

From: "Caroline Cox" <caroline@ceh.org>
To: <coshita@oehha.ca.gov>
Date: 5/5/2009 1:22 PM
Subject: Prioritization of Chemicals for Carcinogen Identification
Committee Review: Proposed Chemicals for Committee Consideration and
Consultation March 2009
Attachments: RTECS triethanolamine.pdf; RTECS dicofol.pdf; RTECS
methoxychlor.pdf; RTECS PFOA.pdf

Cynthia Oshita
Office of Environmental Health Hazard Assessment
Proposition 65 Implementation
P.O. Box 4010 1001 I Street, 19th floor
Sacramento, California 95812-4010

Dear Cynthia Oshita:

The Center for Environmental Health is a nonprofit organization in Oakland whose mission is to protect people from toxic chemicals. We have found that Proposition 65 is a powerful tool to accomplish this goal and we therefore support adding new chemicals to the list of chemicals known to the State to cause cancer or reproductive toxicity.

As the Carcinogen Identification Committee evaluates candidate chemicals for their ability to cause cancer, we think that it is important for the committee to have all available relevant data. I therefore am attaching information from the National Institute for Occupational Safety and Health's RTECS database about the mutagenicity of dicofol, methoxychlor, perfluorooctanoic acid, and triethanolamine. These are chemicals for which the summary document prepared for the May 29, 2009 meeting indicated that no genotoxicity studies were available.

Thank you for the opportunity to participate in the work of the CIC.

Sincerely,

Caroline Cox

Center for Environmental Health
2201 Broadway, Suite 302
Oakland, CA 94612-3017

510.655.3900 x.308 phone
510.655.9100 fax

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The Registry of Toxic Effects of Chemical Substances

Ethanol, 2,2',2'' - nitrilotri -

RTECS #: KL9275000

CAS #: 102-71-6

UPDATE: November 2008

MW: 149.22

MF: C₆H₁₅NO₃

NOTE:

- TOXICITY DATA HAVE NOT BEEN EVALUATED. OMISSION OF A SUBSTANCE OR NOTATION DOES NOT IMPLY ANY RELIEF FROM REGULATORY RESPONSIBILITY.

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SYNONYMS:

- | | |
|---------------------------------|-------------------------|
| 1. 2,2',2'' - Nitrilotriethanol | 10. Triethanolamin - NG |
| 2. Alkanolamine 244 | 11. Triethanolamin |
| 3. Daltogen | 12. Triethanolamine |

- | | |
|------------------------------------|--|
| 4. Nitrilo - 2,2',2'' - triethanol | 13. Triethanolamine (ACGIH) |
| 5. Sterolamide | 14. Triethylamine, 2,2',2'' - trihydroxy - |
| 6. Sting - Kill | 15. Triethylolamine |
| 7. TEA (amino alcohol) | 16. Trihydroxytriethylamine |
| 8. Thiofaco T - 35 | 17. Tris (2 - hydroxyethyl) amine |
| 9. Tri (hydroxyethyl) amine | 18. Trolamine |

SKIN AND EYE IRRITATION DATA AND REFERENCES:

ROUTE/ ORGANISM	DOSE	EFFECT	REFERENCE
eye rabbit	20 mg	severe	AJOPAA 29,1363,1946
eye rabbit	10 mg	mild	TXAPA9 55,501,1980
skin human	15 mg/3 day- intermittent	mild	85DKA8 -,127,1977
skin rabbit	560 mg/24 hour	mild	TXAPA9 19,276,1971

MUTATION DATA AND REFERENCES:

SYSTEM TEST	ROUTE/ ORGANISM/ TISSUE	DOSE	REFERENCE
cytogenetic analysis	human lymphocyte	100 µmol/L	BZARAZ 39,422,1986
sister chromatid exchange	human lymphocyte	1 mmol/L	CYGEDX 21(6),29,1987

REPRODUCTIVE EFFECTS DATA AND REFERENCES:

ROUTE/ ORGANISM	DOSE	EFFECT	REFERENCE
N/R	N/R	N/R	N/R

TUMORIGENIC DATA AND REFERENCES:

ROUTE/ ORGANISM	DOSE	EFFECT	REFERENCE
skin rat	lowest published toxic dose: 129 gm/kg/2 year- intermittent	Tumorigenic: Equivocal tumorigenic agent by RTECS criteria Kidney, Ureter, and Bladder: Bladder tumors	NTPTR* NTP-TR- 449,1999
skin rat	lowest published toxic dose: 90,125 mg/kg/103 week- intermittent	Tumorigenic: Equivocal tumorigenic agent by RTECS criteria Kidney, Ureter, and Bladder: Kidney tumors	NTIS** PB2000-102846

ACUTE TOXICITY DATA AND REFERENCES:

ROUTE/ ORGANISM	DOSE	EFFECT	REFERENCE
intraperitoneal mouse	lethal dose (50 percent kill): 1,450 mg/kg	N/R	RCRVAB 38,975,1969
intraperitoneal rat	lethal dose (50 percent kill): 1,510 mg/kg	N/R	NTIS** OTS0516797
oral guinea pig	lethal dose (50 percent kill): 2,200 mg/kg	N/R	85GMAT -,114,1982
oral mammal (species unspecified)	lowest published lethal dose: 2 gm/kg	N/R	NTIS** OTS0520710
oral mouse	lethal dose (50 percent kill): 5,846 mg/kg	Behavioral: Convulsions or effect on seizure threshold Gastrointestinal: Hypermotility, diarrhea Kidney, Ureter, and Bladder: Other changes	SRTCAC 36(1-4),10,1989
oral rat	lethal dose (50 percent kill): 4,920 µL/kg	Eye: Lacrimation Gastrointestinal: Hypermotility,	NTIS** OTS0516797

		diarrhea Skin and Appendages: Other: Hair	
oral rabbit	lethal dose (50 percent kill): 2,200 mg/kg	N/R	85GMAT -,114,1982
skin rat	lethal dose (50 percent kill): >16 mL/kg	N/R	NTIS** OTS0516797
skin rabbit	lethal dose (50 percent kill): >20 mL/kg	N/R	UCDS** 3/18/1965

OTHER MULTIPLE DOSE DATA AND REFERENCES:

ROUTE/ ORGANISM	DOSE	EFFECT	REFERENCE
inhalation mouse	lowest published toxic concentration: 125 mg/m ³ /6 hour/3 week- intermittent	Cardiac: Changes in heart weight Blood: Pigmented or nucleated red blood cells Blood: Changes in erythrocyte (RBC) count	NTIS** OTS0533591
inhalation rat	lowest published toxic concentration: 2 gm/m ³ /6 hour/3 week- intermittent	Liver: Changes in liver weight Kidney, Ureter, and Bladder: Changes in bladder weight Endocrine: Changes in thymus weight	NTIS** OTS0533592
oral guinea pig	lowest published toxic dose: 192 gm/kg/17 week- intermittent	Liver: Other changes Kidney, Ureter, and Bladder: Other changes	NTIS** OTS0516740
oral mouse	lowest published toxic dose: 2,296 mL/kg/82 week- continuous	Nutritional and Gross Metabolic: Weight loss or decreased weight gain	FAATDF 18,25,1992
oral rat	lowest published toxic dose: 63,028 mg/kg/28 day- continuous	Liver: Changes in liver weight Kidney, Ureter, and Bladder: Changes in bladder weight Related to Chronic Data: Changes in testicular weight	NTIS** OTS0520455

oral rat	lowest published toxic dose: 96 gm/kg/60 day- intermittent	Kidney, Ureter, and Bladder: Other changes	NTIS** OTS0516740
oral rat	lowest published toxic dose: 29,700 µg/kg/90 day- continuous	Liver: Changes in liver weight Kidney, Ureter, and Bladder: Changes in bladder weight	NTIS** OTS0516797
skin guinea pig	lowest published toxic dose: 32 gm/kg/4 day- intermittent	Related to Chronic Data: Death in the "MULTIPLE DOSE" data type field	NTIS** OTS0516740
skin mouse	lowest published toxic dose: 260 gm/kg/13 week- intermittent	Liver: Changes in liver weight Kidney, Ureter, and Bladder: Changes in kidney weight Skin: After systemic exposure: Dermatitis, other	NTPTR* NTP-TR-449,1999
skin mouse	lowest published toxic dose: 182,000 mg/kg/13 week- intermittent	Behavioral: Irritability Skin: After topical application: Primary irritation	TOXID9 78,112,2004
skin mouse	lowest published toxic dose: 459,900 mg/kg/2 year- intermittent	Vascular: Tumors Skin: After topical application: Primary irritation Tumorigenic: Increased incidence of tumors in susceptible strains	TOXID9 78,112,2004
skin mouse	lowest published toxic dose: 730,000 mg/kg/2 year- intermittent	Liver: Tumors Skin: After topical application: Primary irritation Tumorigenic: Increased incidence of tumors in susceptible strains	TOXID9 78,112,2004
skin mouse	lowest published toxic dose: 2,000 mg/kg/17 week- continuous	Nutritional and Gross Metabolic: Weight loss or decreased weight gain	NTPTR* TR-518
skin mouse	lowest published toxic dose: 100 mg/kg/104 week- continuous	Liver: Tumors Skin: After topical application: Corrosive	NTPTR* TR-518
skin mouse	lowest published toxic dose: 100 mg/kg/104 week- continuous	Liver: Other changes Liver: Tumors	NTPTR* TR-518

skin mouse	lowest published toxic dose: 630 mg/kg/104 week- continuous	Liver: Angiosarcoma	NTPTR* TR-518
skin rat	lowest published toxic dose: 65 mg/kg/13 week- intermittent	Kidney, Ureter, and Bladder: Changes in kidney weight Skin: After systemic exposure: Dermatitis, other Nutritional and Gross Metabolic: Weight loss or decreased weight gain	NTPTR* NTP-TR-449,1999
skin rat	lowest published toxic dose: 22,750 mg/kg/13 week- intermittent	Behavioral: Irritability Skin: After topical application: Primary irritation	TOXID9 78,112,2004
skin rat	lowest published toxic dose: 45,990 mg/kg/2 year- intermittent	Kidney, Ureter, and Bladder: Bladder tumors Skin: After topical application: Primary irritation Tumorigenic: Increased incidence of tumors in susceptible strains	TOXID9 78,112,2004
skin rat	lowest published toxic dose: 45,990 mg/kg/2 year- intermittent	Behavioral: Irritability Skin: After topical application: Primary irritation	TOXID9 78,112,2004

REVIEWS:

ORGANIZATION	STANDARD	REFERENCE
American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value	time-weighted average 5 mg/m ³	DTLVS* TLV/BEI,2007
International Agency for Research on Cancer (IARC) Cancer Review	Animal Inadequate Evidence	IMEMDT 77,564,2000
International Agency for Research on Cancer (IARC) Cancer Review	Human Inadequate Evidence	IMEMDT 77,564,2000
International Agency for Research on Cancer (IARC) Cancer Review	Group 3	IMEMDT 77,564,2000

TOXICOLOGY REVIEW		MUREAV 543,201,2003
TOXICOLOGY REVIEW		EMMUEG 39,69,2002
TOXICOLOGY REVIEW		ENTOX* -,266,2005
TOXICOLOGY REVIEW		MUREAV 584,1,2005
TOXICOLOGY REVIEW		MUREAV 659,248,2008

STANDARDS AND REGULATIONS:

ORGANIZATION	STANDARD	REFERENCE
Environmental Protection Agency (EPA) Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) 1988	PESTICIDE SUBJECT TO REGISTRATION OR RE-REGISTRATION	FEREAC 54,7740,1989
Environmental Protection Agency (EPA) Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) 1998 STATUS OF	PESTICIDES: Cancelled	RBREV* -,282,1998
Occupational Exposure Limit - DENMARK	time-weighted average 0.5 mg/m ³ (3.1 mg/m ³), OCT 2002	
Occupational Exposure Limit - THE NETHERLANDS	MAC-TGG 5 mg/m ³ , 2003	
Occupational Exposure Limit - NEW ZEALAND	time-weighted average 5 mg/m ³ , JAN2002	

NIOSH DOCUMENTATION AND SURVEILLANCE:

ORGANIZATION	STANDARD or SURVEY	REFERENCE
National Occupational Hazard Survey 1974	National Occupational Hazard Survey 1974: Hazard Code: M0260; Number of Industries 297; Total Number of Facilities 61,500; Number of Occupations 201;	

	Total Number of Employees Exposed 821,293
National Occupational Exposure Survey 1983	National Occupational Exposure Survey 1983: Hazard Code: M0260 EXIT ; Number of Industries 311; Total Number of Facilities 70,726; Number of Occupations 195; Total Number of Employees Exposed 1,726,272; Total Number of Female Employees Exposed 573,604

STATUS IN FEDERAL AGENCIES:	
ORGANIZATION	REFERENCE
EPA TSCA Section 8(b) CHEMICAL INVENTORY	
Used as lubricant and corrosion inhibitor and in production of shampoos, creams and soaps	
EPA TSCA Section 8(d) unpublished health/safety studies	
EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, JANUARY 2001	
NIOSH Analytical Method, 1994: Aminoethanol compounds II, 3509	
NCI Carcinogenesis Studies (derm);equivocal evidence:rat	
NCI Carcinogenesis Studies (derm);inadequate study:mouse	
NTP Carcinogenesis studies; on test (two year studies), October 2000	

REFERENCES:	
CODEN	REFERENCE
85DKA8	"Cutaneous Toxicity, Proceedings of the 3rd Conference, 1976," Drill, V.A., and P. Lazar, eds., New York, Academic Press, Inc. 1977
85GMAT	"Toxicometric Parameters of Industrial Toxic Chemicals Under Single Exposure," Izmerov, N.F., et al., Moscow, Centre of International Projects, GKNT, 1982
AJOPAA	American Journal of Ophthalmology. (Ophthalmic Pub. Co., 435 N. Michigan Ave., Suite 1415, Chicago, IL 60611) Series 3: V.1- 1918-
BZARAZ	Biologicheskii Zhurnal Armenii. Biological Journal of Armenia. (V/O Mezhdunarodnaya Kniga, 113095 Moscow, USSR) V.19- 1966-
CYGEDX	Cytology and Genetics (English Translation). Translation of TGANAK. (Allerton Press Inc., 150 Fifth Ave., New York, NY 10011) V.8- 1974-

DTLVS*	The Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs) booklet issues by American Conference of Governmental Industrial Hygienists (ACGIH), Cincinnati, OH, 1996
EMMUEG	Environmental and Molecular Mutagenesis. (Alan R. Liss, Inc., 41 E. 11th St., New York, NY 10003) V.10- 1987-
ENTOX*	Encyclopedia of Toxicology: Reference Book, Elsevier, 2005
FAATDF	Fundamental and Applied Toxicology. (Academic Press, Inc., 1 E. First St., Duluth, MN 55802) V.1-40, 1981-97. For publisher information, see TOSCF2
FEREAC	Federal Register. (U.S. Government Printing Office, Supt. of Documents, Washington, DC 20402) V.1- 1936-
IMEMDT	IARC Monographs on the Evaluation of Carcinogenic Risk of Chemicals to Man. (WHO Publications Centre USA, 49 Sheridan Ave., Albany, NY 12210) V.1- 1972-
MUREAV	Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964-
NTIS**	National Technical Information Service. (Springfield, VA 22161) Formerly U.S. Clearinghouse for Scientific & Technical Information.
NTPTR*	National Toxicology Program Technical Report Series. (Research Triangle Park, NC 27709) No.206-
RBREV*	Status of Pesticides in Registration, Reregistration, and Special Review (Rainbow Report), Special Review and Reregistration Division Office of Pesticide Programs U.S. Environmental Protection Agency, 401 M. Street, S.W., Washington, D.C. 20460, Spring 1998
RCRVAB	Russian Chemical Reviws (English Translation). Translation of USKHAB. (Royal Soc. of Chemistry, Distribution Centre, Blackhorse Rd., Letchworth, Herts SG6 1HN, UK) V.29-1960-
SRTCAC	Science Reports of the Research Institutes, Tohoku University, Series C: Medicine. (Tohoku University, Research Institute for Tuberculosis and Cancer, 4-1 Seiryomachi, Sendai, Japan) V.1- 1949-
TOXID9	Toxicologist. (Soc. of Toxicology, Inc., 475 Wolf Ledge Parkway, Akron, OH 44311) V.1-1981-
TXAPA9	Toxicology and Applied Pharmacology. (Academic Press, Inc., 1 E. First St., Duluth, MN 55802) V.1- 1959-
UCDS**	Union Carbide Data Sheet. (Union Carbide Corp., 39 Old Ridgebury Rd., Danbury, CT 06817)

Used as lubricant and corrosion inhibitor and in production of shampoos, creams and soaps

NIOSH PROFILE (ALKANOLAMINES), SRC, 5/81

FDA-over the counter drug

RTECS Compound Description:

Agricultural Chemical

Tumorigen

Mutagen

Human Data

Primary Irritant

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