

VOIC Identifying Information (Tentative Identification; Molecular formula; Molar Mass (g/mol); Cas #)	Reason for Inclusion	Is it a Byproduct?	Potential Breakdown Products; Half life	Sources	Function	Health Impacts (Accessibility Barriers)	Exposure Routes	Odour threshold	Category (ED, carcinogen, sensitizer (possible sensitization of TRP receptors)	Environmental Presence (Air, Water, Soil)	Indoor Air Threshold Limit Values (Canada)	Chemical of Concern Lists and International Regulations
.alpha-pinene C ₁₀ H ₁₆ 136.24 #: 80-56-8	Cas Found commonly in scent-free office spaces, and coventional/ eco-friendly tested products by ASEQ-EHAQ	N/A	Formaldehyde, acetone, acetaldehyde, pinonaldehyde, carboxyl acids, and ultrafine particles; 4 days Calogirou, (1999); Rolletter et al. (2019)	Essential oils from plants, air fresheners, fragrance-containing personal care and cleaning items (natural/green eco-friendly) laundry products; wooden-based materials (soft woods and wooden flooring) Waidyanatha et al. (2021)	Fragrance and flavoring (pine smell); antimicrobial	Bladder effects Upper respiratory tract irritation Skin allergies / irritation NTP. (2016); NCBI. (n.d.)	Inhalation, ingestion, dermal	Pine odour; 0.003 ppm (low sensory irritation potential) Skulberg. (2019); NCBI. (n.d.)	Nephrotoxin , respiratory, skin and eye irritant , skin sensitizer (potential allergen) NTP. (2016); NCBI. (n.d.)	Air, soil, water NCBI. (n.d.)	Not specified	See here: Presence on lists: https://comptox.epa.gov/dashboard/chemical/details/DTXSID4026501
.alpha-methylstyrene C ₉ H ₁₀ 118.18 Cas #: 98-83-9	Found in IAQ testing, Hazardous to health and environment	N/A	Acetophenone and acetol; 2-7 hours Tajuelo et al, (2019); NCBI, (n.d.)	Personal care products / cosmetics (lipstick), Household maintenance (coatings, paints, inks, adhesives, and sealants, polystyrene insulation materials) NTP, (1986)	Fragrance, flavoring, chemical intermediate, solvent	Evidence of cancer incidence in females - hepatocellular adenomas and carcinomas Reproductive toxicity potential Dermatitis – skin exposure May exacerbate COPD symptoms NTP, (2007); OEHHA, (2014); NCBI, (n.d.)	Inhalation, ingestion, dermal	50 ppm NTP, (1986)	Possible carcinogen (IARC; Group 2B) Possible endocrine disrupting chemical (OEHHA) Neurotoxin ; IARC, (n.d); NCBI, (n.d.); OEHHA, (2014)	Air, soil, water, bio- accumulation potential in water NCBI, (n.d.)	Not specified	See here: Presence on lists: https://comptox.epa.gov/dashboard/chemical/details/DTXSID9025661
.beta-Myrcene C ₁₀ H ₁₆ 136.23 Cas #: 123-35-3	Found in Eco-friendly tested products by ASEQ-EHAQ. Hazardous to health and environment	N/A	Hydroxy acetone, formaldehyde, formic acid, and acetone; 3 minutes to 2 hours Calogirou, (1999); NCBI, (n.d.)	Cleaning products (disinfectants, air fresheners, laundry products, scent-boosters, carpet cleaners, window cleaners), Cosmetics Personal care products (soaps, perfumes), Essential oils : verbena, galbanum, and lemongrass oils EPA (n.d.); NTP, (2010)	Fragrance, flavouring agent, chemical intermediate	May increase risk of cancer to the liver and kidney Known to induce dermatitis, conjunctivitis, somnolence, and asthma symptoms NTP, (2010); Warembourg, (2019)	Inhalation, ingestion, dermal	Not available, extremely potent smell	Possible carcinogen (IARC; Group 2B; OEHHA), and irritant Felter at al, 2020, OEHHA, (2015)	Air, soil, water (very toxic to aquatic life) NCBI, (n.d.)	Not specified	See here: Presence on lists: https://comptox.epa.gov/dashboard/chemical/details/DTXSID6025692
1-Butanol □ C ₄ H ₁₀ O Cas #: 71-36-3	74.12 Found in IAQ testing, Chemical receptor sensitizer (MCS; TRPA1)	Fermentation, breakdown of alcohols Tsvetanova et al, (2018)	Acetone, butanol, ethanol; 45 hours Tsvetanova et al, (2018)	Cleaning products (general household cleaning, air fresheners, bleach, laundry products), hand sanitizers; Fragranced personal care products (hair and eye care, nail products, body wash/lotions, lip and face products); Home maintenance (Paints, stains, sealants) EPA (n.d.); NCBI, (n.d)	Fragrance, solvent, disinfectant	Chemical receptor sensitizer (TRPA1) Skin, nasal, and eye irritation Potential reproductive effects to fetus NCBI, (n.d.); Komatsu et al., (2012)	Inhalation, ingestion, dermal	Sweet odour; 0.83 ppm NCBI, (n.d.);	Chemical receptor sensitizer (MCS) , Irritant Potential EDC and tetragon NCBI, (n.d.); Komatsu et al., (2012)	Air, soil, water NCBI, (n.d.)	Not specified	See here: Presence on lists: https://comptox.epa.gov/dashboard/chemical/details/DTXSID1021740
1-Propanol C ₃ H ₈ O; 60.10; Cas #: 71-23-8	Found in IAQ testing, Hazardous to health	Fermentation, propane/butane oxidation process Vincent et al., (2009)	Propionaldehyde, acetaldehyde; 1-2 days Vincent et al., (2009)	Cleaning products (carpet/ floor cleaners, heavy duty and surface cleaners); Office supplies (pens/markers, printer ink); Personal care products (hair spray, nail care, perfumes, makeup, shaving cream); Hand sanitizers; Home maintenance (paints, stains, adhesives) EPA, (n.d.); NCBI, (n.d.)	Solvent, fragrance	Persons with pre-existing skin disorders may be more susceptible to the effects of this agent, and persons with impaired pulmonary function, especially those with COPD , the breathing of this agent might cause exacerbation of symptoms due to its irritant properties NCBI, (n.d.)	Inhalation, ingestion, dermal	Ethanol odour; <0.07-100 mg/cu-m NCBI, (n.d.)	Neurotoxin Irritant . NCBI, (n.d)	Air, soil, water NCBI, (n.d.)	Not specified	See here: Presence on lists: https://comptox.epa.gov/dashboard/chemical/details/DTXSID2021739
1-propene, 2-methyl- (Isobutylene) C ₄ H ₈ ; 56.11; Cas #: 115-1-7	Commonly found in non-scent-free office spaces	Incomplete combustion	In the presence of OH radicals, oxidation occurs to form: Formaldehyde, acetone; 7.5 hours Atkinson, (2000); NCBI, (n.d.)	Personal care products (hair care), Incomplete combustion (candles, car exhaust, gasoline; indoor cooking activities) EPA, (n.d.); NCBI, (n.d)	Propellant in consumer products, chemical intermediate, fuel additive	Evidence of carcinogenicity Degeneration of olfactory and respiratory epithelial hyaline NTP, (1998); NCBI. (n.d.)	Inhalation, ingestion, dermal	Not available	Irritant, Neurotoxin NCBI. (n.d.)	Air, soil, water NCBI, (n.d.)	Not specified	See here: Presence on lists: https://comptox.epa.gov/dashboard/dsstoxdb/results?search=DTXSID9020748

1,3-Butadiene C ₄ H ₆ 54.09 #: 106-99-0	Cas	Found in IAQ testing, Hazardous to health and environment	Combustion of fuels ATSDR, (2012)	Acrolein, PM2.5, glyceric acid, d-threitol, erythritol, dithreonic acid, meso-threonic acid, erythrose, malic acid, tartaric acid (H ₂ O ₂ or NO _x); 6 hours ATSDR, (2012); Jaoui, (2014)	Rubber, plastics, auto products, tires, batteries, vehicle exhaust, tobacco smoke, lubricants greases, adhesives, sealants, anti-freeze products, coating products, fillers, plasters, non-metal-surface treatment products, inks, toners, leather treatment products, polishes and waxes, textile treatment products ECHA, (n.d.); Li, (2017); EPA, (n.d.)	Chemical intermediate in production of rubber	Increases incidence of lung, hemato-lymphopoietic, colorectal and prostate cancer Developmental and reproductive effects Irritation of eyes, nasal passages, throat and lungs Boldry et al., (2017); ATSDR, (2012); EPA, (2016)	Inhalation, ingestion, dermal	Gasoline odour: 1.6 ppm EPA, (2016)	Carcinogen (IARC; Group 1) Mutagen (REACH) Possible EDC ATSDR, (2012); EPA, (2016); IARC, (2018)	Air, soil, water NCBI, (n.d.)	1.7 µg/m ³ Health Canada, (2024)	See here: Presence on lists: https://comptox.epa.gov/dashboard/dsstoxxdb/results?search=DXTXSID3020703
1,3-Butadiene, 2-methyl- (Isoprene) C ₅ H ₈ ; 68.12; Cas #: 78-79-5		Commonly found in scent-free and non-scent-free spaces during IAQ testing	Plants, trees, combustion of fuels Bates, (2019)	Oxidation: Formaldehyde Oxidation, presence of OH radicals: Methyl vinyl ketone Bates, (2019)	Rubber products; Laundry products (detergents and scent-boosters); Human breath; Building materials (Cements, adhesives, flooring, electrical insulating tapes and cable wrapping); Auto products (tires); pesticides, cosmetics, tobacco smoke, laboratory chemicals NCBI, (n.d)	Chemical intermediate in production of rubber, fragrance ingredient	Possibly Carcinogenic Endocrine disrupting potential Irritation to mucous membranes, and upper respiratory tract NTP, (1999); NCBI (n.d)	Inhalation, ingestion, dermal	Unknown	Possible Carcinogen (IARC; Group 2B) Possible Mutagen (REACH, NTP, IARC) Possible EDC (NTP) NTP, (1999), IARC, (2018), ECHA, (n.d.	Air, soil, water; can act as climate warming agent, and contribute to higher levels of ozone formation; toxic to aquatic life with long-lasting effects ECHA, (n.d.), Murrell, (2020)	Not specified	See here: Presence on lists: https://comptox.epa.gov/dashboard/dsstoxxdb/results?search=DXTXSID2020761
1,4-Dioxane 88.11 #: 123-91-1	C ₈ H ₁₀ O; Cas	Found in Eco-product testing results, hazardous to health and environment	N/A	Unknown; 33 hours NCBI, (n.d)	Cleaning products (wood, glass, and multipurpose cleaners, laundry products, dish soap, drain products); Personal care products (hair, skin, hand soap); Home maintenance (adhesives, coatings) EPA, (n.d); NCBI, (n.d)	Fragrance, solvent	Carcinogenic to liver, nose, abdominal cavity Nausea, vomiting, eye and nose irritation EPA, (2013); NCBI, (n.d)	Inhalation, ingestion, dermal	Faint, pleasant odour; 24 ppm. EPA, (2016)	Possible carcinogen (Group: 2B); (EPA; probable carcinogen) Neurotoxin Nephrotoxin	Air, soil, water NCBI, (n.d.)	2 µg/m ³ Health Canada, (2024)	See here: Presence on lists: https://comptox.epa.gov/dashboard/dsstoxxdb/results?search=DXTXSID4020533
1,6-Octadien-3-ol, 3,7-dimethyl- (Linalool) 154.25 #: 78-70-6	C ₁₀ H ₁₈ O Cas	Found in IAQ testing. Also found in conventional and eco product testing done by ASEQ-EHAQ, Chemical receptor sensitizer (MCS; TRPA1)	N/A	Acetone, formaldehyde, acetaldehyde; 2.3 hour Calogirou, (1999); NCBI, (n.d)	Cleaning products (air fresheners, bathroom, glass, carpet and floor cleaners, disinfectants, dish soap, hand soap, metal and wood cleaners) laundry products, general cleaning; Personal care products (body and face products related to hygiene, sunscreen, acne treatments, makeup, lotions); Essential oils NCBI, (n.d)	Fragrance and antimicrobial ingredient	Chemical receptor sensitizer (TRPA1) Skin allergen / sensitizer (when reacting with oxygen); allergic contact dermatitis Riera et al, (2009); Sköld, (2022)	Inhalation, ingestion, dermal	Woody aroma; 1 ppm NCBI, (n.d)	TRPA1 Chemical receptor sensitizer (MCS), Skin sensitizer / fragrance allergen Irritant Riera et al, (2009); IFRA, (2004); NCBI, (n.d)	Air, soil, water NCBI, (n.d.)	Not specified	See here: Presence on lists: https://comptox.epa.gov/dashboard/dsstoxxdb/results?search=DXTXSID7025502
2-Butanone (Methyl Ethyl Ketone) C ₄ H ₈ O 72.11 #: 78-93-3	Cas	Commonly found in scent-free and non-scent-free office spaces during IAQ testing. Found in conventional and Eco product testing done by ASEQ-EHAQ	Natural byproduct from fruit	3 days NCBI, (n.d)	Cleaning products (air fresheners, heavy duty and surface cleaners); Office supplies (pens, markers, art crafts, glues); Personal care products (face/body wash, cosmetics, nail polish); Home maintenance (adhesives, wood finishers, paints, primers) NCBI, (n.d)	Solvent, fragrance ingredient	Skin and eye irritation Reproductive effects (fetal developmental abnormalities found) Endocrine disruption to male and female reproductive systems NCBI, (n.d); EPA, (2000); Api et al., (2019)	Inhalation, ingestion, dermal	Acetone odour; 5.4 ppm NCBI, (n.d)	Neurotoxin Reproductive toxin Skin, eye and respiratory irritant NCBI (n.d)	Air, soil, water; persistent in environment / bio accumulative EPA, (2000)	Not specified	See here: Presence on lists: https://comptox.epa.gov/dashboard/dsstoxxdb/results?search=DXTXSID3021516
2-Butoxyethanol 118.17 #: 111-76-2	C ₈ H ₁₈ O; Cas	Found in IAQ testing, Hazardous to health and environment	N/A	In presence of OH radicals and NO: nbutyl formate, 2-hydroxyethyl formate, propanal, 3-hydroxybutyl formate, and organic nitrate; 4.4 days Environment Canada, (2002); EPA, (n.d)	Office supplies (pens, markers), Cleaning products (industrial cleaning, laundry detergent, bathroom cleaners, air fresheners, carpet, floor, glass, surface and hand soaps, furniture cleaners), Home Maintenance (paints, flooring, caulk, sealants), Personal care products (body wash, perfumes, shampoo, hair care, deodorant, cosmetics) NCBI, (n.d); EPA, (n.d)	Solvent, fragrance, degreaser	Fetal abnormalities Female reproductive/ fertility effects Carcinogenic Skin and eye irritation NCBI, (n.d); NTP, (2000); EPA, (n.d)	Inhalation, ingestion, dermal	0.4 ppm	Neurotoxin Nephrotoxin Reproductive toxin Possible carcinogen (ACGIH) NCBI, (n.d)	Air, soil, water NCBI, (n.d.)	82 µg/m ³ Health Canada, (2024)	See here: Presence on lists: https://comptox.epa.gov/dashboard/dsstoxxdb/results?search=DXTXSID1024097

2-Propanol, 2-methyl- (tert-Butyl alcohol) $C_4H_{10}O$ 74.12 #: 75-65-0	Cas	Found in IAQ testing, Hazardous to health and environment	N/A	Unknown; 4 days NCBI, (n.d)	Cleaning products (bathroom cleaners, air fresheners, disinfectants, glass cleaners); Home maintenance (paints, stains, caulks); Personal care products (hair products, perfume, body washes, antiperspirants, cosmetics) NCBI, (n.d); EPA, (n.d)	Fragrance ingredient, degreaser	Reproductive effects (fetotoxicity; stunted growth) Carcinogenic activity (endocrine, urinary) Skin and eye irritation NTP, (1995); EPA, (2021); NCBI, (n.d)	Inhalation, ingestion, dermal	960ppm (AIHA)	Neurotoxin Reproductive toxin Nephrotoxin ACGIH Carcinogen NTP, (n.d)	Air, soil, water NCBI, (n.d.)	Not specified	See here: Presence on lists: https://comptox.epa.gov/dashboard/chemical/details/DTXSID8020204
2,2,4-Trimethyl-1,3-pentanediol diisobutyrate $C_{16}H_{34}O_4$ 286.41 #: 6846-50-0	Cas	Found commonly in scent-free offices	N/A	Unknown NCBI, (n.d)	Cleaning products (floor and carpet cleaners); Home maintenance (paints, stains); Personal care products (lip and nail products) NCBI, (n.d)	Additive, fragrance ingredient, plasticizer NCBI, (n.d)	Endocrine disrupting effects; dysfunction in sex steroid homeostasis Sheikh et al, (2019)	Inhalation, ingestion, dermal	N/A	N/A	Air, soil, water NCBI, (n.d.)	Not specified	See here: Presence on lists: https://comptox.epa.gov/dashboard/chemical/details/DTXSID1027635
3-Carene $C_{10}H_{16}$; 136.24; #: 13466-78-9	Cas	Found in IAQ testing. Also found in conventional product testing done by ASEQ-EHAQ, Hazardous to health and environment	N/A	3-caron aldehyde (oxidation); 3.63 days Calogirou, (1999)	Cleaning products (disinfectants, air fresheners, general, carpet and dish cleaners); Personal care products (perfumes, body wash) NCBI, (n.d); EPA, (n.d)	Fragrance ingredient	Asthma symptoms – bronchial constriction Mucous membranes and skin irritation Contact dermatitis, skin sensitization (NCBI); Lastbom et al., (1998)	Inhalation, ingestion, dermal	Sweet odour	Neurotoxin Skin sensitizer Asthma inducer (narrowing of bronchioles) NCBI, (n.d)	Air, soil, water (very toxic to aquatic life, bioaccumulative) NCBI, (n.d)	Not specified	See here: Presence on lists https://comptox.epa.gov/dashboard/chemical/details/DTXSID4047462
Acetaldehyde C_2H_4O Cas #: 75-07-0	44.05	Found commonly in scent-free and non-scent-free spaces during IAQ testing. Also found in conventional and eco-friendly cleaning products Chemical receptor sensitizer (MCS; TRPA1), Hazardous to health and environment	Byproduct of ethanol combustion and metabolism, and terpenes Calogirou, (1999)	2–24-hours NCBI, (n.d)	Cleaning products (wood, floor, general cleaning) tobacco, heating appliances, and vehicle exhaust, Personal care products (perfume, hair care); Furnishing (office furniture, carpet, pressed wood products); Home maintainance (wall and floor coverings, wall paints, caulking, sealants, insulation) (NCBI, n.d; EPA, n.d)	Binder, additive, fragrance NCBI, (n.d)	Irritation of eyes, skin and respiratory tract Exacerbation of asthma allergies, and COPD symptoms (increases risk of developing these conditions) Carcinogenic activity (nasal tumors) Endocrine disrupting potential (can cross placenta, cause developmental effects in fetus) NCBI, (n.d); EPA, (2000); Radbel et al., (2024); Lv et al., (2023)	Inhalation, ingestion, dermal	Fruity odour; 0.05 ppm EPA, (2000)	Irritant; carcinogen (IARC Group 2B); Teratogen (EPA) TRPA1 receptor (Possible chemical receptor sensitizer; (Bang et al., 2007), Neurotoxin	Air, soil, water (air pollutant), soil, water NCBI, (n.d)	280 µg/m³ (Health Canada, 2024)	See here: Presence on lists https://comptox.epa.gov/dashboard/chemical/details/DTXSID5039224
Acetamide CH_3CONH_2 Cas #: 60-35-5	59.07	Found in IAQ testing, Hazardous to health and environment	Ammonia and Acetic acid breakdown EPA, (n.d)	7.6 days NCBI, (n.d)	Personal care products (hair spray), tobacco smoke, industrial sites, laboratory supplies NCBI, (n.d)	Solvent, stabilizer, plasticizer NCBI, (n.d)	Carcinogenic activity (liver tumors) Developmental toxicity Health Canada, (2009); IARC, (2018)	Inhalation, ingestion, dermal	140 to 160 mg/m³	Carcinogen (IARC: Group 2B)	Air (air pollutant), soil, water NCBI, (n.d.) EPA, (n.d)	Not specified	See here: Presence on lists https://comptox.epa.gov/dashboard/chemical/details/DTXSID7020005
Acetone C_3H_8O ; Cas #: 67-64-1	58.08;	Found commonly in scent-free and non-scent-free spaces during IAQ testing, additionally found in conventional and eco-friendly cleaning products Chemical receptor sensitizer (TRPV1), Hazardous to health and environment	N/A	Acetic and formic acid (exposure to sunlight), can accumulate under poor ventilation; 22 days Lutrell, (2014); NCBI, (n.d)	Cleaning products (general cleaners, air fresheners, glass cleaners, furniture cleaners, laundry detergents); Personal care products (perfumes, hair colour, hair care, makeup, nail polish, hair spray, nail polish); Home Mainteneace (insulation, paint, wood finishers, caulks/ sealants, adhesives), Hand sanitizers NCBI, (n.d); EPA, (n.d)	Solvent, fragrance ingredient, cleaner, binder NCBI, (n.d)	Central Nervous System depressant Skin irritation: dermatitis Chemical receptor sensitizer (TRPV1; contributes to the development of MCS and induces symptoms) Other: Headaches; nausea, bronchial irritation; NCBI, (n.d); Molot et al, (2023)	Inhalation, ingestion, dermal	88 g/m3 (Wolkoff, 2013)	Neurotoxin NCBI, (n.d)	Air, soil, water NCBI, (n.d.)	70,000 µg/m³ (Health Canada, 2024)	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID8021482

Acetic Acid CH ₃ COOH; 60.05 #: 64-19-7	Cas	Found commonly in scent-free and non-scent-free spaces during IAQ testing, and found in conventional cleaning product testing	Fermentation of ethanol Acetone (exposure to sunlight) Virginia Department of Health, (2023); Lutrell, (2014)	22 days NCBI, (n.d)	Vinegar; Cleaning products (vinegar cleaners, descaling agents, natural/green or eco-friendly cleaning products, air fresheners, carpet/floor cleaners, dish soap, bleach, glass cleaner); Home maintenance (adhesives, caulk/sealant, paints); Personal care products (hair care, feminine hygiene, body washes, laundry products); Wooden building materials, Heritage items <i>**Higher concentrations in older buildings</i> NCBI, (n.d); EPA, (n.d); Vergelli et al, (2025)	Makes materials more durable, cleaner, solvent, antimicrobial, fragrance ingredient, ph regulator NCBI, (n.d)	Eye, skin, and mucous membrane irritant. Induces symptoms of bronchitis, and pharyngitis NCBI, (n.d)	Inhalation, ingestion, dermal	Vinegar odour; ~0.48 - 1.0 ppm NCBI, (n.d)	Iritant Dermatoxin - Skin burns Lacrimator (induces flow of tears) NCBI, (n.d)	Air, soil, water NCBI, (n.d.)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID5024394
Acrolein 56.06 #: 107-02-8	C ₃ H ₄ O Cas	Found in IAQ testing, Hazardous to health and environment	Combustion	Very reactive with other chemicals; 14.4 hours Health Canada, (2021)	Tobacco smoke, car exhausts, industrial processes, printer ink, gas stoves, fireplaces, secondary formation by oxidation of other VOCs from products and building materials, candles or incense, pesticides, perfume, small office electronics NCBI, (n.d); EPA, (n.d)	Additive, herbicide NCBI, (n.d)	Skin and eye irritation Asthma, pulmonary issues, bronchitis (induces symptoms; susceptible populations) Nasal cancer Increases risk of alzheimers disease Health Canada (2008); NCBI, (n.d); Jallow et al, (2024)	Inhalation, ingestion, dermal	Pungent odor; <0.1 ppm NCBI, (n.d)	Pulmonary irritant Chemical receptor sensitizer (TRPA1) Carcinogen (IARC: Group 2A) Nasal and respiratory tract irritant NCBI,(n.d); IARC, (n.d); Palmquist et al, (2022)	Air, soil, water; very toxic to animals, aquatic life and environment NCBI, (n.d)	0.44 µg/m3. Health Canada, (n.d)	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/1335561/
Benzaldehyde C ₇ H ₆ O Cas #: 100-52-7	106.1	Found commonly in scent-free and non-scent-free spaces during IAQ testing. Also found in conventional and eco cleaning product testing done by ASEQ-EHAQ	Oxidation of toluene Opgrande et al, (2003)	Benzoic acid via autooxidation 30 hours Sankar et al, (2014); NCBI, (n.d)	Fragrances, Food flavouring in foods and beverages (almond and nut flavours); Cleaning products (detergents, air fresheners, carpet and wood cleaners); Personal care products (creams, hand lotions, deodorants, perfumes, makeup, hair care, sunscreen); Essential oils (Hyacinth, citronella, orris, cinnamon, sassafras, labdanum ("rock rose") and patchouli (type of mint) NCBI, (n.d); EPA, (n.d)	Preservative, solvent, denaturant, flavoring and fragrance ingredient NCBI, (n.d)	Sore throat, redness of skin and skin allergies, coughing; Some evidence of squamous cell papillomas (cancer) and forestomach hyperplasia NTP, (1990); NCBI, (n.d)	Inhalation, ingestion, dermal	Bitter almond odour; 0.042 ppm NCBI, (n.d)	Skin sensitizer NCBI, (n.d)	Air, soil, water NCBI, (n.d.)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID8039241
Benzene C ₆ H ₆ Cas #: 71-43-2	78.11	Found commonly in non-scent-free office spaces during IAQ testing. Additionally found in eco-friendly cleaning products done by ASEQ-EHAQ, Chemical receptor sensitizer (TRPV1) ; Hazardous to health and environment	Byproduct of fossil fuel combustion from sources such as fireplaces, gas furnaces, tobacco smoke, and vehicles NCBI, (n.d), EPA, (n.d)	N/A	Cleaning products (detergents, aerosol products, and air fresheners); Outdoor sources (traffic emissions, tobacco smoke); Building materials (polymeric furnishings, carpets, paints, solvents, plastics and wooden furniture); Personal care products (toothpaste, hair styling and care, sunscreen, spray products) <i>Buildings with high ventilation and air exchange rate may see higher levels if benzene is coming from outside emission sources**</i> NCBI, (n.d.); EPA, (n.d); EPA, (n.d)	Solvent, degreaser	Acute exposure: drowsiness, dizziness, headaches, nausea and vomiting; Long term exposure: leukemia, bone marrow toxicity, immune suppression, COPD and asthma risk, reproductive and developmental toxicity, dermatitis exacerbation and risk of development; Chemical receptor sensitizer (TRPV1; contributes to the development of MCS and induces symptoms) NCBI, (n.d); EPA, (n.d); Kim, (2015); Lv et al, (2023); Molot et al, (2023)	Inhalation, ingestion, dermal; transgenerational via placenta	Sweet odour; 1.5 ppm EPA, (n.d)	Carcinogen (WHO, IARC), Endocrine disrupting chemical, Reproductive/developmental toxicant NCBI, (n.d); WHO, (2019); IARC, (2018)	Air, soil, water; very toxic to animals, aquatic life and environment NCBI, (n.d)	30 µg/m3 (Government of Canada, 2024)	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID3039242

Benzene, 1-chloro-4-(trifluoromethyl)-(Parachlorobenzotrifluoride) $C_6H_4ClF_3$ 180.5 Cas #: 98-56-6	Found in IAQ testing, Hazardous to health and environment	N/A	67 days NCBI, (n.d)	Cleaning products for furniture, paints NCBI, (n.d)	Solvent, cleaner, chemical intermediate NCBI, (n.d)	Carcinogenic activity (thyroid, uterus, liver) Skin sensitization Individuals who suffer from/ skin, liver, kidney, or chronic respiratory disease, will be at an increased risk from exposure NCBI, (n.d); NTP, (2018)	Inhalation, ingestion, dermal	Not determined	Carcinogen (IARC: Group 2B) Mutagen NCBI, (n.d); IARC, (2018)	Air, soil, water; very toxic to aquatic life with long-lasting effects NCBI, (n.d)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dash-board/chemical/details/DTXSID7024821
Butanal / Butyraldehyde C_4H_8O 72.11 #: 123-72-8	Found commonly in non-scent-free office and washroom spaces during IAQ testing	Hydroformylation of propylene Luttrell, (2011)	7 days NCBI, (n.d)	Perfumes, essential oils (lemon balm), food items NCBI, (n.d)	Fragrance and flavoring ingredient NCBI, (n.d)	Skin, respiratory and eye irritation; Respiratory and central nervous system depression NCBI, (n.d)	Inhalation, ingestion, dermal	Pungent odour; 0.0046 ppm NCBI, (n.d)	Neurotoxin NCBI, (n.d)	Air, soil, water NCBI, (n.d.)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dash-board/chemical/details/DTXSID8021513
Butane C_4H_{10} 58.12 #: 106-97-8	Found commonly in scent-free and non-scent-free spaces during IAQ testing. Also found in conventional cleaning product testing done by ASEQ-EHAQ	N/A	N/A	Cleaning products (fabric treatment products, household cleaners for stainless steel, glass, furniture, floor, carpet, and bathrooms, air fresheners, household spot removers, disinfectants (e.g., hand sanitizers, air sanitizing sprays)); laundry products ; Home maintenance products (lubricants and corrosion prevention sprays, paints and coatings (spray paints), adhesives); Personal care products (face and body wash, deodorant, shampoo, conditioner, body and face lotion, sunscreen, makeup/cosmetics) NCBI, (n.d); EPA, (n.d)	Propellant NCBI, (n.d)	Targets central nervous and cardiovascular system NCBI, (n.d)	Inhalation, ingestion, dermal	2.8500 mg/cu NCBI, (n.d)	Neurotoxin NCBI, (n.d)	Air, soil, water; very toxic to aquatic life with long-lasting effects NCBI, (n.d)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dash-board/chemical/details/DTXSID7024665
Butane, 2-methyl- / Isopentane C_5H_{12} 58.12 #: 78-78-4	Found commonly in scent-free and non-scent-free spaces during IAQ testing. Also found in conventional cleaning product testing done by ASEQ-EHAQ	N/A	N/A	Cleaning products (fabric treatment products, household cleaners (e.g., for use on stainless steel, glass, furniture, floor, carpet, bathroom), air fresheners, household spot removers, disinfectants (e.g., hand sanitizers, air sanitizing sprays)); laundry products ; Home maintenance products (lubricants and corrosion prevention sprays, paints and coatings (spray paints), adhesives, insulation); Personal care products (face and body wash, deodorant, shampoo, conditioner, body and face lotion, sunscreen, makeup/cosmetics) NCBI, (n.d); EPA, (n.d)	Propellant NCBI, (n.d)	Targets central nervous and cardiovascular system NCBI, (n.d)	Inhalation, ingestion, dermal	400 ppm NCBI, (n.d)	Neurotoxin NCBI, (n.d)	Air, soil, water; very toxic to aquatic life with long-lasting effects NCBI, (n.d)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dash-board/chemical/details/DTXSID8025468
Carbon Tetrachloride CCl_4 153.8 Cas #: 56-23-5	Found in IAQ testing, and conventional product testing: Hazardous to health and environment	Byproduct from industrial processes to produce chlorofluorocarbons (before phase-out) Carex Canada, (n.d.)	Chlorine atoms (Toxic); 20-100 years (very persistent) Carex Canada, (n.d)	Adhesives, caulk, flame retardants, cleaning products, spot removers, dry cleaning, pesticides, refrigerants and propellants for aerosol cans, as a solvent for oils, fats, lacquers, varnishes, rubber waxes, and resins, and as a grain fumigant; Building materials NCBI, (n.d); EPA, (n.d)	Solvent NCBI, (n.d)	Cancer in hepatic and endocrine systems (EPA); Liver and kidney disease from occupational exposure; Fetal developmental effects NCBI, (n.d); EPA, (2020)	Inhalation, ingestion, dermal	Sweet characteristic odour; odour threshold above 10 ppm NCBI, (n.d)	Carcinogen (IARC: Group 2B); Neurotoxin ; EPA Group B2, probable human carcinogen ; Nephrotoxin NCBI, (n.d); IARC, (2018); EPA, (2020)	Air, soil, water NCBI, (n.d.)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dash-board/chemical/details/DTXSID8020250

Chloroform 119.3 #: 67-66-3	CHCl ₃ Cas	Found in IAQ testing, and conventional product testing; Hazardous to health and environment	May be released to the air as a result of its formation in the chlorination of drinking water, wastewater and swimming pools Suh, (1985)	Phosgene and hydrogen chloride (more toxic than chloroform) 156 days (not broken down by sunlight) NCBI, (n.d)	Cleaning products (general household cleaning, and disinfection products); Laundry products NCBI, (n.d); EPA, (n.d)	Solvent NCBI, (n.d)	Prolonged exposure to chloroform has been associated with liver and kidney damage, and respiratory effects Carcinogenic activity (Liver tumors) Reproductive effects (developmental toxicity) NCBI, (n.d); ATSDR, (2024)	Inhalation, ingestion, dermal	Pleasant odor; 85 ppm EPA, (2016)	Carcinogen (IARC: Group 2B) EPA probable carcinogen (EPA; Group B2) Reproductive toxin, EDC Nephrotoxin Neurotoxin NCBI, (n.d); EPA, (2016); IARC, (2018)	Air, soil, water ; ozone-depleting substance NCBI, (n.d.)	300 µg/m3 (Government of Canada, 2024)	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID1020306
Cyclohexane C ₆ H ₁₂ Cas #: 110-82-7	84.1 Cas	Found in IAQ testing, and conventional and eco product testing; Chemical receptor sensitizer (MCS; TRPV1); Hazardous to health and environment	Combustion processes, hydrogenation of benzene Dada, (2012)	Combustion: Co2, water, and oxygen Dada, (2012)	Cleaning products (floor, carpet); Office supplies (white out); Building materials (paints, sealants, adhesives); Personal care products (body and hair washes, shaving items), car exhausts, gasoline, pesticides NCBI, (n.d); EPA, (n.d)	Cleaner, defoamer, solvent NCBI, (n.d)	Developmental effects (fetal toxicity) Female reproductive effects Eyes, skin, respiratory system irritation; Increased onset of MCS (Induces symptoms) NCBI, (n.d); EPA, (2005); EPA, (n.d); Molot et al, (2023)	Inhalation, ingestion, dermal	Pungent odor; 25ppm epa	Neurotoxin Irritant NCBI, (n.d)	Air, soil, water; very toxic to aquatic life with long-lasting effects NCBI, (n.d)	6000 µg/m3 (Health Canada, 2024)	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID4021923
Cyclopentane 70.1 #: 287-92-3	C ₅ H ₁₀ Cas	Found commonly in scent-free and non-scent-free office spaces during IAQ testing	N/A	Typically stable; 5 hours NCBI, (n.d)	Off gassing from insulation materials, consumer appliances like refrigerators, and other applications where polyurethane or polystyrene foams are used as thermal insulation, and motor fuel (gas). Can also be found in perfumes, fragrances, machine wash detergents, air fresheners, and electric heaters NCBI, (n.d)	Solvent NCBI, (n.d)	Acute: Skin, eye, and respiratory tract irritant; Chronic: CNS depressant, neurotoxic effects NCBI, (n.d)	Inhalation, ingestion, dermal	Petroleum odour; 600 ppm NCBI, (n.d)	Neurotoxin NCBI, (n.d)	Air, soil, water NCBI, (n.d.)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID6024886
Cyclopentane, methyl- C ₅ H ₁₂ 84.2 #: 96-37-7	Cas	Found commonly in scent-free and non-scent-free office spaces during IAQ testing. Also found in scent-free product testing	N/A	2.3 days NCBI, (n.d)	Paints, motor oil, household products, personal care products NCBI, (n.d); EPA, (n.d)	Solvent, impurity NCBI, (n.d)	Respiratory depression; possible neurotoxic effects (CNS depression); possible skin, eye, and respiratory irritation NCBI, (n.d)	Inhalation, ingestion, dermal	Gasoline odour; not determined	Neurotoxin NCBI, (n.d)	Air, soil, water NCBI, (n.d.)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID3025590
Cyclotetrasiloxane, octamethyl- (D4) C ₈ H ₂₀ O ₄ Si ₄ 296.6 #: 556-67-2	Cas	Found commonly in scent-free and non-scent-free spaces during IAQ testing. Also found in conventional cleaning product testing; Hazardous to health and environment	Synthetic	Can degrade into smaller siloxanes; 2 - 5 days Whelan et al, (2004); NCBI, (n.d)	Personal care products (Deodorants, skin creams, cosmetics such as makeup, and hair care products, rinse-off products, lubricants); Cleaning products (wood cleaners), Home maintenance (sealants, adhesives, waxes, polishes and coatings) NCBI, (n.d); EPA, (n.d)	Conditioning agent, emollient, wetting agent NCBI, (n.d)	Potential endocrine and reproductive disruption Marrugo-Padilla, (2024); NCBI, (n.d)	Inhalation, ingestion, dermal	No data	N/A	Air, soil, water; very toxic to aquatic life with long-lasting effects NCBI, (n.d)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID7027205
Cyclopentasiloxane, decamethyl- (D5) C ₁₀ H ₂₀ O ₅ Si ₅ 370.0 #: 541-02-6	Cas	Found commonly in scent-free and non-scent-free spaces during IAQ testing. Also found in conventional cleaning product testing; Hazardous to health and environment	Synthetic	Can degrade into smaller siloxanes; 6.9 days Whelan et al, (2004); NCBI, (n.d)	Cleaning products (air fresheners); Personal care products (hair and skin products, deodorant, lotions, antiperspirants, body sprays, sunscreens, perfume, makeup, shaving products); Commercial dry cleaning fluid, manufacturing of silicone polymers, pest control products; Home maintenance products (lubricants, cleaning products, sealants, adhesives, waxes, polishes, and coatings) NCBI, (n.d); EPA, (n.d)	Conditioning/Emollient; Preservative/Stabilizer; Solvent; Fragrance ingredient NCBI, (n.d)	Possible endocrine disruption; increase in uterine tumors in female rats ; Respiratory and liver effects; Bioaccumulative in human tissues Marrugo-Padilla, (2024); NCBI, (n.d)	Inhalation, ingestion, dermal	No data	N/A	Air, soil, water; bioaccumulative NCBI, (n.d.)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID1027184

Cyclohexasiloxane, dodecamethyl- (D6) 444.9 #: 540-97-6	C ₁₂ H ₃₀ O ₆ Si ₆ Cas	Found in IAQ testing, and conventional product testing; Hazardous to health	Synthetic	Can degrade into smaller siloxanes; 2 - 5 days Whelan et al, (2004); NCBI, (n.d) NCBI, (n.d); EPA, (n.d)	Personal care products (Deodorants, skin creams, cosmetics such as makeup, and hair care products, rinse-off products, facial and body soaps/ moisturizers, shaving products, self-tanners, sunscreen); Cleaning products (Jewelry cleaners), Home maintenance (Surface cleaners) NCBI, (n.d); EPA, (n.d)	Conditioning agent, emollient NCBI, (n.d)	Potential endocrine and reproductive disruption Marrugo-Padilla, (2024); NCBI, (n.d)	Inhalation, ingestion, dermal	No data	N/A	Air, soil, water NCBI, (n.d.)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID6027183
Decanal 156.3 #: 112-31-2	C ₁₀ H ₁₈ O Cas	Found commonly in non-scent-free offices during IAQ testing. Also found in conventional and ECO cleaning product testing; Hazardous to health and environment	Byproduct from ozonation process NCBI, (n.d)	Presence of ozone: acetone, nonanal, 6-MHO, geranyl acetone, and 4-OPA; 4.9 days NCBI, (n.d)	Cleaning products (surface cleaners, air fresheners, bathroom cleaners, floor/carpet cleaners, laundry detergents); Personal care products (body hygiene, moisturizers, hair care) NCBI, (n.d); EPA, (n.d)	Food additive, fragrance component, flavoring agent NCBI, (n.d)	Skin, eye and respiratory irritation NCBI, (n.d)	Inhalation, ingestion, dermal	Citrus odour NCBI, (n.d)	Uremic toxin NCBI, (n.d)	Air, soil, water; very toxic to aquatic life with long-lasting effects NCBI, (n.d)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID4021553
Diethyl Phthalate (DEP) 222.2 #: 84-66-2	C ₁₂ H ₁₄ O ₄ Cas	Found in IAQ testing; Hazardous to health	Synthetic	5.1 days (EPA, n.d)	Cleaning products (air fresheners, laundry products); Personal care products (hand/body washes and lotions, hair care, perfumes); Automotive products (car surface, interior work) NCBI, (n.d), EPA, (n.d)	Fragrance component, conditioning agent, plasticizer, solvent NCBI, (n.d)	Headaches, dizziness, nausea Endocrine disruption (male and female) Developmental toxicity potential Can induce an allergic reaction in the skin NCBI, (n.d); Weaver, (2020)	Inhalation, ingestion, dermal	Odourless	Reproductive toxin Endocrine disruptor (male and female) Skin sensitizer NCBI, (n.d); Weaver, (2020)	Air, soil, water NCBI, (n.d.)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID7021780
D-Limonene 136.2 #: 5989-27-5	C ₁₀ H ₁₆ Cas	Found commonly in scent-free and non-scent-free office spaces during IAQ testing. Also found in conventional and eco cleaning product testing; Hazardous to health and environment	N/A	It is oxidized by ozone to secondary organic aerosols consisting of aldehydes, acids, oxidants and fine and ultra fine particles; 3 days Calogirou, (1999); NCBI (n.d)	Cleaning products (air fresheners, bathroom cleaners, carpet/ floor cleaners, dish soap and dish washing detergent, disinfectants, surface cleaners, heavy duty cleaners, laundry detergents, upholstery cleaners); Personal care products (perfume, soap bars, body wash, toothpaste, deodorant, moisturizers, makeup); Home maintenance products (degreasers, adhesives); Essential oils NCBI, (n.d); EPA, (n.d)	Fragrance, flavouring ingredient NCBI, (n.d)	Skin (can induce allergic reaction), eye and respiratory irritation Kidney damage Carcinogenic activity (tubular cell hyperplasia, adenomas, and adenocarcinomas of the kidney; male rats) NCBI, (n.d); NTP, (1990)	Inhalation, ingestion, dermal	Lemon odour; 0.04 ppm NCBI, (n.d)	Neurotoxin Hepatotoxin Skin sensitizer NCBI, (n.d)	Air, soil, water; very toxic to aquatic life with long-lasting effects NCBI, (n.d)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID1020778
Ethanol 46.1 #: 64-17-5	C ₂ H ₅ OH Cas	Found commonly in scent-free and non-scent-free spaces during IAQ testing. Additionally found in conventional and eco-friendly cleaning products Chemical receptor sensitizer (MCS; TRPA1)	Fermentation processes NCBI, (n.d)	Acetaldehyde, and formaldehyde; 4.5 days Nazaroff, (2024)	Cleaning products (air fresheners, bathroom cleaners, carpet/ floor cleaners, dish soaps, dish detergent, bleach, disinfectants, glass cleaners, heavy duty cleaners, laundry detergents and scent boosters, oven cleaners); Hand sanitizers; Home maintenance products (adhesives, wood finishes, degreasers, insulation, paints); Office supplies (fabric dye, pens, markers, whiteout); Personal care products (face wash, body hygiene, bar soaps, mouth wash, toothpaste, moisturizers, perfumes, hair care, shaving products, makeup); Pesticides NCBI, (n.d), (EPA, n.d)	Antimicrobial, solvent, cleaning agent, flavouring agent, fragrance component NCBI, (n.d)	Dizziness, nausea, respiratory irritation (can cause breathing issues); CNS depression, respiratory depression, loss of coordination; Increased risk of MCS (induces symptoms) NCBI, (n.d); Molot et al, (2023)	Inhalation, ingestion, dermal	Wide range	Neurotoxin, Reproductive toxin, Hepatotoxin NCBI, (n.d)	Air, soil, water NCBI, (n.d.)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID9020584
Ethane, 1,1,1-trichloro 133.4 #: 71-55-6	C ₂ HCl ₃ Cas	Found in IAQ testing, and conventional and eco product testing; Hazardous to health and environment (Present on the Montreal Protocol as ozone depleting substance)	Synthetic	In presence of sunlight: Harmful free radicals (damage ozone layer); 4.6 years ATSDR, (2006)	Cleaning products (air fresheners, carpet/ floor cleaners, laundry products, upholstery and wood cleaners); Home maintenance products (paints, adhesives); Personal care products (hair care); Office supplies (pens, markers, white out, printer ink); Autobody products, pesticides NCBI, (n.d); EPA, (n.d)	Chemical intermediate NCBI, (n.d)	Eye, skin and nose irritation Carcinogenic activity Hepatic effects Individuals with compromised liver or kidneys would be at risk from exposure NCBI, (n.d)	Inhalation, ingestion, dermal	Sweet odour; 120-500 ppm	Probable Carcinogen (IARC Group 2A) IARC, (2018)	Air, soil, water (Ozone depleting substance) Environment and Climate Change Canada, (2024)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID0021381

Ethane, 1,1,2-trichloro-1,2,2-trifluoro- (CFC-113) <chem>CClClF3</chem> Cas #: 76-13-1	187.4	Found in IAQ testing, and conventional and eco product testing; Hazardous to health and environment (Present on the Montreal Protocol as ozone depleting substance)	Synthetic	Chlorine atoms (damages ozone layer); 20 years NCBI, (n.d.)	Cleaning products (air fresheners, floor cleaners, laundry products); fire extinguishers, paints/ sealants, adhesives NCBI, (n.d)	Solvent, lubricant, refrigerant, and fire extinguishing agent NCBI, (n.d)	Persons with existing skin disorders, impaired cardiovascular function and a history of cardiac arrhythmias may be more susceptible to the effects of this agent NCBI, (n.d)	Inhalation, ingestion, dermal	45 ppm. (n.d)	NCBI, Neurotoxin NCBI, (n.d)	Air, soil, water (Ozone depleting substance) Environment and Climate Change Canada, (2024)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID6021377
Ethane, 1,2-dichloro- C2Cl2F4 98.9 #: 107-06-2	Cas	Found in IAQ testing, and eco product testing; Hazardous to health	Synthetic	Chlorinated hydrocarbons 65 days EPA, (n.d)	Resins, adhesives, cosmetics, pharmaceuticals, dry cleaning, tobacco smoke, adhesivesm paints, degreasers EPA, (n.d)	Solvent, fumigant, degreaser NCBI, (n.d)	Possibly Carcinogenic (endometrial, lung; animal; Group 2B) Respiratory irritation May increase the risk of kidney and other cancers , as well as harmful non-cancer renal, nasal, immune system, and reproductive effects. Nursing mothers should not be exposed NCBI, (n.d)	Inhalation, ingestion, dermal	6-10 ppm	Carcinogen (Group 2B: IARC), Neurotoxin, Nephrotoxin IARC, (2018); NCBI, (n.d)	Air, soil, water NCBI, (n.d.)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID6020438
Ethyl Acetate <chem>CC(=O)OCC</chem> Cas #: 141-78-6	88.1	Found commonly in scent-free and non-scent-free spaces during IAQ testing. Additionally found in conventional cleaning product testing	Formed between acetic acid and ethanol Lin et al. (1998)	Hydrolyzes into acetic acid and ethanol Lin et al. (1998)	Personal care products (perfumes/colognes, shaving cream, body hygiene, nail polish, makeup products, lip care); Cleaning products (air fresheners, bathroom cleaners, laundry products), industrial cleaners; Home maintenance (paints, adhesives); scented candles EPA, (n.d)	Solvent in cosmetic products, fragrance in personal care and household products (IFRA), flavouring agent in food, pigment, binder, cleaning agent, anti-adhesive NCBI, (n.d)	Nose and throat irritation NCBI, (n.d)	Inhalation, ingestion, dermal	Fruity odour; 3.9ppm NCBI, (n.d)	Neurotoxin NCBI, (n.d)	Air, soil, water NCBI, (n.d.)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID1022001
Ethylbenzene <chem>CC1=CC=CC=C1C</chem> Cas #: 100-41-4	106.2	Found in IAQ testing; Chemical receptor sensitizer (MCS; TRPV1); Hazardous to health, and environment	Combustion NCBI, (n.d)	8 days EPA, (n.d)	Cleaning products (glass cleaners, drain products, general household cleaning, surface cleaners); Home maintenance (paints, adhesives, stains, caulks); Personal care products (deodorants, hair care, body hygiene); Vehicles (autobody work, engine work); Construction materials; Furniture EPA, (n.d)	Solvent, additive, perfuming NCBI, (n.d)	Exposure can lead to nervous system disturbances, toxic hepatitis and upper respiratory tract complaints; exacerbation of COPD, MCS, and asthma symptoms Irritation of the eyes, and neurological effects such as dizziness; chronic inhalation has shown effects on blood, liver and kidneys, and developmental effects for fetus Carcinogenic activity NCBI, (n.d); Poelgeest et al, (2025)	Inhalation, ingestion, dermal	Gasoline odour; 2.3 ppm NCBI, (n.d)	Carcinogen (Group 2B; IARC); Neurotoxin. IARC, (2018); NCBI, (n.d)	Air, soil, water; very toxic to aquatic life with long-lasting effects NCBI, (n.d)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID3020596
Ethylene glycol <chem>C1OCCO1</chem> 62.1 Cas #: 107-21-1		Found in IAQ testing; Hazardous to health	Synthetic	Diethylene glycol, triethylene glycol, and tetraethylene glycol; 2 days NCBI, (n.d)	Office supplies (pens, markers, printers), Cleaning products (carpet, floor, upholstery, bleach, glass, laundry), computers, furniture, Home maintenance (paints/stains, Personal care products (fragrances, hair care) EPA, (n.d)	Solvent, fragrance, plasticizer NCBI, (n.d)	Potential reproductive effects, fetotoxicity Respiratory tract irritation Infants may be more susceptible to effects Pulmonary and kidney effects at high doses NCBI , (n.d)	Inhalation, ingestion, dermal	-	Neurotoxin, Nephrotoxin NCBI, (n.d)	Air, soil, water NCBI, (n.d.)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID8020597

Formaldehyde <chem>CH2O</chem> 30.0 Cas #: 50-00-0		Found commonly in scent-free and non-scent-free spaces during IAQ testing; Chemical receptor sensitizer (MCS; TRPV1); Hazardous to health and environment	Human bodily processes, combustion and industrial processes NCBI, (n.d)	Formic acid and carbon dioxide; 8 Days NCBI, (n.d); EPA, (n.d)	Cleaning products (air fresheners, bathroom cleaners, carpet and floor cleaners, general household cleaning products, laundry and fabric products, wood cleaners, drain products); Home maintenance (paints/stains, adhesives, wood finishes, renovations); Personal care products (body hygiene, hair care, nail products, makeup); Construction and building materials (concrete, insulation, flooring); Furniture, industrial cleaning products; and the use of un-vented, fuel-burning appliances, like gas stoves or kerosene space heaters, smoking <i>Note: concentrations higher in newly built/ renovated spaces</i> EPA, (n.d)	Biocide, preservative, additive, adhesive, denaturant NCBI, (n.d)	Watery eyes, burning sensations in the eyes and throat Sensitization of TRPV1 receptors and skin Difficulty in breathing, asthma attacks, poorer control of asthma symptoms Cancer of the nasopharynx and onset of leukemia Populations at risk include asthmatics and people with dermal conditions, and MCS Lam et al, (2021); NCBI, (n.d); Molot et al, (2023)	Inhalation, ingestion, dermal	Pungent gas odour; 110 g/m3 NCBI, (n.d)	Neurotoxin, skin sensitizer, asthma-inducer, Known Human carcinogen (IARC; Class 1)	Air, soil, water; very toxic to aquatic life with long-lasting effects NCBI, (n.d)	50 µg/m³ Health Canada, (2024)	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID7020637
Heptane <chem>C7H16</chem> Cas #: 142-82-5	100.2	Found commonly in scent-free and non-scent-free spaces during IAQ testing; Chemical receptor sensitizer (MCS; TRPV1); Hazardous to health and environment	Incomplete combustion NCBI, (n.d)	Co, co2, water; 3 days NCBI, (n.d)	2- Gasoline, petroleum; Home maintenance (PVC flooring, adhesives, coating sprays, wood finishers, glues); Cosmetics (hair dye, perfumes/colognes, hair conditioners); Office supplies (glue sticks, glitter glues, fabric glues, craft glue, spray mounts, stencil sprays, and other adhesives, white-out); Lighters, lighter fluids, and other indoor fuels; Laundry products (fabric protectants); Construction materials (flooring, tile, sinks, bathtubs, mirrors, wall materials/drywall, wall-to-wall carpets, insulation) <i>Note: concentrations higher in newly built/ renovated spaces</i> NCBI, (n.d)	Solvent, degreaser, lubricant NCBI, (n.d)	Affects the central nervous system and may cause lightheadedness, stupor, vertigo, incoordination, loss of appetite, nausea, and unconsciousness; Chemical receptor sensitizer (TRPV1; contributes to the development of MCS and induces symptoms) NCBI, (n.d); Molot et al, (2023)	Inhalation, ingestion, dermal	Petroleum odour; 230ppm NCBI, (n.d)	Neurotoxin NCBI, (n.d)	Air, soil, water; very toxic to aquatic life with long-lasting effects NCBI, (n.d)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID6024127
Hexane, 2-methyl- <chem>C7H16</chem> Cas #: 591-76-4	100.2	Found commonly in scent-free and non-scent-free spaces during IAQ testing; Hazardous to health and environment	Incomplete combustion NCBI, (n.d)	CO, CO2, water NCBI, (n.d)	Vehicle (Lubricants, adhesives, sealants, oils, paints, coatings; Power steering fluids, transmission fluids, brake fluids, fuel injector cleaners, gas treatments, or leak stoppers) NCBI, (n.d)	Solvent NCBI, (n.d)	May cause pulmonary damage, central nervous system depression, and cardiac effects; Headache, nausea, vomiting, dizziness NCBI, (n.d)	Inhalation, ingestion, dermal	0.4 ppm	Neurotoxin NCBI, (n.d)	Air, soil, water; very toxic to aquatic life with long-lasting effects NCBI, (n.d)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID5052256
Hexane, 3-methyl- <chem>C7H16</chem> Cas #: 589-34-4	100.2	Found commonly in scent-free and non-scent-free spaces during IAQ testing; Hazardous to health and environment	n/a	CO, CO2, water NCBI, (n.d)	Vehicle (Lubricants, adhesives, sealants, oils, paints, coatings; Power steering fluids, transmission fluids, brake fluids, fuel injector cleaners, gas treatments, or leak stoppers) NCBI, (n.d)	Solvent NCBI, (n.d)	May cause pulmonary damage, central nervous system depression, and cardiac effects NCBI, (n.d)	Inhalation, ingestion, dermal	n/a	Neurotoxin NCBI, (n.d)	Air, soil, water; very toxic to aquatic life with long-lasting effects NCBI, (n.d)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID3044334
Hexanal <chem>C6H12O</chem> 100.2 Cas #: 66-25-1		Found commonly in scent-free and non-scent-free spaces during IAQ testing, additionally found in conventional and eco-friendly cleaning products	Photooxidation of hydrocarbons, ethers, and alcohols Tadic et al, (2001)	Photooxidation: CO, vinylalcohol and ethanal; 4 days Tadic et al, (2001)	Cleaning products (air fresheners, industrial cleaners); Personal care products (nail care); Construction materials (adhesives, linoleum floor coverings, floor lacquers, wooden-pressed products, wall and floor coverings and wall paints) EPA, (n.d); NCBI, (n.d)	Fragrance, and flavouring ingredient NCBI, (n.d)	Mild irritation (discomfort in the eyes and nose, solvent smell, and headache); Chronic exposure can lead to renal damage, chronic kidney disease and cardiovascular disease NCBI, (n.d)	Inhalation, ingestion, dermal	Fruity odour; 0.3 ppb NCBI, (n.d)	Uremic toxin NCBI, (n.d)	Air, soil, water NCBI, (n.d.)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/env-fate-transport/DTXSID2021604

Isopropyl Alcohol C ₃ H ₈ O 60.1 Cas #: 67-63-0		Found commonly in scent-free and non-scent-free spaces during IAQ testing. Additionally found in conventional and eco-friendly cleaning products	Synthetic	Oxidation: Acetone; 7-8 days NCBI, (n.d)	Cleaning products (air fresheners, bathroom cleaners, carpet and floor cleaners, dish soap, general household cleaning (bleach, glass, oven), laundry products); Personal care products (perfumes, body hygiene, hand sanitizer, deodorant, facial hygiene and moisturizers, hair colouring and styling/hygiene, nail care, makeup); Home maintenance (adhesives, paint, stains, strippers); Pesticides; Pharmaceuticals EPA, (n.d); NCBI, (n.d)	Solvent, fragrance and flavouring agent, cleaning agent, denaturant, antiseptic NCBI, (n.d)	Sore throat, cough, headache, dizziness, drowsiness, airway irritation Persons with pre existing skin disorders may be more susceptible to the effects of this agent, and in persons with impaired pulmonary function, especially those with obstructive airway diseases, the breathing of isopropyl alcohol might cause exacerbation of symptoms due to its irritant properties NCBI, (n.d)	Inhalation, ingestion, dermal	Rubbing alcohol odour; wide range NCBI, (n.d)	Neurotoxin NCBI, (n.d)	Air, soil, water NCBI, (n.d.)	7,000 µg/m³ (long term) Health Canada, (2024)	See here: Presence on lists - https://comptox.epa.gov/dash-board/chemical/details/DTXSID7020762
Methylene Chloride CH ₂ Cl ₂ Cas #: 75-09-2	84.9	Found in IAQ testing; Hazardous to health	Chlorination of methane NCBI, (n.d)	14 days EPA, (n.d)	Personal care products (hair care, shampoo, conditioner, perfumes); Office supplies (glues); Cleaning products (laundry, disinfectants, fabric treatments); Furniture, Home Maintenance (caulking, paints, wood finishings) NCBI, (n.d)	Solvent NCBI, (n.d)	Increased risk of developing cancer, adverse effects on the heart, central nervous system, reproductive system and liver, skin and eye irritation EPA, (2016)	Inhalation, ingestion, dermal	250 ppm NCBI, (n.d)	Carcinogen (EPA; Group C); Neurotoxin, Nephrotoxin, Reproductive toxin NCBI, (n.d)	Air, soil, water NCBI, (n.d.)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dash-board/chemical/details/DTXSID0021541
m-Xylene + p-Xylene 106.2 #: 179601-23-1	C ₈ H ₁₀ Cas	Found commonly in scent-free and non-scent-free spaces during IAQ testing, and in conventional cleaning product testing; Hazardous to health and environment; TRPV1 receptor sensitizer (MCS)	Synthetic or combustion NCBI, (n.d)	Methylbenzaldehydes, methylbenzyl alcohols, and carbon dioxide; 10 days NCBI, (n.d)	Cleaning products (fragrances, air fresheners, carpet and floor cleaners, drain cleaners); Home maintenance (paints and coatings); Office supplies (printers and copiers); Vehicle emissions (engine maintenance) EPA, (n.d); NCBI, (n.d)	Solvent NCBI, (n.d)	Increased risk of developing asthma and COPD (exacerbation of symptoms) ; Reported respiratory, cardiovascular, CNS, liver, and kidney effects from mixed xylenes; Shown to produce developmental effects , such as an increased incidence of disrupted fetal development Poelgeest et al, (2025); NCBI, (n.d); Lv et al, (2023)	Inhalation, ingestion, dermal	78 g/m3 NCBI, (n.d)	Neurotoxin, Reproductive toxin NCBI, (n.d)	Air (air pollutant), soil, water (water pollutant) NCBI, (n.d.) EPA, (n.d)	7,200 µg/m3 (long term; Health Canada, 2024)	See here: Presence on lists - https://comptox.epa.gov/dash-board/chemical/env-fate-transport/DTXSID6026298
Naphthalene 127.2 Cas #: 91-20-3	C ₁₀ H ₈ Cas	Found in IAQ testing; Hazardous to health	Incomplete combustion from biomass NCBI, (n.d)	3-8 hours NCBI, (n.d)	Office supplies (glues, adhesives), Cleaning products (air fresheners, drain products); Building materials (flooring, walls, carpets), Home Maintenance (paints, primers), Cooking activities, fireplaces, pesticides EPA, (n.d); NCBI, (n.d)	Fragrance component, degreaser, solvent NCBI, (n.d)	Respiratory irritation Olfactory tumors (cancer) NCBI, (n.d)	Inhalation, ingestion, dermal	Mothball smell; 0.08 ppm NCBI, (n.d)	IARC Possible carcinogen (Group 2B) IARC, (2018)	Air (EPA air pollutant), soil, water; very toxic to aquatic life with long-lasting effects NCBI, (n.d); EPA, (n.d)	10 µg/m3 (24 hrs) Health Canada, (2024)	See here: Presence on lists - https://comptox.epa.gov/dash-board/chemical/details/DTXSID8020913
n-Hexane 86.2 #: 110-54-3	C ₆ H ₁₄ Cas	Found commonly in scent-free and non-scent-free spaces during IAQ testing. Additionally found in conventional cleaning product testing; Hazardous to health and environment	Incomplete combustion NCBI, (n.d)	9 days EPA, (n.d)	Cleaning products (general cleaning, dishwasher soaps, air fresheners, industrial cleaners); Home maintenance (adhesives, paints/stains, concrete, caulks, sealants, insulation materials); Personal care products (makeup, hair care and hygiene); Vehicle emissions EPA, (n.d); NCBI, (n.d)	Additive, solvent, fragrance component, cleaner NCBI, (n.d)	Eye, nose, throat and respiratory irritation ; Potential endocrine-disrupting chemical; reproductive effects on fertility and fetal development ; May affect the central and peripheral nervous system by degeneration and damage to the nerve axons NCBI , (n.d); Ruiz-Garcia et al, (2020)	Inhalation, ingestion, dermal	Gasoline odour; 65 to 248 ppm NCBI, (n.d)	Neurotoxin NCBI, (n.d)	Air (EPA air pollutant), soil, water; very toxic to aquatic life with long-lasting effects NCBI, (n.d); EPA, (n.d)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dash-board/chemical/env-fate-transport/DTXSID0021917

N,N-Dimethylformamide C ₃ H ₇ NO 73.1 Cas #: 68-12-2	Found in IAQ testing; Hazardous to health	Synthetic	In the presence of nitrogen oxides; can degrade to form carcinogenic nitrosamines, ammonia, carbon monoxide, carbon dioxide, amines, and formaldehyde ; 8 days (n.d) NCBI,	Home maintenance (caulking); Furniture; Cosmetics, Printing ink NCBI, (n.d)	Binder, solvent NCBI, (n.d)	Testicular, lung, bladder tumors (cancer) Liver effects Female endocrine disruption, and fetal development disruption Health Canada; (n.d); NCBI, (n.d)	Inhalation, ingestion, dermal	n/a	IARC probable carcinogen (Group 2A) IARC, (2018)	Air, soil, water NCBI, (n.d.)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dash-board/chemical/details/DTXSID6020515
Nonanal C ₉ H ₁₈ O Cas #: 124-19-6	142.2 Found commonly in scent-free and non-scent-free spaces during IAQ testing; Additionally found in conventional cleaning product testing	Synthetic	4 days EPA, (n.d)	Cleaning products (air fresheners, essential oil diffusers, bathroom cleaners, laundry products, wood cleaners); Essential oils; Personal care products (sunscreens) EPA, (n.d)	Flavoring / fragrance substance in food and consumer products NCBI, (n.d)	Potential respiratory and skin sensitization effects; respiratory irritation NCBI, (n.d)	Inhalation, ingestion, dermal	Orange-rose odor; 0.14 ppb NCBI, (n.d)	Uremic toxin NCBI, (n.d)	Air, soil, water NCBI, (n.d.)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dash-board/chemical/details/DTXSID9021639
Octanal C ₈ H ₁₆ O Cas #: 124-13-0	128.2 Found commonly in scent-free and non-scent-free spaces during IAQ testing; Additionally found in conventional cleaning product testing	Synthetic	Octanoic acid; 4.9 days NCBI, (n.d)	Cleaning products (carpet, wood and floor cleaners, air fresheners, bathroom and general household cleaners); Personal care products (body and hair hygiene) EPA , (n.d)	Flavoring / fragrance substance in food and consumer products NCBI, (n.d)	Enhances the inflammatory response in the respiratory system by increasing the expression and release of cytokines and chemokines; respiratory and skin irritation NCBI, (n.d)	Inhalation, ingestion, dermal	Strong fruity odor; 0.17 ppb NCBI, (n.d)	Skin and eye irritant NCBI, (n.d)	Air, soil, water; very toxic to aquatic life with long-lasting effects NCBI, (n.d)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dash-board/chemical/details/DTXSID3021643
o-Xylene 106.2 #: 95-47-6	C ₈ H ₁₀ Cas Found in IAQ testing; Hazardous to health and environment	Incomplete combustion NCBI, (n.d)	6 days NCBI, (n.d)	Cleaning products (carpet and floor cleaners, drain products); Home maintenance (Paint and stain products); Vehicles (transmissions, body work, engine work); Construction materials (wood-based materials, ceiling tile, and insulation materials, coating, adhesive, caulking, wood stains, and foam sealant); Smoking EPA, (n.d)	Solvent NCBI, (n.d)	Increased risk of developing asthma and COPD (exacerbation of symptoms); Reported respiratory, cardiovascular, CNS, liver, and kidney effects from mixed xylenes; Shown to produce developmental effects , such as an increased incidence of disrupted fetal development Poelgeest et al., (2025); NCBI, (n.d); Lv et al., (2023)	Inhalation, ingestion, dermal	78 g/m3 NCBI, (n.d)	Neurotoxin, Reproductive toxin NCBI, (n.d)	Air (air pollutant), soil, water (water pollutant) NCBI, (n.d.) EPA, (n.d)	150 µ g/m3 (24 hours) Health Canada, (2024)	See here: Presence on lists - https://comptox.epa.gov/dash-board/chemical/details/DTXSID3021807
p-Cymene C ₁₀ H ₁₄ 132.2 #: 99-87-6	Cas Found commonly in scent-free spaces during IAQ testing; Additionally found in conventional cleaning product testing	Oxidation of monoterpenes Caligirou, (1999)	Terpenes can readily react with ozone to generate secondary pollutants such as formaldehyde and acetaldehyde, glycol ethers, free radicals (such as hydroperoxy and alkyl peroxy radicals), and ultrafine particles; 1 day Wolkoff, (2020); Caligirou, (1999)	Cleaning products (air fresheners, bathroom cleaners, dishwashing products, industrial carpet and floor cleaners, candles); Personal care products (perfumes/ colognes); Vehicle air fresheners; Essential oils EPA, (n.d)	Fragrance, flavouring NCBI , (n.d)	Skin respiratory, and eye irritation Dizziness, nausea NCBI, (n.d)	Inhalation, ingestion, dermal	n/a	Neurotoxin; Skin and eye irritant NCBI, (n.d)	Air, soil, water; very toxic to aquatic life with long-lasting effects NCBI, (n.d)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dash-board/dsstoxdb/results?search=DTXSID3026645
Pentanal C ₅ H ₁₀ O 86.1 Cas #: 110-62-3	Found commonly in scent-free spaces during IAQ testing; Additionally found in eco-friendly cleaning product testing	Synthetic	Valeric acid via oxidation; 4 days NCBI, (n.d)	Fragranced products, perfume NCBI, (n.d)	Fragrance, and flavouring ingredient NCBI, (n.d)	Skin and eye irritation Sore throat NCBI, (n.d)	Inhalation, ingestion, dermal	2.7 ppm NCBI, (n.d)	Eye and skin irritant; Skin sensitizer NCBI, (n.d)	Air, soil, water NCBI, (n.d.)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dash-board/chemical/env-fate-transport/DTXSID7021653

Pentane 72.2 #: 109-66-0	C ₅ H ₁₂ Cas	Found commonly in scent-free and non-scent-free spaces during IAQ testing; Additionally found in conventional and eco-friendly cleaning product testing; Hazardous to health and environment	Combustion Pubchem, (2025)	Stable in indoor air, does not breakdown until removed by ventilation; 5 days Pubchem, (2025); EPA, (n.d)	Construction materials (flooring, tile, sinks, bathtubs, mirrors, wall materials/drywall, wall-to-wall carpets, insulation); Gasoline, motor fuel; Personal care products (antiperspirant/deodorants, body spray, conditioner, hair spray, shampoo, styling mousse/foam); Cleaning products (carpet cleaners, general cleaning products); Air conditioning and refrigeration systems Pubchem, (2025); EPA, (n.d)	Refrigerant, solvent, propellant, blowing agent Pubchem, (2025)	Targets central nervous system and respiratory system; Persons with skin disorders may be more susceptible to the effects of this agent, and persons with impaired pulmonary function, especially those with obstructive airway diseases , the breathing of pentane might cause exacerbation of symptoms due to its irritant properties Pubchem, (2025)	Inhalation, ingestion, dermal	Gasoline odour; 119-900ppm NJ Health, (2009)	Neurotoxin Pubchem, (2025)	Air, soil, water; very toxic to aquatic life with long-lasting effects; advised to keep out of environment Pubchem, (2025)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/env-fate-transport/DTXSID2025846
Pentane, 2-methyl- 86.2 #: 107-83-5	C ₅ H ₁₂ Cas	Found commonly in scent-free washrooms during IAQ testing; Additionally found in conventional and eco-friendly cleaning product testing; Hazardous to health and environment	Cracking processes Pubchem, (2026)	Stable in indoor air, does not breakdown until removed by ventilation; 3 days Pubchem, (2026); EPA, (n.d)	Office supplies (glue sticks, glitter glues, fabric glues, craft glue, spray mounts, stencil sprays); Construction materials (flooring, tile, sinks, bathtubs, mirrors, wall materials/drywall, wall-to-wall carpets, insulation); Home Maintenance (adhesives, paints); Cleaning products (general cleaning); Gasoline Pubchem, (2026); EPA, (n.d)	Solvent Pubchem, (2026)	Affects the nervous system; causes degeneration of the peripheral nervous system (and eventually the central nervous system), starting with damage to the nerve axons. Exposure may also damage the lungs and reproductive system Pubchem, (2026)	Inhalation, ingestion, dermal	Gasoline odour EPA, (n.d)	Neurotoxin ACGIH Carcinogen (animal) Pubchem, (2026)	Air, soil, water; very toxic to aquatic life with long-lasting effects; advised to keep out of environment Pubchem, (2026)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dashboard/dsstdxb/results?search=DTXSID4029143
Pentane, 3-methyl- 86.2 Cas #: 96-14-0	C ₅ H ₁₂ Cas	Found commonly in scent-free and non-scent-free spaces during IAQ testing; Hazardous to health and environment	Cracking processes Pubchem, (2026)	Stable in indoor air, does not breakdown until removed by ventilation; 5 days Pubchem, (2026); EPA, (n.d)	Office supplies (glue sticks, glitter glues, fabric glues, craft glue, spray mounts, stencil sprays); Construction materials (flooring, tile, sinks, bathtubs, mirrors, wall materials/drywall, wall-to-wall carpets, insulation); Home maintenance (adhesives, paints); Cleaning products (general cleaning); Gasoline Pubchem, (2026); EPA, (n.d)	Solvent Pubchem, (2026)	Affects the nervous system; causes degeneration of the peripheral nervous system (and eventually the central nervous system), starting with damage to the nerve axons. Exposure to may also damage the lungs and reproductive system Pubchem, (2026)	Inhalation, ingestion, dermal	Gasoline odour EPA, (n.d)	Neurotoxin ACGIH Carcinogen (animal) Pubchem, (2026)	Air, soil, water; very toxic to aquatic life with long-lasting effects; advised to keep out of environment Pubchem, (2025)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID8052647
Phenol C ₆ H ₆ O Cas #: 108-95-2	94.1	Found in IAQ testing, and in eco-friendly cleaning product testing; Hazardous to health and environment	Industrial (pulp/paper) and biomass byproduct Pubchem, (2026)	Benzoquinone (toxic); 1-2 days EPA, (2016)	Cleaning products (bathroom cleaners, general cleaning, laundry products); Furniture, Home maintenance (wall coverings, paints, adhesives); Personal care products (body wash, mouth wash, face care, perfumes, hair care, shaving cream, moisturizing products, baby products such as cream, makeup); Phenol-containing medicinal products (including mouthwashes, toothache drops, throat lozenges, analgesic rubs, and antiseptic lotions); Smoking tobacco; Vehicle emissions; Building insulation; Industrial products and activities EPA, (n.d); Pubchem, (2026)	Antimicrobial, deodorizer, fragrance, preservative Pubchem, (2026)	Respiratory, skin, eye irritation; Long term exposure – liver, kidney, blood effects, cardiovascular disease (humans; industry) Reproductive effects found in animals Pubchem, (2026); EPA, (2016)	Inhalation, ingestion, dermal	Sweet odour; 0.04 ppm Pubchem, (2026)	Neurotoxin, Nephrotoxin Pubchem, (2026)	Air (air pollutant), soil, water; very toxic to aquatic life with long-lasting effects Pubchem, (2026); EPA, (n.d)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID5021124
Propane,1,1,1,3,3-pentofluoro- C ₃ H ₂ F ₆ Cas #: 460-73-1	134.1	Found commonly in scent-free and non-scent-free spaces during IAQ testing	Synthetic Pubchem, (2026)	7 years Pubchem, (2026)	Refrigerants, spray foam installation; Personal care products (body hygiene, moisturizing, face washes, makeup) Pubchem, (2026)	Blowing agent Pubchem, (2026)	None found	Inhalation	n/a	Neurotoxin Pubchem, (2026)	Air, soil, water Pubchem, (2026)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID6052110

Propylene 42.1 #: 115-07-1	C ₃ H ₆ Cas	Found commonly in scent-free and non-scent-free spaces during IAQ testing; Additionally found in conventional cleaning product testing	Fossil fuels, can be synthetic Pubchem, (2026)	Ethylene; 4 days Pubchem, (2026)	Personal care products (makeup, hair styling and care, facial cleansers and moisturizers, body hygiene); Home maintenance (Paint/stains); Printer toner ; Vehicle emissions ; Smoking, and indoor burning sources (kerosene space heaters using a wick or injector for flame production, cooking) Pubchem, (2026), EPA, (n.d); Margott, (2018)	Base resin, chemical intermediate Pubchem, (2026)	Possible respiratory irritation Pubchem, (2026)	Inhalation, ingestion, dermal	Petroleum odour; 23 ppm Pubchem, (2026)	n/a	Air, soil, water Pubchem, (2026)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/env-fate-transport/DTXSID5021205
Propylene Glycol 76.1 #: 57-55-6	C ₃ H ₈ O ₂ Cas	Found in IAQ testing, and in conventional cleaning product testing; Hazardous to health	Synthetic	Through heating; acetaldehyde, formaldehyde ; 4 days Azimi et al, (2021); EPA, (n.d)	Cleaning products (air fresheners, general cleaning, furniture cleaners, carpet/floor cleaners, laundry products, bathroom cleaners, drain products, disinfectants, hand cleaner); Personal care products (body hygiene, shampoo, deodorant, perfumes/colognes, facial cleansing and moisturizing, hair colouring, makeup, dental products, baby products, sunscreen, hair styling and care products); Home maintenance (paint/stains, adhesives, wood finish, sealants); Pharmaceuticals EPA, (n.d); Pubchem, (2026)	Additive, antimicrobial, solvent, cleaning agent, fragrance component Pubchem, (2026)	Respiratory and skin irritation (can induce allergies in skin) Pubchem, (2026)	Inhalation, ingestion, dermal	Odourless Pubchem, (2026)	Neurotoxin, skin sensitizer Pubchem, (2026)	Air, soil, water Pubchem, (2026)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/env-fate-transport/DTXSID0021206
Styrene 104.1 #: 100-42-5	C ₈ H ₈ Cas	Found in IAQ testing, and in conventional cleaning product testing; Hazardous to health and environment ; TRPV1 receptor sensitizer (MCS)	Petroleum, natural gas, ethylbenzene Pubchem, (2026)	1-2 days; EPA, (2020)	Cleaning products (general cleaning products, dish soap, air fresheners, laundry products); Home maintenance (paints/stains, surface sealers, strippers); Carpet backings, Wall coverings ; Printers ; Personal care products (lip care, eye makeup, lipstick, sunscreen) EPA, (n.d); Pubchem, (2026)	Binder, fragrance ingredient Pubchem, (2026)	Sensory irritation (low odour threshold) Cancer – increased risk of leukemia and lymphoma in humans Reproductive effects Exacerbation of asthma, MCS, and COPD symptoms ATSDR, (1992); EPA, (2020); Pubchem, (2026); Molot et al, (2023)	Inhalation, ingestion, dermal	Sweet smell; 0.32 ppm EPA, (2020)	Neurotoxin, IARC Group 2A: probable human carcinogen Pubchem, (2026); IARC, (2018)	Air (air pollutant), soil, water EPA, (n.d)	850 µg/m ³ (Long term) Health Canada, (n.d)	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID2021284
Tetrachloroethylene C ₂ Cl ₄ Cas #: 127-18-4	165.8	Found in IAQ testing; Hazardous to health and environment	Hydrocarbons and chlorine reactions PubChem, (2026)	Phosgene (toxic); 100 days ATSDR, (2020)	Office supplies (pens, markers); Cleaning products (general cleaning, glass); Home Maintenance (paints/stains); Personal care products (hair care); Dry cleaning PubChem, (2026); EPA, (n.d)	Solvent, degreaser PubChem, (2026)	Increased risk of cancer including leukemia Reproductive effects ; Tetrachloroethylene is a central nervous system depressant. It is also known to cause liver and kidney damage Irritation ; eyes, nose, throat PubChem, (2026); EPA, (2016)	Inhalation, ingestion, dermal	Sweet odour; 1 ppm EPA, (2016)	IARC Group 2A Carcinogen ; Reproductive toxin ; Neurotoxin, Nephrotoxin PubChem, (2026)	Air (air pollutant), soil, water (Very toxic to aquatic life with long-lasting effects) PubChem, (2026); EPA, (n.d)	40 µg/m ³ (Long term) Health Canada, (n.d)	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID2021319
Toluene C ₇ H ₈ 92.1 Cas #: 108-88-3		Found commonly in scent-free and non-scent-free spaces during IAQ testing. Additionally found in conventional cleaning product testing; Hazardous to health and environment ; TRPV1 receptor sensitizer (MCS)	Incomplete combustion PubChem, (2026)	Benzaldehyde; 13 hours Van Durme et al, (2007)	Cleaning products (air fresheners, candles with a fragrance, general household cleaning products, laundry detergent, products that remove stains or discoloration of fabric used in laundry, industrial cleaning supplies, shoe cleaning products); Home maintenance (paints/stains, adhesives, lubricants, surface sealers, wood finishes, insulation materials); Personal care products (perfumes/colognes, body wash, hair colour, hair styling and care, makeup); Office supplies (toners, glue, printers); Vehicle emissions (gasoline); Combustion sources (smoking, burning indoors) PubChem, (2026); EPA, (n.d)	Solvent, chemical intermediate PubChem, (2026)	Nervous system impacts such as dizziness, sensory confusion, tremors, hearing loss, and slurred speech. Negative reproductive effects (spontaneous abortion, reduced fertility, premature delivery, and menstrual disturbance) Increased onset of asthma MCS, and COPD (exacerbation of symptoms); Lv et al, (2022); Health Canada, (n.d); Molot et al, (2023); PubChem, (2026)	Inhalation, ingestion, dermal	376 mg/m ³ (sensory irritation) Nielsen et al, (2007)	Neurotoxin, Nephrotoxin, Reproductive toxin PubChem, (2026)	Air (air pollutant), soil, water EPA, (n.d)	2.3 mg/m ³ (Long term; Health Canada, 2011)	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID7021360

Trichloroethylene C ₂ HCl ₃ 139.3 #: 79-01-6	Cas	Found in IAQ testing; Hazardous to health and environment	Synthetic	Phosgene, (toxic); 7 days PubChem, (2026)	Office supplies (white out, glues); Cleaning products (household cleaners, carpet cleaners, laundry products, spot removers); Home maintenance (adhesives, insulation, paint/stains, lubricants) PubChem, (2026); EPA, (n.d)	Solvent PubChem, (2026)	Increased risk of cancer (liver, kidney, non-Hodgin's lymphoma); nerve, kidney and liver damage (chronic inhalation) Can exacerbate dermatitis Endocrine-disrupting chemical (reproductive effects); impaired immune system function, and impaired fetal development in pregnant women EPA, (2016); PubChem, (2026)	Inhalation, ingestion, dermal	Sweet odour; 28 ppm EPA, (2016)	IARC Group 2A; probable human carcinogen; Neurotoxin, nephrotoxin PubChem, (2026)	Air (air pollutant), soil, water EPA, (n.d)	2 µg/m3 (Long term) Health Canada, (n.d)	See here: Presence on lists - https://comptox.epa.gov/dashboard/dsstoxdb/results?search=DTXSID0021383
Trichloromonofluoromethane CCl ₃ F Cas #: 75-69-4	137.4	Found commonly in scent-free and non-scent-free spaces during IAQ testing; Hazardous to health and environment (Phased out under the <i>Montreal Protocol</i>)	Synthetic	45 years EPA, (n.d)	Cleaning products (general household cleaning, bathroom cleaners, carpet/floor cleaners, laundry/ fabric treatments); Home maintenance (insulation, paints/stains) Personal care products (deodorant sprays) EPA, (n.d)	Blowing agent, refrigerant, solvent, chemical intermediate, propellant PubChem, (2026)	Individuals with cardiovascular disease are/ at increased risk, due to potential cardiovascular and respiratory effects PubChem, (2026)	Inhalation, ingestion, dermal	Odourless; none specified	Neurotoxin Pubchem, (2026)	Air, water, soil (high ozone depletion potential) EPA, (n.d)	Not specified	See here: Presence on lists - https://comptox.epa.gov/dashboard/chemical/details/DTXSID5021384