Summary of Health Canada's Approach to Pesticides in the Domestic Substances List Pilot Phase

The Domestic Substances List (DSL) consists of approximately 23 000 substances that were imported, manufactured or used in Canada between 1984 and 1986. Under the *Canadian Environmental Protection Act, 1999* (CEPA 1999), Environment Canada and Health Canada are to determine which DSL substances may require a screening assessment. A pilot phase project was created in 2000 to develop approaches to conduct these screening assessments. One hundred and twenty-three substances were chosen for the pilot phase (93 nominated by Environment Canada and 30 by Health Canada), of which 13 were identified as being used as active ingredients in pesticide products.

The Pest Management Regulatory Agency (PMRA) also performs environmental and human health assessments under the *Pest Control Products Act*. These assessments are considered to be equivalent to those prepared by Environment Canada and Health Canada under CEPA 1999. A separate assessment is therefore not required for substances assessed by PMRA unless the substances are also used in non-pesticidal applications. Environment Canada and Health Canada are responsible for assessing non-pesticidal uses of substances on the DSL.

A preliminary examination of the 13 pesticides was conducted by Environment Canada to determine whether these substances had any other uses. It was determined that five of the 13 pesticides had other known, non-pesticidal uses or could be formed in polluted atmospheres by transformation of other substances. The remaining eight substances were examined more closely by both Environment Canada and Health Canada.

Health Canada's approach to consider priority for assessment of these substances consisted of performing a limited search to determine if the substances had any non-pesticidal uses. The search strategy consisted of examining documents compiled by Health Canada and Environment Canada, reference texts and publicly available information on chemical use, quantities (if available) and legislation. In addition, the PMRA website, including the ELSE (Electronic Labels: Search and Evaluation) Label Search Database, was consulted, as were PMRA staff, where appropriate. If Canadian-specific information could not be found, information from the United States and Europe was used. The information was compiled into a "Use Profile" (refer to Attachment 1), which revealed that six of the eight substances were used only in registered pesticide products. A summary table, containing the results of the Use Profiles for these six substances, is included in Attachment 2.

The results of this use profiling are consistent with entry characterizations developed by Environment Canada.

Since non-pesticidal uses have not been identified and since pesticidal applications are regulated under the *Pest Control Products Act*, assessment of these six substances under CEPA 1999 is not considered to be a priority at this time.

ATTACHMENT 1 – USE PROFILE

CAS #:
Evaluator:
Search Date:
Chemical Name:

Structure:

Environment Canada Category:
Consumer Product Uses:
Recommendation:

DSL Use Codes and Description	Confidential Information
DSL Total Quantity	Confidential Information
Section 71 Report Trigger Quantity	
Section 71 Use Codes and Description	Confidential Information
Section 71 Total Quantity	Confidential Information
TSCA IUR 2002 Quantity	
NPRI Release Data	
TRI Release Data	
EPER Release Data	
Environmental Monitoring	
Reviews or Reports	
Uses in Canada	

CAS, Chemical Abstracts Service; DSL, Domestic Substances List; EPER, European Pollutant Emission Register; NPRI, National Pollutant Release Inventory; Section 71 refers to the *Canadian Environmental Protection Act, 1999*; TRI, Toxics Release Inventory; TSCA IUR, Toxic Substances Control Act Inventory Update Rule.

ATTACHMENT 2 – SUMMARY TABLE OF RESULTS OF SIX PESTICIDE USE-ONLY SUBSTANCES

Substances in DSL Pilot Phase Considered "Not Priorities for Screening Health Assessment Currently" Owing to Uses Only as Pesticides[1–3]

All of the pilot phase substances listed in this table are not considered priorities for screening health assessment currently, because they are used only in applications that are regulated under the *Pest Control Products Act*. Additional information obtained during the health-related categorization of the DSL supporting the conclusion that these substances are not priorities for screening health assessment is also presented. Supporting documentation listed below is available at http://www.hc-sc.gc.ca/ewh-semt/contaminants/existsub/framework-cadre_e.html or upon request from ExSD@hc-sc.gc.ca.

CAS No.	Name	Chemical class	Nomination to pilot phase[4]	SimHaz[5]	SimET[6]	Exposure information[7]			Additional information[7]
						DSL	Section 71	Other information	
72-43-5	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-methoxy- (Methoxychlor)		EC		LPE	Between 100 and 1000 kg reported	No use above 100 kg reported	Registered in Canada as a commercial and domestic insecticide and fungicide (PMRA database[8]); uses include insecticide (25%), fly & mosquito killer, horticultural dust, flea & tick spray, yard fogger	The product was withdrawn from the U.S. market in 2003, and re-registration was denied in 2004. It is considered to be no longer in use by FAO/WHO.
3691-35-8	1H-Indene-1,3(2H)-dione, 2-[(4-chloro-phenyl)phenylacetyl]- (Chlorophacinone)		EC		LPE	Between 100 and 1000 kg reported	No use above 100 kg reported	Registered in Canada as a commercial and domestic rodenticide (PMRA database)	
87-86-5	Phenol, pentachloro-		EC	High	IPE	1 000 000 kg reported: formulation component; pesticide/herbicide/biocide/ disinfectant/repellant/ attractant; preservative; forestry/wood products/ wood treatment; petroleum and natural gas	Confidential information	Registered in Canada as a commercial wood preservative (PMRA database)	The agricultural use of pentachlorophenol and the use of penta-chlorophenol for indoor wood treat-ment were suspended in Canada (IPCS 1989).[9]
1582-09-8	Benzenamine, 2,6-dinitro-N,N-dipropyl-4-(trifluoromethyl)- (Trifluralin)		EC	High	LPE	Under 100 kg reported	Confidential information	Registered in Canada as an agricultural, commercial and domestic herbicide (PMRA database)	

CAS No.	Name	Chemical class	Nomination to pilot phase[4]	SimHaz[5]	SimET[6]	Exposure information[7]			Additional information[7]
						DSL	Section 71	Other information	
1897-45-6	1,3-Benzenedicarbo-nitrile, 2,4,5,6-tetra-chloro- (Chlorothalonil)		EC	High	LPE	11 000 kg reported: formulation component; paint/coating additives; metallurgical; pigment, dye and printing ink	Used in household paints to prevent mildew; used as fungicide	Registered in Canada as a commercial fungicide, as a domestic insecticide/fungicide and as a microbicide in paints (PMRA database)	
1912-24-9	1,3,5-Triazine-2,4-diamine, 6-chloro-N-ethyl-N'-(1-methylethyl)- (Atrazine)		EC	High	LPE	Between 1001 and 100 000 kg reported	Confidential information	Registered in Canada as a commercial and domestic herbicide (PMRA database); used on up to 70% of corn production as a pre-emergent or emergent herbicide	

Notes:

1. All uses of these substances are regulated under the *Pest Control Products Act*.
2. Information on the Health-Related Components of DSL Categorization is available at http://www.hc-sc.gc.ca/ewh-semt/contaminants/existsub/framework-cadre_e.html.
3. Additional supporting documentation (available upon request from ExSD@hc-sc.gc.ca) includes a Use Profile for each substance, documentation of the search strategy to create the Use Profile and, in some cases, the results of a survey undertaken in 2000 pursuant to Section 71 of CEPA 1999 on substances in the DSL pilot phase.
4. Substances were nominated to the pilot phase by Health Canada (HC) or Environment Canada (EC).
5. The Simple Hazard Identification Tool (SimHaz) was used to identify substances as posing either a high hazard or a low hazard to human health.
6. The Simple Exposure Tool (SimET) was used to identify substances as having the Greatest Potential for Exposure (GPE), an Intermediate Potential for Exposure (IPE) or the Lowest Potential for Exposure (LPE).
7. Abbreviations used: CEPA 1999, *Canadian Environmental Protection Act, 1999*; DSL, Domestic Substances List; FAO, Food and Agriculture Organization of the United Nations; PMRA, Pest Management Regulatory Agency; Section 71 refers to CEPA 1999; WHO, World Health Organization.
8. Pest Management Regulatory Agency ELSE (Electronic Labels: Search and Evaluation) database; available online at http://eddenet.pmra-arla.gc.ca/4.0/4.0.asp.
9. IPCS (1989) Pentachlorophenol Health and Safety Guide. Guide No. 19. International Programme on Chemical Safety, World Health Organization, Geneva.