



INTERNAL CORRESPONDENCE

UNION CARBIDE CORPORATION

270 PARK AVENUE, NEW YORK, NEW YORK 1001

To (Name) GOHC
Division (See Distribution List)
Location
Floor Number

Date October 9, 1979

Originating Dept. HS&EA

Floor Number 22

Copy to COHPC

Answering letter date

Subject Carcinogens

Enclosed is the most recent C&P updated list of potential carcinogens which you may have received from C&P in a separate mailing.

Note that the only addition from the last January 22, 1979 list is 2-Ethylhexyl Acrylate, on Page 4. The C&P Standard or Guideline for this Acrylate is 5 PPM.

Please recall that in the minutes of the 12/7-8/77 GOHC meeting, we all agreed that if one UCC Division uses a given standard to protect against a potential carcinogen, other Divisions of UCC should use the same standard. This list then represents the mandated levels for all UCC Divisions.

Also, please note that in most cases these levels are the same as those mandated by our Teratology Committee.

Enclosure
TWC:cjm

T.W. Carmody
T.W. Carmody

UCC 100380

**UNION
CARBIDE**

INTERNAL CORRESPONDENCE

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OCT 03 1979

CHEMICALS AND PLASTICS

To (Name) OPERATIONS MANAGERS
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H. L. HAYNES
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270 PARK AVENUE, NEW YORK, NEW YORK 100

Date September 27, 1979

Originating Dept. SHARE

Floor Number 21

Answering letter date

Subject Updated C&P List of
Potential Carcinogens

CC: SEE ATTACHED DISTRIBUTION
 LIST

Attached is an updated list of substances of interest to C&P that are regarded as potential carcinogens and therefore should be handled accordingly. This replaces the previous list issued with the letter dated January 22, 1979.

The addition to the previous list is 2-ethylhexyl acrylate. This is a result of the skin painting test completed at Carnegie-Mellon Institute. Skin contact should be avoided.

Permissible exposure limits and other information regarding these substances are contained in a separate detail document which will be sent to all Industrial Hygiene and Medical Departments, Environmental Protection Coordinators, Safety/Health Coordinators, Technology Managers, and other appropriate managers for all locations and functions. Others with a need to know may obtain a copy by contacting Mr. W. E. Whitehurst, Technology Manager Safety and Health at the South Charleston Technical Center.



E. Q. Hull, M.D.
 Medical Director
 Chemicals and Plastics



R. Van Mynen
 SHARE
 Operations Manager
 Chemicals and Plastics

EQH/RVM/mcc
 Attachment

UCC 100381

C&P SAFETY AND HEALTH TEAM
LISTING OF POTENTIAL CARCINOGENS
SEPTEMBER 25, 1979

2-Acetylaminofluorene (CX)	Dimethyl sulfate (B)	4-Nitrodiphenyl (AX)
Acrylonitrile (AX)	4-Dimethylaminoazobenzene (CX)	2-Nitropropane (C)
4-Aminodiphenyl (AX)	1,4-Dioxane (C)	Nitrosoamines (C)
Asbestos (AX)	Epichlorohydrin (C)	N-Nitrosodimethylamine (CX)
Benzene (AX)	Epoxy Resin ERL 2774 (C)	Perchloroethylene (C)
Benzidine (AX)	(Diglycidyl Ether of Bisphenol A)	(Tetrachloroethylene)
Benzidine-Derived Dyes (C)	Epoxy Resin ERL 4205 (C)	Polychlorinated
Bis-2-chloroethyl ether	(Bis(2,3-Epoxypropyl) Ether)	Biphenyls (B,C)
(Dichloroethyl	Epoxy Resin ERL 4206	Polycyclic Aromatic
Ether: CHLOREX) (C)	(Vinylcyclohexene	Hydrocarbons
Bis-2-chloroethyl-2-	dioxide) (B)	(Fuel Oil Residues;
naphthylamine (A)	Epoxy Resin ERL 4234	Quench Oil, pitches;
Bis-chloromethyl ether (AX)	3-(3',4'-Epoxypropyl)	tars, Dripolenes A,
Carbon tetrachloride (B)	8,9-epoxy-2,4-dioxaspiro	B, and C. Resin B
Chloroform (C)	(5,5-undecane) (C)	Condensates) (A)
Chloroprene (B)	Ethylene dibromide (C)	β -Propiolactone (BX)
Chromates of Lead & Zinc (B)	Ethylene dichloride (C)	Toluene-2,4-diamine (C)
Chromium-6 Carcinogenic	Ethylene Thiourea (C)	Trichloroethylene (C)
Compounds (including	Ethyleneimine	Vinyl Chloride (AX)
bis-Triphenyl Silyl	(Aziridine (CX)	
Chromate) (B)	2-Ethylhexyl Acrylate (C)	
Di-sec-butoxyacetophenone (C)	Methylene Dianiline (C)	
3,3'-Dichlorobenzidine	Methyl chloromethyl ether (AX)	
(and salts) (CX)	α -Naphthylamine (BX)	
Diethyl sulfate (C)	β -Naphthylamine (AX)	
Diisopropyl sulfate (C)	Neopentyl glycol	
	diacrylate (C)	
	Nickel, Inorganic (B)	

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A = Known Human Carcinogen
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C&P SAFETY AND HEALTH TEAM
LISTING OF POTENTIAL CARCINOGENS

Page 1 of 7

SUBSTANCE	CATEGORIES*	EXPOSURE LIMITS		
		ACGIH TLV	NIOSH PROPOSAL OR OSHA STANDARD**	C/P STANDARD OR GUIDELINE
2-Acetylaminofluorene	CX	---	NE (c)	NE; cf Regulation 29 CFR 1910.1014
Acrylonitrile***	AX	20 ppm	2 ppm (d) 4 ppm (b)	2 ppm cf Regulation 29 CFR 1910.1045
4-Aminodiphenyl	AX	NE	NE (c)	NE; cf Regulation 29 CFR 1910.1011
Asbestos***	AX	5 fibers/cc > 5 μ m long	2 fibers/cc > 5 μ m long (c)	2 fibers/cc > 5 μ m long cf Regulation 29 CFR 1910.1001
Benzene***	AX	10 ppm	1ppm OSHA STD. Stayed by Court. Permanent Standard is 10 ppm	1 ppm; NSOOC cf Regulation 29 CFR 1910.1028
Benzidine	AX	NE	NE (c)	NE; cf Regulation 29 CFR 1910.1010
Benzidine-Derived Dyes	C	---	---	NE
Bis-2-chloroethyl ether (Dichloroethyl Ether: CHLOREX)***	C	5 ppm	---	0.1 ppm

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 a = NIOSH Criteria Document
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 d = OSHA Emergency Temporary Standard

**** Possible contaminant in C and P
 products or processes

NSOOC = No skin or oral contact
 NE = No exposure or contact by any route

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C&P SAFETY AND HEALTH TEAM

LISTING OF POTENTIAL CARCINOGENS

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		ACGIH TLV	NIOSH PROPOSAL OR OSHA STANDARD**	C/P STANDARD OR GUIDELINE
Bis-2-chloroethyl-2-naphthylamine	A			NE
Bis-chloromethyl ether	AX	1 ppb	NE (c)	NE; cf Regulation 29 CFR 1910.1008
Carbon tetrachloride***	B	5 ppm	2 ppm (b) 10 ppm (c)	2 ppm
Chloroform***	C	10 ppm	2 ppm (a) 50 ppm (c)	2 ppm
Chloroprene	B	10 ppm	1 ppm (a) 25 ppm (c) Ceiling	1 ppm
Chromates of Lead and Zinc (as Cr)	B	0.05 mg/m ³ (as Cr)	---	0.05 mg/m ³ (as Cr)
Chromium-6 Carcinogenic Compounds (Including Bis-Triphenyl Silyl Chromate***)	B	---	1 µg/m ³ (a)	1 µg/m ³
Di-Sec-butoxyacetophenone***	C	---	---	To be determined, NSOOC

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C&P SAFETY AND HEALTH TEAM
LISTING OF POTENTIAL CARCINOGENS

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SUBSTANCE	CATEGORIES*	EXPOSURE LIMITS		
		ACGIH TLV	NIOSH PROPOSAL OR OSHA STANDARD**	C/P STANDARD OR GUIDELINE
3-3'-Dichlorobenzidine (and salts)	CX	---	NE (c)	NE; cf Regulation 29 CFR 1910.1007
Diethyl sulfate***	C	---	---	1 ppm; NSOOC (Hull/Montagna, 9/28/77)
Diisopropyl sulfate****	C	---	---	1 ppm; NSOOC
Dimethyl sulfate	B	0.1 ppm	1 ppm (c)	0.1 ppm; NSOOC
4-Dimethylaminoazobenzene	CX	---	NE (c)	NE; cf Regulation 29 CFR 1910.1015
1,4-Dioxane***	C	25 ppm	1 ppm (a) Ceiling	cf letter Hull/Montagna, 12/16/77
Epichlorohydrin***	C	5 ppm	0.5 ppm, 2 mg/m ³ (a) 5 ppm (c)	0.5 ppm
Epoxy Resin ERL 2774*** (Diglycidyl Ether of Bisphenol A; 2,2-Bis(4-Glycidyloxyphenyl)propane)	C	---	---	10 ppm; NSOOC

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C&P SAFETY / HEALTH TEAM
LISTING OF POTENTIAL CARCINOGENS

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SUBSTANCE	CATEGORIES*	EXPOSURE LIMITS		
		ACGIH TLV	NIOSH PROPOSAL OR OSHA STANDARD**	C/P STANDARD OR GUIDELINE
Epoxy Resin ERL 4205*** (Bis(2,3-Epoxy cyclopentyl) Ether)	C	---	---	10 ppm; NSOOC
Epoxy Resin ERL 4206*** (Vinylcyclohexene dioxide)	B	10 ppm	---	10 ppm; NSOOC
Epoxy Resin ERL 4234*** 3-(3',4'-Epoxy cyclohexyl) 8,9-epoxy-2,4-dioxaspiro(5,5-undecane)	C	---	---	10 ppm; NSOOC
Ethylene dibromide	C	NE	0.1 ppm, /mg/m ³ (a)	0.1 ppm
Ethylene dichloride***	C	10 ppm	1 ppm (a)	5 ppm
Ethyleneimine**** (Aziridine)	CX	0.5 ppm	NE (c)	NE; cf Regulation 29 CFR 1910.1012
Ethylene Thiourea	C	---	---	NE (Hull, 4/12/78)
2-Ethylhexyl Acrylate	C	---	---	5 ppm (Crisorio, Hull, VanMynen 11/29/78)
Methyl chloromethyl ether	AX		NE (c)	NE; cf Regulation 29 CFR 1910.1006

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9/25/

C&P SAFETY AND HEALTH TEAM
LISTING OF POTENTIAL CARCINOGENS

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SUBSTANCE	CATEGORIES*	EXPOSURE LIMITS		
		ACGIH TLV	NIOSH PROPOSAL OR OSHA STANDARD**	C/P STANDARD OR GUIDELINE
Methylenedianiline	C	---	---	NSOOC (Hull, 3/4/76)
α -Naphthylamine****	BX	--	NE (c)	NE; cf Regulation 29 CFR 1910.1004
β -Naphthylamine	AX	NE	NE (c)	NE; cf Regulation 29 CFR 1910.1009
Neopentyl glycol diacrylate***	C	---	---	NSOOC
Nickel, Inorganic***	B	---	15 $\mu\text{g}/\text{m}^3$ (a); 1 mg/m^3 (c)	.1 mg/m^3 ; cf 29 CFR 1910.1000
4-Nitrodiphenyl	AX	NE	NE (c)	NE; cf Regulation 29 CFR 1910.1003
2-Nitropropane	C	25 ppm, ceiling	AE (b)	To be determined
Nitrosoamines****	C	---	---	NSOOC

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NSOOC = No skin or oral contact
 NE = No exposure or contact by any route
 AE = Avoid exposure

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9/25/79

C&P SAFETY AND HEALTH TEAM

LISTING OF POTENTIAL CARCINOGENS

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SUBSTANCE	CATEGORIES*	EXPOSURE LIMITS		
		ACGIH TLV	NIOSH PROPOSAL OR OSHA STANDARD**	C/P STANDARD OR GUIDELINE
N-Nitrosodimethylamine ****	CX		NE (c)	NE; cf Regulation 29 CFR 1910.1016
Perchloroethylene*** (Tetrachloroethylene)	C	100 ppm	50 ppm (a) 100 ppm (c)	50 ppm
Polychlorinated Bi-phenyls ****	B, C	1 mg/m ³ 42% Cl 0.5 mg/m ³ 54% Cl	1 mg/m ³ 42% Cl (c) 0.5 mg/m ³ 54% Cl (c) 1 µg/m ³ (b)	1 µg/m ³
β-Propiolactone	BX	0.5 ppm	NE (c)	NE; cf Regulation 29 CFR 1910.1013
Polycyclic Aromatic Hydrocarbons*** (Fuel Oil Residues; Quench Oil, pitches, tars, Dripolenes A, B, and C. Resin B Condensates)	A	200 µg/m ³	100 µg/m ³ (a)	100 µg/m ³ , cf letters Hull/Guest, 3/3/75 Hull/Montagna, 10/76 Hull/Montagna, 12/21/77 AE

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9/25/77

C&P SAFETY AND HEALTH TEAM

LISTING OF POTENTIAL CARCINOGENS

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SUBSTANCE	CATEGORIES*	EXPOSURE LIMITS		
		ACGIH TLV	NIOSH PROPOSAL OR OSHA STANDARD**	C/P STANDARD OR GUIDELINE
Toluene-2,4-diamine***	C	---	---	0.1 ppm; NSOOC (01in)
Trichloroethylene***	C	100 ppm	25 ppm (b) 100 ppm (c)	25 ppm (Hull/Montagna, 5/17/78)
Vinyl chloride***	AX	5 ppm	1 ppm (c) 1 ppm Ceiling (b)	1 ppm; cf Regulation 29 CFR 1910.1017

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