

## October 2010 Updates to the Chemicals of High Concern list

Minnesota Department of Health (MDH) has updated the Minnesota Chemicals of High Concern (CHC) list to better reflect high production volume (HPV) chemical designations for inorganic chemicals and to refine or correct health endpoint and source attribution information for some records. This update did not involve a full review of chemicals currently on the CHC list. **No chemicals have been added to or removed from the CHC list at this time.** The changes are as follows:

### Inorganic chemicals

High production volume (HPV) chemicals are those that are manufactured or imported into the U.S. in quantities of one million pounds or more per year, based on data collected by the Environmental Protection Agency (EPA) Inventory Update Reporting (IUR) under the Toxic Substances Control Act (TSCA) (Environmental Protection Agency [EPA], 2010a). Chemicals eligible to be Minnesota Priority Chemicals must be HPV chemicals named by the EPA, and must have been previously named to the CHC list by MDH (Minn. Stat. 116.9403).

To ensure that appropriate HPV chemicals were added to the initial CHC list, screening of HPV chemicals was necessary. The five IUR inventories from 1990-2006 have a total of 4755 HPV chemicals, but limited time and resources made screening all of these chemicals for the CHC list impractical. MDH therefore used a system of selecting HPV chemicals for screening that required the chemical to appear on *both* the most recent IUR inventory (2006) and three of the four remaining inventories from 1990-2002. This resulted in 1895 HPV chemicals to screen.

In 2006, EPA changed the reporting requirements for the IUR, requiring for the first time that inorganic chemicals be subject to IUR reporting (EPA 2010b). Essentially, the 2006 inventory is the only inventory currently available that mandated inorganic chemical information, though some data appears to have been submitted voluntarily for previous inventories. The system developed by MDH for screening HPV chemicals, described above, did not account for the lack of inorganic chemical reporting from 1990-2002, and subsequently the HPV inorganic chemicals were not properly categorized on the CHC list released in July 2010. To convey which inorganic chemicals met the high production volume criteria, MDH is updating its classification for HPVs to include inorganic chemicals reported at one million pounds or more on the 2006 inventory. Categorizations of inorganic chemicals that were already identified as HPV on the CHC list based on voluntary data from previous IUR inventories were not changed. All chemicals that MDH re-categorized as HPV were already on the CHC list published in July 2010. No chemicals were added to or removed from the Minnesota CHC list at this time. Further, none of the HPV designations for organic chemicals have changed.

This change involves 29 inorganic chemicals that are on the current CHC list (published in July 2010). For these, the HPV column now contains a designation of “x (2006)” to indicate that the inorganic chemical was only required to be reported on the 2006 inventory. Again, **all of these chemicals were already on the CHC list released in July**

**2010: only the HPV categorization was corrected.** Table 1 below contains the list of these chemicals.

**Table 1: Inorganic chemicals on the 2010 Minnesota Chemicals of High Concern list designated as high production volume based on the 2006 Environmental Protection Agency Inventory Update Reporting inventory**

CAS Number	Chemical Name
7440-36-0	Antimony
1303-28-2	Arsenic oxide, arsenic pentoxide, diarsenic pentaoxide
1327-53-3	Arsenic trioxide, diarsenic trioxide
10043-35-3	Boric acid
7440-42-8	Boron
7440-43-9	Cadmium
10049-04-4	Chlorine dioxide
7758-19-2	Chlorite (sodium salt)
1333-82-0	Chromium (VI) trioxide
1344-37-2	C.I. Pigment Yellow 34 (Lead chromate)
1307-96-6	Cobalt [II] oxide
7646-79-9	Cobalt dichloride
7440-48-4	Cobalt metal powder
10124-43-3	Cobalt sulfate
302-01-2	Hydrazine
7439-92-1	Lead
7439-96-5	Manganese
7439-98-7	Molybdenum
7440-02-0	Nickel (Metallic)
1313-99-1	Nickel oxide
12035-72-2	Nickel subsulfide
10024-97-2	Nitrous oxide
7790-98-9	Perchlorate and perchlorate salts
7664-38-2	Phosphoric acid
7723-14-0	Phosphorus
14808-60-7	Silica, crystalline (inhaled in the form of quartz or cristobalite from occupational sources)
7440-22-4	Silver
1314-62-1	Vanadium pentoxide (orthorhombic crystalline form)
7440-66-6	Zinc

### **Source attribution and health endpoints**

The CHC list from July 2010 had some omissions or errors related to source attributions or health endpoints. The corrections in Table 2 below have been made to the CHC list. Again, no chemicals have been added or removed from the Minnesota CHC list at this time. A more thorough review and consideration of chemicals on the CHC list will occur at a later time, per Minn. Stat. 116.9402. For a copy of the current CHC list, please see <http://www.health.state.mn.us/divs/eh/hazardous/topics/toxfreekids/highconcern.html>

**Table 2: Corrections to the Minnesota CHC list, October 2010**

<b>CAS number</b>	<b>Chemical Name</b>	<b>Change</b>
58-89-9	Hexachlorocyclohexane, gamma-, (Lindane)	Added "Canada PBIT" in the "Source(s)" column.
87-86-5	Pentachlorophenol	Added "EU Endocrine Disruptor" in the "Source(s)" column.
91-94-1	[1,1'-biphenyl]-4,4'-diamine, 3,3'-dichloro-	Added "IRIS" in the "Source(s)" column.
106-89-8	Epichlorohydrin	Added "EU Endocrine Disruptor" in the "Source(s)" column.
117-81-7	1,2-benzenedicarboxylic acid, bis(2-ethylhexyl) ester (DEHP) (DOP) (phthalate)	Added "REACH Substances of Very High Concern" in the "Source(s)" column.
121-82-4	Cyclonite (RDX)	Changed source from NTP to ATSDR.
133-49-3	Pentachlorobenzenethiol	Added "EU PBT" to the "Source(s)" column.
205-82-3	Benzo(j)fluoranthene	Removed "IRIS" from the "Source(s)" column.
205-99-2	Benzo(b)fluoranthene	Added "IRIS" to the "Source(s)" column.
1335-32-6	Lead subacetate	Added "Reproduction" to the "Health endpoint(s)" column. Added "EU Reproductive Toxicant" to the "Source(s)" column.
1336-36-3	Polychlorinated Biphenyls (PCBs)	Added "Endocrine system" to the "Health endpoint(s)" column. Added "EU Endocrine Disruptor" to the "Source(s)" column.
2385-85-5	Mirex	Added "EU Endocrine Disruptor" to the "Source(s)" column.

2437-79-8	1,1'-biphenyl, 2,2',4,4'-tetrachloro-	Added "EU Endocrine Disruptor" to the "Source(s)" column.
3268-87-9	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	Removed "Canada PBiT" from the "Source(s)" column.
3468-63-1	2-Naphthalenol, 1-[(2,4-dinitrophenyl)azo]-	Added "Canada PBiT" to the "Source(s)" column.
3697-24-3	5-Methylchrysene	Added "EPA Final Rule for TRI" in the "Source(s)" column.
5285-60-9	benzenamine, 4,4'-methylenebis[N-(1-methylpropyl)-	Replaced "Canada PBiT" with "OSPAR Chemicals of Concern" in the "Source(s)" column.
7446-27-7	Lead phosphate	Added "Reproduction" to the "Health endpoint(s)" column. Added "EU Reproductive Toxicant" to the "Source(s)" column.
10453-86-8	Resmethrin	Added "EU Endocrine Disruptor" to the "Source(s)" column.
17540-75-9	phenol, 2,6-bis(1,1-dimethylethyl)-4-(1-methylpropyl)-	Added "Canada PBiT" to the "Source(s)" column.
32809-16-8	Pronamide	Added "Endocrine System" to the "Health endpoint(s)" column. Added "EU Endocrine Disruptor" to the "Source(s)" column.
50471-44-8	2,4-oxazolidinedione, 3-(3,5-dichlorophenyl)-5-ethenyl-5-methyl-	Added "Development" and "Endocrine System" to the "Health endpoint(s)" column. Added "OSPAR Chemicals of Concern" and "EU Endocrine Disruptor" to the "Source(s)" column.
65996-93-2	Pitch, coal tar, hightemp.	Removed "Canada PBiT" from the "Source(s)" column; corrected parenthesis.
140923-17-7	lprovalicarb (also CAS#140923-25-7)	Removed "Canada PBiT" from the "Source(s)" column.

## References

U.S. Environmental Protection Agency. 2010a. High Production Volume (HPV) Chemical Challenge Program. Retrieved October 6, 2010 from <http://www.epa.gov/chemrtk/pubs/general/basicinfo.htm>

U.S. Environmental Protection Agency. 2010b. Inventory Update Reporting: IUR Data. For 2006. Retrieved October 6, 2010 from <http://www.epa.gov/oppt/iur/tools/data/index.html>



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