

RM1 Meeting Summary

DATE: March 4, 1992
SUBJECT: Screening-Level Testing of TRI Chemicals
CHAIRMAN: Charlie Auer
COORDINATOR: Carol Glasgow
SUPPORTING DOCS.: Briefing paper on TRI Testing Proposal

BACKGROUND:

The RM1 meeting was held to discuss options for acquiring screening-level testing data on high-production-volume high-release (HP/R) chemicals listed on the Toxics Release Inventory (TRI). The goal of this effort is to identify and acquire a consistent minimum set of screening data on the HP/R TRI chemicals to help set priorities for further testing, assessment, and risk reduction activities, as needed, on TRI chemicals.

HP/R TRI chemicals were defined by applying the proposed section 4(a)(1)(B) policy release criteria to the TRI list of chemicals (i.e., production volume over one million pounds, and release over one million pounds or over 10% of production). The list will be adjusted to reflect any changes in the final published "B policy" criteria.

The original list of 90 HP/R TRI entries, was pared down to 73 chemicals at an initial RM1 meeting on April 3, 1991, by excluding the metals categories, inorganic acids and bases, and cyanides category. This list was reviewed to determine the availability of test data of various types. Data gaps for the chemicals were estimated from a matrix, prepared by OPPT's Health and Environmental Review Division, showing the availability of endpoint data on TRI chemicals (attached). This document includes a discussion of the method used to construct the matrix; judgments of data availability and adequacy would need confirmation to support formal section 4 rulemaking.

The list was annotated to indicate high-priority chemicals included on the CAA's Air Toxics list (5 TRI chemicals), the Superfund Amendments and Reauthorization Act §110 (ATSDR) list (10 TRI chemicals), or scheduled for handling under phases 1 to 3 of the Organization for Economic Cooperation and Development's (OECD's) Screening Information Data Set (SIDS) program to obtain screening-level testing on international high production volume chemicals (9 TRI chemicals). The resulting table (attached) was considered at the March 4, 1992 RM1 meeting.

Decisions/Recommendations

- a. The SIDS test set was selected for the TRI screening effort.
- b. For the 9 TRI chemicals being handled under the OECD's SIDS program, there is no need for action at this time beyond that which is underway with OECD.
- c. Fourteen (14) chemicals are high priority for testing under the Air Toxics and ATSDR efforts. Pending development of the testing needs for these chemicals under those efforts (principally health effects and some fate testing), they should be included within the TRI screening testing effort for those endpoints (most likely ecotox and possibly some fate testing) not covered by these other programs. The chemicals identified for the TRI screening effort should be added to the Master Testing List.
- d. The remaining 64 chemicals will be handled as described in (e) and (f).
- e. A SIDS "dossier" (HPV form 1) needs to be prepared for each of the chemicals to summarize the available data and to match data gaps with the SIDS test set. Options for this step are:
 - 1 - Approach industry about voluntarily handling this responsibility, either independently or as an adjunct to the OECD SIDS program.
 - 2 - Use EPA contractor resources to determine the availability and adequacy of the data.
- f. Following this step, testing needs to be undertaken to provide a full SIDS set on the HP/R TRI chemicals. This could be realized via voluntary testing linked to the OECD SIDS effort, one or more consent orders, or a test rule. No decision was made at the RMI meeting as to the course of action for obtaining the testing.
- g. Following discussion with industry, item (e) (SIDS dossier preparation) should be initiated in some form, after which steps will be taken to ensure the development of the needed SIDS data using one or more of the options noted under (f).

Toxics Release Inventory (TRI) Chemicals Produced at >10³ Pounds and Having TRI Releases >10³ Pounds Annually
(Metals, inorganic acids and bases and cyanides were deleted from the initial list in the first RMI meeting)

CAS NO.	CHEMICAL	ANNUAL RELEASE	ATSDR RATING ^a	COG ^b	TOXICITY CODE ^c	COMMENT
00005000	FORMALDEHYDE	21,956,640	220	+	DT,MT	Well tested
000056255	CARBON TETRACHLORIDE	3,506,563	33+	+	SL,E,LEE	High-priority ATSDR
000062533	ANILINE	3,085,102	204	+	DT,MT,NT	§ 4 chemical
000067561	METHANOL ^d	267,765,300	295	+	C,DT,MT,AT,CT,ET	Undergoing EPA evaluation
000067630	ISOPROPYL ALCOHOL ^d	5,617,010	250		DT,ET	§ 4 chemical
000067641	ACETONE	205,019,000	99		EC,DT,AT	Proposed § 4
000067643	CHLOROFORM	25,542,339	8+	+	SL,E	High-priority ATSDR
000071363	N-BUTYL ALCOHOL	39,026,305			DT,ET	Proposed § 4
000071432	BENZENE	25,634,759	5+	+	DL,AL,CL,MT,E	High-priority ATSDR
000071556	1,1,1-TRICHLOROETHANE	160,717,023	64	+	DT	§ 4 chemical
000074039	DIMETHETUONE	2,646,105	-	+	DT,MT	
000074051	ETHYLENE ^d	41,431,946			C,DT,MT,AT,MT,ET	SDS ^e Phase 2
000074073	CHLOROETHANE	9,163,367	190	+	DT,MT,ET	§ 4 chemical
000075003	CHLOROETHANE	4,060,070	139+	+	DT,CT,E,MT,ET	High-priority ATSDR
000075014	VINYL CHLORIDE	1,270,146	4+	+	DL,EL,AL,CL,E,ET	High-priority ATSDR
000075050	ACETONITRILE	19,512,509			DT,ET	SDS Phase 2
000075070	ACETALDEHYDE	9,561,445			DT,MT,CT,MT	SDS Phase 2
000075092	DICHLOROMETHANE	110,261,746	52+	+	DL,AL,CL,ET	High-priority ATSDR
000075150	CARBON DISULFIDE	99,044,642	129	++	C,AT	High-priority CMA
000075210	ETHYLENE OXIDE	3,079,002		+	0	§ 4 chemical, HSE
000075549	PROPYLENE OXIDE	2,076,705		+	0	§ 4 chemical
000075650	tert-BUTYL ALCOHOL	2,404,636			C,DT,MT,AT,CT,MT,ET	

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000076131 FROTH 113' 67,837,298
 000076075 1,2-DICHLOROPROPANE 1,244,912
Subst 000076933 METHYL ETHYL KETONE 128,042,677
 000077016 TRICHLOROETHYLENE 44,343,286
 000077061 ACRYLAMIDE 4,444,340
 000079107 ACRYLIC ACID 19,091,269
Subst 000080626 METHYL METHACRYLATE 3,375,812
 000080891 PICRIC ACID 1,244,212
 000091203 NAPHTHALENE 3,415,528
 000092524 BIPHENYL 1,248,042
 000093476 O-XYLENE 1,085,764
Subst 000093636 1,2,4-TRIMETHYLBENZENE 4,835,251
 000098028 CUMENE 4,436,527
 000100414 ETHYLBENZENE 8,706,503
 000100425 STYRENE 33,549,265
 000100425 P-XYLENE 4,724,374
Subst 000100467 1,4-DICHLOROBENZENE 1,594,350
Subst 000100990 1,3-DIADIENE 5,497,286
 000107062 1,2-DICHLOROETHANE 5,388,282
 000107131 ACRYLONITRILE 10,182,750
Subst 000107211 ETHYLENE GLYCOL 26,052,155
 000108054 VINYL ACETATE 6,722,319
Subst 000108104 METHYL ISOBUTYL KETONE 31,231,111
 000108383 M-XYLENE 1,175,728
 000108883 TOLUENE 256,633,748
Subst 000108987 CHLOROBENZENE 4,282,994

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C,DT,RT,AT,NT,ET CFC; extensive testing by industry
 237 + BAT,CI § 4 chemical
 137 + BC,AT,ET SIDS Phase 2
 10+ + AL,HL,E,L High-priority ATSDR
 DT § 4 chemical, regulated
 + BC,NT § 4 Consent Order
 ++ C,AT,NT,ET High-priority CMA
 210 C,DT,RT,AT,CT,NT Low environmental release
 60 + C,RT,AT,NT
 + BC,RT,AT,NT Limited screening-level testing needed
 197 + C,AT,NT
 GRT,AT,NT § 4 chemical
 + BC,RT,AT § 4 chemical
 + BC,AT,NT Limited screening-level testing needed
 234 + RT,AT,NT Limited screening-level testing needed
 249 + C,AT,CT,NT SIDS Phase 2
 38 + GRT,AT,NT § 4 chemical
 259 + AT Regulated
 61 + AT,NT,ET In RfE
 304 + NT Under RfE evaluation
 + C,DT,RT,AT,NT,ET SIDS Phase 2
 + C,DT,RT,AT,NT SIDS Phase 2
 209 + BC,DT,RT,AT,ET SIDS Phase 2
 247 + BC,RT,NT
 35+ + GRT,CT,NT,B High-priority ATSDR
 65 + BC,DT,AT,NT § 4 chemical

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000100952	PHENOL	15,361,139	85	++	BC	§ 4 chemical; high-priority CAA
000100964	2-METHOXYETHANOL	2,735,177		+	C,AT,NT,ET	
000100985	2-ETHOXYETHANOL	1,740,483		+	BC,AT,ET	
000110027	CYCLOHEXANE ¹	17,343,491	382		BT	§ 4 chemical, final in preparation
000119422	DIETHANOLAMINE	1,356,260		+	C,BT,NT,AT,CT,NT	SIDS Phase 2
000119571	PROPYLENE ²	23,538,064			C,BT,NT,AT,CT,NT,ET	
000117017	DI(2-EHTHYLENYL) PHTHALATE (DEHP)	1,108,280	36+	+	<u>BT,CT,NT,ET</u>	High-priority ATSDR
000120021	1,2,4-TRICHLOROBENZENE	1,168,684	145	+	BT,AT,NT	§ 4 chemical
000123728	BUTYRALDEHYDE	1,352,483			BC,BT,NT,AT,CT,NT	SIDS Phase 2
000123911	1,4-DIOXANE	1,060,050	-	+	BT,NT,AT,CT,NT,ET	SIDS Phase 2; CSB review
000126098	CHLOROPRENE	1,164,533		++	C,ET	High priority CAA
000127104	TETRACHLOROETHYLENE	25,426,334	22+	++	<u>BT,NT,AT,CT,ET</u>	High-priority ATSDR and CAA
000463581	CARBONYL SULFIDE	17,998,444		+	C,BT,NT,AT,NT,ET	
001319773	CRESOL (MIXED ISOMERS)	2,973,477	283	+	BC,NT	SIDS Phase 3; § 4 chemical
001336287	XYLENE (MIXED ISOMERS)	148,209,981	68	+	BC,AT,NT	
001634044	METHYL TERT-BUTYL ETHER ²	3,048,039	231	+	BT,ET	§ 4 chemical
006404522	AMMONIA SQ. (SOLUTION) ²	64,610,069			C,BT,NT,AT,NT,ET	CSB document on ammonia
007783282	AMMONIA SQ. (SOLUTION) ²	545,989,541			C,BT,NT,AT,CT,NT	CSB document on ammonia
010049044	CHLORINE DIOXIDE	6,992,436			C,AT,CT,NT,ET	

¹ Agency for Toxic Substances and Disease Registry chemicals. The numbers given below are the priority ratings of these chemicals, and those with a + after the number are those chosen for first testing. A minus in the column signifies that the chemical was removed from this list.

² Clean Air Act chemicals. A plus in the column below indicates whether these are listed in the CAA for testing, and a second plus indicates those that received a priority for testing.

³ The information presented in this column was taken from the NIEHS Section 313 Toxicity Matrix List from August 1988, or from the list of ATSDR priority tests (underlined).

C = Carcinogenicity

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DT = Developmental Toxicity
RT = Reproductive Toxicity
AT = Acute Toxicity
CT = Chronic Toxicity
NT = Neurotoxicity
ET = Environmental Toxicity
EF = Env. Fate, Identified by AFSS
E = Epidemiology
M = Metabolism/Toxicokinetics
I = Immunotoxicity

0 marks information assessment by CES Section 4 Test Rules review of these chemicals.

* These chemicals were dropped from the list of chemicals to be tested by the workgroup - From 113, isopropyl alcohol, methanol and cyclohexane because of extensive testing required or proposed by EPA, and the ammonia compounds because of delisting petitions.

* Scheduled for handling under the indicated phases of the Organization for Economic Cooperation and Development's Screening Information Data Set

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