

# Key search 1 - Initial search 2022\_Human studies (PubMed)

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**This is a paper for discussion. This does not represent the views of the Committee and should not be cited.**

11. Literature search date: 22<sup>nd</sup> March 2022 (updated January 2024 (presumably 24<sup>th</sup>)[2]).

12. Search concept: Fluorides AND adverse outcomes AND human NOT Animals NOT Perfluoride (see below for further details).

13. Chemical search terms (fluorides concept): "Fluorides"[Mesh:NoExp[3] ] OR "Fluorides, Topical"[Mesh] OR "Sodium Fluoride"[Mesh] OR "Calcium Fluoride"[Mesh] OR "sulfuryl fluoride" [Supplementary Concept] OR "hexafluorosilicic acid" [Supplementary Concept] OR "hexafluorosilicate" [Supplementary Concept] OR "potassium fluoride" [Supplementary Concept] OR "ammonium fluoride" [Supplementary Concept] OR "boron trifluoride" [Supplementary Concept] OR Fluoride[tiab[4]] OR Fluorides[tiab] OR "16984-48-8"[tiab] OR 16984488[tiab] OR "Fluoride ion"[tiab] OR "Sulfuryl fluoride"[tiab] OR "sulfonyl fluoride"[tiab] OR Vikane[tiab] OR "Fluorosilicic acid"[tiab] OR hydrofluorosilicate[tiab] OR "Sodium hexafluorosilicate"[tiab] OR "disodium hexafluorosilicate"[tiab] OR "sodium fluorosilicate"[tiab] OR "Sodium fluoride"[tiab] OR "Potassium fluoride"[tiab] OR "Calcium fluoride"[tiab] OR

"Ammonium fluoride"[tiab] OR "Boron trifluoride"[tiab] OR "Diethyl ether-boron trifluoride"[tiab] OR (organopolysiloxanes[tiab] AND "fluorinated group"[tiab]).

14. Toxicity search terms (adverse outcomes concepts, combined with OR operator)[\[5\]](#):

Toxicity (general concept): "abnormalities"[Subheading] OR "adverse effects"[Subheading] OR "Chemically-Induced Disorders"[Mesh] OR "complications" [Subheading] OR "injuries"[Subheading] OR "Long Term Adverse Effects"[Mesh] OR "pathogenicity" [Subheading] OR "Toxicity Tests"[Mesh] OR "toxicity" [Subheading] OR "Toxicological Phenomena"[Mesh] OR ((adverse[tiab] OR chronic[tiab] OR fatal[tiab] OR harmful\*[tiab] OR negative[tiab] OR serious[tiab] OR side[tiab] OR Subchronic[tiab] OR undesirable[tiab]) AND (effect\*[tiab] OR event\*[tiab] OR outcome\*[tiab] OR reaction\*[tiab])) OR Abnormal\*[tiab] OR Anomal\*[tiab] OR "Benchmark dose"[tiab] OR "Benchmark doses"[tiab] OR BMD[tiab] OR BMDL[tiab] OR Complication\*[tiab] OR Deficien\*[tiab] OR Deleterious[tiab] OR "Dose effect"[tiab] OR "Dose response"[tiab] OR Hazard\*[tiab] OR injurious[tiab] OR Intox\*[tiab] OR LOEL[tiab] OR LOAEL[tiab] OR "Lowest Observable Adverse effect level"[tiab] OR "Lowest Observed Adverse effect level"[tiab] OR Malformation\*[tiab] OR NOAEL[tiab] OR NOAELs[tiab] OR NOEL[tiab] OR NOELs[tiab] OR "No Observable Adverse Effect Level"[tiab] OR "No Observed Adverse Effect Level"[tiab] OR "No Observed Effect Level"[tiab] OR Pathogenic\*[tiab] OR Patholog\*[tiab] OR Physiopatholog\*[tiab] OR Toxic\*[tiab] OR Unhealth\*[tiab] OR Unsafe[tiab].

Neurotoxicity and developmental neurotoxicity concept: "Attention"[Mesh] OR "Brain"[Mesh] OR "Brain/growth and development"[Mesh] OR "Cognition Disorders"[Mesh] OR "Cognition"[Mesh] OR "Dementia"[Mesh] OR "Intelligence Tests"[Mesh] OR "Intelligence"[Mesh] OR "Learning Disabilities"[Mesh] OR "Learning"[Mesh] OR "Memory and Learning Tests"[Mesh] OR "Memory Disorders"[Mesh] OR "Memory"[Mesh] OR "Nervous System Diseases"[Mesh] OR "Nervous System"[Mesh] OR "Neurobehavioral Manifestations"[Mesh] OR "Neurocognitive Disorders"[Mesh] OR "Neurodevelopmental disorders"[Mesh] OR "Neurotoxicity Syndromes"[Mesh] OR ((Attention[tiab] OR Behav\*[tiab] OR Brain[tiab] OR Brains[tiab] OR cognit\*[tiab] OR Coordination[tiab] OR develop\*[tiab] OR neur\*[tiab] OR nervous[tiab] OR mental[tiab]) AND (deficit\*[tiab] OR diagnosis[tiab] OR diagnoses[tiab] OR disease\*[tiab] OR disorder\*[tiab] OR dysfunction\*[tiab] OR impair\*[tiab] OR manifestation\*[tiab] OR problem\*[tiab] OR retard\*[tiab] OR syndrome\*[tiab] OR patholog\*[tiab])) OR (DNT[tiab] NOT dinitrotoluene[tiab]) OR "barnes maze"[tiab] OR "Biel Maze"[tiab] OR "Charcot-Marie-Tooth"[tiab] OR "Cincinnati Maze"[tiab] OR "Contextual

Fear"[tiab] OR "developmental period\*"[tiab] OR "Guillain-Barre syndrome"[tiab] OR "IQtest\*"[tiab] OR "Long term potentiation\*"[tiab] OR "mazes\*"[tiab] OR "mental-recall\*"[tiab] OR "Morris water maze"[tiab] OR "nerve-transmi\*"[tiab] OR "Nervous system"[tiab] OR "Neuro-development\*"[tiab] OR "Neurogenes\*"[tiab] OR "neuronal-transmi\*"[tiab] OR "neurotransm\*"[tiab] OR "Novel Object recognition"[tiab] OR "passive avoidance"[tiab] OR "presynaptic-terminal\*"[tiab] OR "radial arm maze"[tiab] OR "Rey Osterieth Complex Figure"[tiab] OR "rheumatoid arthritis"[tiab] OR "scholastic-achievement\*"[tiab] OR "Sjogren's syndrome"[tiab] OR "spontaneous alternation"[tiab] OR "Synaptic circuit\*"[tiab] OR "Synaptic dysfunction\*"[tiab] OR "Synaptic impair\*"[tiab] OR "Synaptic net"[tiab] OR "Synaptic nets"[tiab] OR "Synaptic network\*"[tiab] OR "Synaptic plasticity"[tiab] OR "synaptic-neurotransmi\*"[tiab] OR "synaptic-transmi\*"[tiab] OR "trace fear"[tiab] OR Alzheimer\*[tiab] OR Amnesia[tiab] OR behav\*[tiab] OR Cerebell\*[tiab] OR Cerebr\*[tiab] OR Cortex[tiab] OR CVMT[tiab] OR Dementia[tiab] OR Hippocam\*[tiab] OR intelligence[tiab] OR learn\*[tiab] OR Locomot\*[tiab] OR memory[tiab] OR Neocortex[tiab] OR Neuroanatom\*[tiab] OR Neurobehav\*[tiab] OR Neurocognit\*[tiab] OR Neurodevelop\*[tiab] OR Neurodevelopment\*[tiab] OR Neurogenes\*[tiab] OR Neuropath\*[tiab] OR Neurotox\*[tiab] OR neurotransmi\*[tiab].

Specific Adverse Outcome concept: "Fluorosis, Dental"[Mesh] OR "Tooth Diseases"[Mesh:NoExp] OR Fluoros\*[tiab] OR "Dental diseas\*"[tiab] OR "Mottled Enamel\*"[tiab] OR "Skeletal diseas\*"[tiab] OR "Tooth diseas\*"[tiab] OR "Teeth diseas\*"[tiab].

15. Species concept (exclusions, covered using NOT operator):

Just Animals: ("Animals"[Mesh] NOT "Humans"[Mesh])

Animals in title ((rat[tiab] OR rats[ti] OR mouse[ti] OR mice[ti] OR swine[ti] OR porcine[ti] OR murine[ti] OR sheep[ti] OR lambs[ti] OR pigs[ti] OR piglets[ti] OR rabbit[ti] OR rabbits[ti] OR cat[ti] OR cats[ti] OR dog[ti] OR dogs[ti] OR cattle[ti] OR bovine[ti] OR monkey[ti] OR monkeys[ti] OR trout[ti] OR marmoset\*[ti]) NOT medline[sb[7]]).

16. Term excluded: Perfluor\*[tiab].

[2] The main document lists this as January 2024, while annex G lists this as 24<sup>th</sup> January 2022 with the time span as 2022-2024 (an update of the March 2022 search).

[3] No explode command (excluding subtopics).

[4] Title/abstract.

[5] Other concepts covered included: Liver, renal, gastrointestinal; Lung toxicity; Reproductive system and teratogenesis toxicity; Carcinogenicity; Chronic inflammation; Oxidative stress, cytotoxicity and genotoxicity; Allergenicity and immune system

[6] Title.

[7] Subset search tag.