 100 personal care products marketed as organic or natural, and the National Toxicology Program considers it a known animal carcinogen Acute (short-term) inhalation exposure to high levels of 1,4-dioxane has caused vertigo, drowsiness, headache, anorexia and irritation of the eyes, nose, throat, and lungs in humans. It may also irritate the skin.