

Preliminary Ranking of Contaminants

MDH CONTAMINANTS OF EMERGING CONCERN (CEC) INITIATIVE

MDH staff conducted screenings of toxicity and exposure potential for 14 contaminants nominated to the MDH CEC Initiative this year. The screening and scoring results for these 14 contaminants were added to the existing pool of previously screened contaminants that have not undergone full review, creating a pool of 100 screened contaminants for consideration. Of the 100 screened contaminants, MDH considered 70 to have sufficient and applicable information available for MDH to complete an in-depth toxicological review, and 30 to have insufficient information for a review at this time. In addition, 14 contaminants were identified as disinfection byproducts (DBPs), five of which are also identified as having insufficient information for a full review.

Exposure to DBPs result from the necessary health protective process of disinfection. Because the standard risk assessment process focuses on health risks and not health benefits the 14 DBPs will not be evaluated through the standard process but instead, will be evaluated through a Disinfection Byproduct Special Project. As a result, 61 contaminants remained in the pool for full review consideration.

Based on the screening results, MDH assigned a preliminary ranking of high, medium, or low to each contaminant of the remaining 61 screened contaminants for which an in-depth review is considered feasible. MDH uses the preliminary ranking to inform selection of contaminants for an in-depth review and guidance development.

Contaminants in the tables below are in alphabetical order for each rank bin (high, medium, and low). In addition to the preliminary ranking, MDH also considers several other factors in selecting contaminants for review including stakeholder needs and concerns and staff availability and resources.

Additionally, tables listing contaminants for which a full review is not feasible due to insufficient information and contaminants which are identified as DBPs are also provided below.

PRELIMINARY RANKING OF CECS

High Rank [in alphabetical order]

Contaminant	CASRN
Amitriptyline	50-48-6
Anthraquinone	84-65-1
Bisphenol S	80-09-1
Bupropion	34911-55-2
Cobalt	7440-48-4
Codeine	76-57-3
17beta-Estradiol	50-28-2
Fluconazole	86386-73-4
Fluoxetine	54910-89-3
Hydroquinone	123-31-9
Lithium	7439-93-2
2-Methoxyethanol	109-86-4
Nicotine (3-[(2S)-1-methylpyrrolidin-2-yl] pyridine)	54-11-5
Oxyfluorfen	42874-03-3
Perfluorodecanoic acid (PFDA)	335-76-2
Perfluorohexanoic acid (PFHxA)	307-24-4
Perfluorononanoic acid (PFNA)	375-95-1
o-Toluidine	95-53-4
Tributyl phosphate (TBP)	126-73-8

Medium Rank [in alphabetical order]

Contaminant	CASRN
Androstenedione	63-05-8
Azithromycin	83905-01-5
Bifenthrin	82657-04-3
Butylated hydroxyanisole	25013-16-5
Carbadox	6804-07-5
Chlorinated paraffins (short, medium, and long chain)	85535-84-8; 85535-85-9; 85535-86-0
Copper sulfate	7758-98-7, 7758-99-8, 1344-73-6, 1332-14-5
Cylindrospermopsin	143545-90-8
Decabromodiphenyl ether (decaBDE)	1163-19-5
Diphenhydramine	58-73-1
Endothall	145-73-3, 2164-07-0, 66330-88-9
Formaldehyde	50-00-0
Hexabromocyclododecane (HBCD)	3194-55-6
Hexahydrohexamethyl-cyclopenta-benzopyran (HHCB)	1222-05-5
Metformin	1115-70-4
4-Nonylphenol monoethoxycarboxylate (NP1EC)	3115-49-9
Piperonyl butoxide	51-03-6
Saxitoxin	35523-89-8
Tramadol	27203-92-5
Triclopyr	55335-06-3
Trimethoprim	738-70-5
Triphenyl phosphate	115-86-6

PRELIMINARY RANKING OF CECS

Low Rank [in alphabetical order]

Contaminant	CASRN
Acesulfame K	55589-62-3
1-Bromopropane	106-94-5
Decabromodiphenyl ethane (DBDPE)	84852-53-9
Diallyl dimethyl ammonium chloride (DADMAC)	7398-69-8
Diethylene glycol	111-46-6
Dimethipin	55290-64-7
Diquat	85-00-7
Ethoprop	13194-48-4
Fluridone	59756-60-4
Gemfibrozil	25812-30-0
Imazapyr	81334-34-1
Lincomycin	154-21-2
Menthol (D/L Menthol)	89-78-1
Methyl paraben	99-76-3
Metoprolol	51384-51-1
Oxybenzone	131-57-7
2-Propen-1-ol (allyl alcohol)	107-18-6
Propyl paraben	94-13-3
Sulfathiazole	72-14-0
Warfarin	81-81-2

In-Depth Toxicological Review Not Feasible At This Time [in alphabetical order]

Contaminant	CASRN
Androsterone	53-41-8
Bromoacetic acid	79-08-3
Chloranil	118-75-2
Colchicine	64-86-8
Colloidal silver	NA
Cotinine	486-56-6
Dichloriodomethane	594-04-7
Estrone	53-16-7
6:2 Fluorotelomer sulfonic acid	425670-75-3
Germanium	7440-56-4
Iodoacetamide	144-48-9
Iodoacetic acid	64-69-7
Iodoform	75-47-8
Iopamidol	60166-93-0
Lidocaine	137-58-6
Meprobromate	57-53-4
Nanosilver	NA
Nodularin	118399-22-7
4-Nonylphenol diethoxycarboxylate (NP2EC)	106807-78-7
Nonylphenol diethoxylate (NP2EO)	20427-84-3
Nonylphenol monoethoxylate (NP1EO)	27986-36-3
4-Nonylphenol triethoxycarboxylate (NP3EC)	108149-59-3
Perfluorodecanesulfonate (PFDS)	126105-34-8
Perfluoroheptanoic acid (PFHpA)	375-85-9

PRELIMINARY RANKING OF CECS

Contaminant	CASRN
Perfluorooctanesulfonamide (PFOSA)	754-91-6
Perfluoropentanesulfonate (PFPeS)	175905-36-9
Perfluoropentanoic acid (PFPeA)	2706-90-3
Polydiallyl dimethyl ammonium chloride (pDADMAC)	26062-79-3
Skatol (3-methyl-1H-indole)	83-34-1
Tribromoacetic acid	75-96-7

Disinfection By-Product Special Project [in alphabetical order]

Contaminant	CASRN
Bromoacetic acid*	79-08-3
Bromochloroacetic acid	5589-96-8
Bromodichloroacetic acid	71133-14-7
Bromoform	75-25-2
Chlorate	14866-68-3
Chloroacetic acid	79-11-8
Dibromoacetic acid	631-64-1
Dibromochloroacetic acid	5278-95-5
Dichloroacetic acid	79-43-6
Dichloriodomethane*	594-04-7
Iodoacetamide*	144-48-9
Iodoacetic acid*	64-69-7
Iodoform*	75-47-8
Tribromoacetic acid	75-96-7

**also listed as In-Depth Toxicological Review Not Feasible At This Time*

Minnesota Department of Health
 Health Risk Assessment
 625 Robert Street N
 PO Box 64975
 St. Paul, MN 55164-0975
health.legacy@state.mn.us
www.health.state.mn.us

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To obtain this information in a different format, call: 651-201-4898.