US EPA RECORDS CENTER REGION 5
487351

ID: Insufficient Data
NAD: No Available Data

Chemical Name	CAS #	CMR Listed	Acute Toxicity: Terrestrial Life LD_{50}	Acute Toxicity: Aquatic Data	Carcinogen	Teratogen	Mutagen	Chronic Effects	Environmental Fate
Styrene	100-42-5	yes	oral rat 1000-5000 mg/kg inhal. mouse LC_{50} 11,800-21,000 mg/m^3	96 hr LC_{50} fish 25-65 mg/l 48 hr EC_{50} Daphnia 23 mg/l	Potential Animal	ID	Potential	Neurological & physical disturbances; embryo toxicity	
Benzene	71-43-2	yes	oral 3000-5700 mg/kg	96 hr LC_{50} juvenile Rainbow trout 5.3 mg/l 48 hr EC_{50} 265 mg/l	Human Positive	Confirmed via inhalation	ID	Affects blood forming organs w/resulting blood disorders; neurol. disorders; embryo toxicity	Calculated BCF: 5.21
Hexachlorobenzene	118-74-1	yes	oral 1700-10,000 mg/kg	96 hr LC_{50} fish 2.3-22 mg/l	Animal Positive	ID	ID	Kidney & ovarian follicle degeneration	Does not degrade in the environ. S.S. BCF: 22,000
Chloroform	67-66-3	yes	oral 120-1750 mg/kg inhal. LC_{50} 28,000 ug/l	96 hr LC_{50} fish 15.1-75.0 mg/l 48 hr EC_{50} Daphnia 28.9 mg/l	Animal Positive	Potential via inhalation - ID via oral	ID	Liver & kidney damage by chronic exposures	S.S. BCF: 6
Tetrachloroethylene	127-18-5	yes	oral rat 4460 mg/kg inhal. LC_{50} 35,000 mg/m^3	96 hr LC_{50} fish 4.8-18.4 mg/l 48 hr EC_{50} Daphnia 18 mg/l	Potential Animal	ID	ID	Liver toxin Kidney damage	BCF: 49
Hexachlorobutadiene	87-68-3	yes	oral 64-350 mg/kg dermal 1206-4330 mg/kg	96 hr LC_{50} fish 0.09-0.32 mg/l	Potential Animal	ID	ID	Kidney damage	Adsorbs to soil & humus particles in water

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ID: Insufficient Data
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Chemical Name	CAS #	CMR Listed	Acute Toxicity: Terrestrial Life LD_{50}	Acute Toxicity: Aquatic Data	Carcinogen	Teratogen	Mutagen	Chronic Effects	Environmental Fate
Bis (2-ethylhexyl) phthalate	117-81-7	yes	oral 30,600-33,900 mg/kg	48 hr EC_{50} Daphnia 11 mg/l	Animal Positive	Potential	ID	Testicular damage; liver & kidney effects	
Trichloroethylene	79-01-6	yes	oral 2800-5900 mg/kg inhal. LC_{50} 42,960-263,000 mg/m^3	96 hr LC_{50} fish 4.8-18.4 mg/l 48 hr EC_{50} Daphnia 8.5-17.7 mg/l	Potential Animal	ID	ID	CNS depression; liver & kidney damage	Rapidly volatilized from water, photo-oxidized in atmos.
Vinyl Chloride	75-01-4	yes	oral rat 500 mg/kg	ID	Human Carcinogen	ID	Potential	Kidney damage; embryo toxicity via inhalation	Highly volatile in wtr; hydrolyzes then decomposes in atmos.
Methylene Chloride	75-09-2	no	oral 2000-2136 mg/kg inhal. LC_{50} 15,000 ppm	96 hr LC_{50} fish 193-224 mg/l 48 hr EC_{50} Daphnia 224 mg/l	Potential Animal	ID	Potential	Elevated carboxyhemoglobin in blood; central nervous system depression	Volatiliz. from wtr with photodegradation
1,2-Dichloroethane	107-06-2	yes	oral 965 mg/kg dermal 4620 mg/kg inhal. LC_{50} 4050-48,600 mg/m^3	96 hr LC_{50} fish 118-550 mg/l 48 hr EC_{50} Daphnia 218 mg/l	Animal Positive	ID	Potential	Blood clotting disorders; liver & kidney damage	
Toxaphene	8001-35-2	yes	oral 80-90 mg/kg dermal 1075 mg/kg inhal. LC_{50} 20 mg/m^3 (2 hr)	96 hr LC_{50} fish all <1.0 mg/l	Animal Positive	ID	Potential	Liver damage; toxic to dams during pregnancy	half-life in soil 4-13 yrs. BCF: 20,733

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Chemical Name	CAS #	CMR Listed	Acute Toxicity: Terrestrial Life LD_{50}	Acute Toxicity: Aquatic Data	Carcinogen	Teratogen	Mutagen	Chronic Effects	Environmental Fate
Benzo(a) pyrene	50-32-8	no	ID	ID	Animal Positive	ID	Potential	Damage to regenerative tissues	
Benzo(a) anthracene	56-55-3	no	ID	ID		ID	ID	Damage to regenerative tissue	
Cadmium	7440-43-9	yes	oral 175-225 mg/kg	for various salts 96 hr LC_{50} fish <1.0 mg/l	ID	ID	ID	Kidney is the target organ for toxicity	
Arsenic	7440-38-2	yes	oral Arsenate (V) rats & mice approx. 100 mg/kg oral Arsenate (III) rats & mice approx 10 mg/kg	96 hr LC_{50} fish 13.3-42 mg/l	Human Carcinogen	Potential	Potential	Peripheral vascular & neurological disorders; hyper-pigmentation & keratoses	
Chromium	7440-47-3	yes	Varies due to chemical state	Hexavalent 96 hr LC_{50} fish 37-133 mg/l	Carcinogenic via inhalation	ID	(Hex) Potential (Tri) ID		
Beryllium	7440-41-7	yes	oral mice & rats approx 100 mg/kg as fluoride	96 hr LC_{50} fish (soft water) <1.0 mg/l	Animal Carcinogen via inhal.; limited human data	ID	ID	Lung disease	
Nickel	7440-02-1	yes	oral (acetate) 350-410 mg/l (nitrate) 1620 mg/kg	96 hr LC_{50} fish (soft) 1-10 mg/l (hard) 10-100 mg/l	Animal Carcinogen via inhal.; human nasal & lung carcinogen	ID	ID	Dermatitis; inhibits spermatogenesis; lung damage	

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Chemical Name	CAS #	CMR Listed	Acute Toxicity: Terrestrial Life LD_{50}	Acute Toxicity: Aquatic Data	Carcinogen	Teratogen	Mutagen	Chronic Effects	Environ-mental Fate
Toluene	108-88-3	yes	oral rat 2598-7530 mg/kg dermal rabbit 12,200 mg/kg	96 hr LC_{50} fish 6.4-22.8 mg/l	ID	ID	ID	Dermatitis; decreased growth rate; narcotic	BCF: 10.7 (est)
Xylene	1330-20-7	yes	oral rat 1600-8600 mg/kg inhal rat LC_{50} 29500-28000 mg/m^3	96 hr LC_{50} fish 21-37 mg/l	NAD	Potential	ID	Tissue irritant/ dermatitis; menstrual disorders; liver & lung effects	
Naphthalene	91-20-3	no	oral rat 1100-2400 mg/kg dermal rat >2500 mg/kg	96 hr LC_{50} Salmon 1.37-1.84 mg/l 48 hr EC_{50} Daphnia 8.6 mg/l	ID	ID	ID	Cataract formation; alterations in blood cells; anemia; jaundice	BCF: 10.5 (est)
1,2-Dichloro-propane	78-87-5	no	oral rat 1900-2200 mg/kg mouse 860 mg/kg dog 5000 mg/kg dermal rabbit 10,200 mg/kg	96 hr LC_{50} fish 139-320 mg/l 48 hr EC_{50} Daphnia 52.5 mg/l	ID	ID	ID	CNS disfunction; lung, liver, kidney damage	Half-life in water 7 days
Pyrene	129-00-0	no	oral mouse 9400 mg/kg	NAD	ID	ID	ID	ID	S.S. BCF: 2800
Anthracene	120-12-7	no	ID	ID	ID	NAD	ID	NAD	Moves thru environ. by sorption; is degraded by microbes
Phenanthrene	85-01-8	no	oral mouse 700 mg/kg	96 hr LC_{50} fish <1-2 mg/l	ID	NAD	ID	ID	

):· Insufficient Data
): No Available Data

mical Name	CAS #	CMR Listed	Acute Toxicity: Terrestrial Life LD_{50}	Acute Toxicity: Aquatic Data	Carcinogen	Teratogen	Mutagen	Chronic Effects	Environ-mental Fate
n-butyl halate	84-74-2	yes	oral rat 23 g/kg dermal rabbit 20 ml/kg	96 hr LC_{50} fish 0.7-6.5 mg/l	ID	ID	ID	Testicular atrophy; liver & kidney lesions	Biodegrades in soil and water
d	7439-92-1	yes	NAD	96 LC_{50} fish (soft) 1-7.3 mg/l (hard) 471-482 mg/l	ID	ID	NAD	CNS changes; fetotoxic; affects blood forming organs	BCF: 49
c	7440-66-6	yes	oral rat 350 mg/kg	96 hr LC_{50} fish 0.87-12.5 mg/l	ID	ID	ID	High chronic doses can cause bone demineralization, kidney damage	BCF: 47
cury	7439-97-6	yes	oral rat (Acetate) 76 mg/kg mouse 62 mg/kg mouse (chloride) 10 mg/kg	96 hr LC_{50} fish 0.024-0.280 mg/l	ID	Potential	ID	Neuronal damage; severe irreversible CNS effects	Bacterial action converts inorganic to more toxic organic form
,nesium	7439-95-4	no	NAD	NAD	ID	ID	ID		
›per	7440-50-8	yes	oral (chloride) rat 120 mg/kg (oxide) rat 470 mg/kg (sulfate) rat 300 mg/kg	(ion) 96 hr LC_{50} fish 0.43 mg/l (Acetate) 26 ppm	ID	ID	ID	Anorexia; jaundice; dermatitis	
l lcium	7440-70-2	no	NAD	NAD	NAD	NAD	NAD	Kidney stones	

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NAD: No Available Data

Chemical Name	CAS #	CMR Listed	Acute Toxicity: Terrestrial Life LD_{50}	Acute Toxicity: Aquatic Data	Carcinogen	Teratogen	Mutagen	Chronic Effects	Environmental Fate
Potassium	7440-09-7	no	NAD	96 hr LC_{50} fish 80 ppm	NAD	NAD	NAD	Excessive tissue levels cause physiological disfunction	
Sodium	7440-23-5	no	NAD	NAD	NAD	NAD	NAD	Hypertension	
Iron	7439-89-6	no	Anhydrous ferric chloride oral 400-900 mg/kg	NAD	ID	NAD	NAD	Accumulation of pigments in lungs after inhal. exposures	
Fluchloralin	33245-39-5	yes	oral mouse 750 mg/kg rat 1550 mg/kg	96 hr LC_{50} fish 12-16 ug/l 48 hr EC_{50} Daphnia 129.2 ug/l	NAD	ID	NAD	NAD	Half-life in heavy soil 65 days
Bis (2-chloro isopropyl) ether	108-60-1	no	oral rat 240 mg/kg	NAD	ID	NAD	ID	Liver and kidney damage	BCF: 56.2
Fluorene	86-73-7	no	NAD	NAD	NAD	NAD	NAD	NAD	
Cis-trans-1,2-dichloroethylene	156-59-2 156-60-5	no	ID	trans- 96 hr LC_{50} fish 135 mg/l 48 hr EC_{50} Daphnia 218 mg/l	ID	ID	ID	ID	
2,4-Dimethylphenol	105-67-9	no	oral mouse 809 mg/kg oral rat 3200 mg/kg dermal mouse 1040 mg/kg	48 hr EC_{50} D. magna 2.12 mg/l 96 hr LC_{50} fish 7.8-16.8 mg/l	ID	NAD	NAD	Early life stage test w/fathead minnows = 2.2 ug/l (lethal)	BCF: 150 in bluegill; T 1/2 in bluegill = 1 day

ID: Insufficient Data
NAD: No Available Data

Chemical Name	CAS #	CMR Listed	Acute Toxicity: Terrestrial Life LD_{50}	Acute Toxicity: Aquatic Data	Carcinogen	Teratogen	Mutagen	Chronic Effects	Environmental Fate
Phenol	108-95-2	no	oral rat 340-530 mg/kg dermal rat 670-2500 mg/kg human lethal doses 140-430 mg/kg other animals oral 100-600 mg/kg	LC_{50} D. magna 91-100 mg/l 96 hr LC_{50} rainbow trout 5-11.6 mg/l fathead minnow LC_{50} 24-67.5 mg/l bluegill LC_{50} 1.5-28 mg/l	ID ID	NAD NAD	ID ID	Early life stage test in fathead minnows = 2.6 mg/l (lethal)	Not persistent; readily biodegraded
Ethylbenzene	100-41-4	no	oral rat 3500, 4728 mg/kg skin rabbit 15,415 mg/kg inhal. rat 4000 ppm (4 hrs)	48 hr EC_{50} D. magna = 75 mg/l 96 hr LC_{50} goldfish = 94.4 mg/l 96 hr LC_{50} fathead minnow = 45.3 mg/l 96 hr LC_{50} bluegill	NAD	NAD	NAD	Kidney & liver effects; skin irritation; dermatitis	Calculated BCF: 37.5 (AWQC)
Fluoranthene	206-44-0	no	oral rat 2000 mg/kg dermal rat 3180 mg/kg (24 hr contact)	48 hr EC_{50} D. magna = 325 mg/l 96 hr LC_{50} bluegill = 3.98 mg/l	Cocarcinogen	NAD	ID		Calculated BCF: 1,150 (AWQC)
3,4-Benzofluoranthene	205-99-2	no	NAD	NAD	Potential Animal Carcinogen	NAD	NAD	Tumors	Estimated steady state BCF: 28,200
Chrysene	218-01-9	no	NAD	NAD	ID	NAD	ID	Tumors	BCF: 11,700
1,1-Dichloroethylene	75-35-4	no	oral rat 1500-2500 mg/kg inhal. rat LC_{50} 4 hrs 500-15000 ppm oral mice 200 mg/kg	48 hr EC_{50} D. magna 11.6 and 79.0 mg/l	Suspect Carcinogen	ID	ID	Liver & kidney damage	NAD

ID: Insufficient Data
NAD: No Available Data

Chemical Name	CAS #	CMR Listed	Acute Toxicity: Terrestrial Life LD_{50}	Acute Toxicity: Aquatic Data	Carcinogen	Teratogen	Mutagen	Chronic Effects	Environmental Fate
Acenaphthene	83-32-9	no	oral LD_{50} rat 10 g/kg oral LD_{50} mouse 2.1 g/kg	48 hr EC 50, D. magna = 41.2 mg/l 96 hr LC_{50} bluegill = 1.7 mg/l	NAD	NAD	NAD	Liver, kidney, lung, blood & glancular effects	Measured steady state BCF: 387
Benzo(k) Fluoranthene	207-08-9	no	NAD	NAD	Potential animal carcinogen	NAD	NAD	Tumors	Estimated steady state BCF: 28,200
2-Nitrophenol	88-75-5	no	oral rat 2830 mg/kg oral mouse 1300 mg/kg	NAD	NAD	NAD		Colitis, enteritis, gastritis, neuritis, spleen hyperplasm	NAD
4-Nitrophenol	100-02-07	no	oral rat 350 mg/kg oral mouse 470 mg/kg	LC_{50} D. magna 8,396 ug/l & 21,900 ug/l LC_{50} bluegill 8.280 ug/l LC_{50} fathead minnows 60,500 ug/l	ID	NAD	ID	Same as above	NAD
Antimony	7440-36-0	no	antimony tr. fluoride oral mouse 804 mg/kg	D. magna ant. potassium tatrate EC_{50} 9000 ug/l Fathead minnow, antimony trichloride LC_{50} 21,900 ug/l	ID	ID	ID		

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NAD: No Available Data

Chemical Name	CAS #	CMR Listed	Acute Toxicity: Terrestrial Life LD_{50}	Acute Toxicity: Aquatic Data	Carcinogen	Teratogen	Mutagen	Chronic Effects	Environmental Fate
Thallium	7440-28-0	no	minimum lethal does for humans 10-15 mg/kg Thallium Acetate rat oral 18-29 mg Tl/kg dog oral 10-20 mg Tl/kg rabbit oral 12-19 mg Tl/kg Thallic Oxide rat oral 9-20 mg Tl/kg dog oral 20-30 mg Tl/kg rabbit oral 10-30 mg Tl/kg	D. magna 48 hr EC_{50} = 2180 & 910 ug/l fathead minnow 96 hr LC_{50} = 1800 ug/l bluegill 96 hr LC_{50} = 132,000 & 121,000 ug/l	ID	ID	ID	Terrestrial life; hair loss & effects on nervous system	
Tin	7440-31-5	no	oral rat diethyl tin diiodide = 100 mg/kg dibutylin oxide = 45 mg/kg trimethyltin sulfate = 30 mg/kg triphenyltin chloride = 190 mg/kg	NAD	ID	ID	ID	ID	ID
Silver	7440-22-4	no	humans - ingestion of 10g silver nitrate is usually fatal; toxicity of silver compds is moderate	fathead minnow 3.9 ug/l rainbow trout 28 ug/l D. magna 0.25 ug/l	ID	ID	ID	In humans, argyria	Biocond. of Ag in bluegills exposed to Ag nitrate for 28 days
Cyanide	7440-22-4	no	humans 1-3 mg/kg	freshwater fish 20-200 ug/l	NAD	NAD	NAD	No effects	NAD

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NAD: No Available Data

Chemical Name	CAS #	CMR Listed	Acute Toxicity: Terrestrial Life LD_{50}	Acute Toxicity: Aquatic Data	Carcinogen	Teratogen	Mutagen	Chronic Effects	Environmental Fate
Vanadium	7440-62-2	no	oral mouse 130 mg/kg for vanadium trioxide oral mouse 23 mg/kg for vanadium pentoxide & vanadium trichloride	NAD	NAD	NAD	NAD	Due to inhal.- acute inflammation of lung tissue & action on a variety of enzyme systems	NAD
Boron	7440-42-8	no	oral mouse 2000 mg/kg	NAD	NAD	NAD	NAD	NAD	NAD
Manganese	7439-96-5	no	low order of acute toxicity	NAD	NAD	NAD	NAD	Progressive deterioration of the CNS	NAD
Cobalt	7440-48-4	no	oral rat cobaltous oxide 1700 mgCo/kg oral mouse cobaltous oxide 800 mg/kg	NAD	NAD	NAD	NAD	Goiter, decreased thyroid function; increased heart rate; dermatitis; lung inflammation	NAD
Barium	7440-39-3	no	BaCl, oral, humans = 550-600 mg of barium (0.8-0.9g of BaCl)	NAD	NAD	NAD	NAD	Myeloid hyperplasm of spleen, liver & bone marrow; blood changes; stimulation of smooth muscle; paralysis of CNS	NAD
Aluminum	7429-90-5	no	relatively non-toxic	NAD	NAD	NAD	NAD	Retarded growth & metabolic disturbances in animals	NAD

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TABLE 1
MDNR - ORGANIC/INORGANIC WATER SAMPLE ANALYSES
BASF WYANDOTTE NORTH AND SOUTH WORKS
Wyandotte, Michigan

Parameter (ug/1)	Site #1	Site #2	Site #3	Site #4	Site #5	[illegible] South Works Site #6	North and South Works Site #7	South Works Site #8
Styrene	730				45			
Benzene	920	13		1100->200,000	2300			
Toluene	1900-8000			40,000	610			
Xylene				750-60,000	400			
HCB	0.29			0.25			0.13-29	0.48
Naphthalene				21			1300	
Phenanthrene							170	
Fluorene							400	
CHCl=CHCl							4-20,000	
TCE							2->50,000	
$CH_2Cl-CH_2Cl-CH_3$						TR	TR-260	
$CHCl_3$	4-100							31
PCE							15,000	
HCBD	0.10						0.15-380	0.15
DISS CR	<50	<50-550	<50	120-250	<50	<50	<50	<50
CU	<20	100	50-300	<50	<50	20	<20-430	<20-25
NI	<50	<50	<50	70-100	<50	130-650	<50-60	<50
PB	<50-60	<50	<50	160-200	<50	<50	<50-110	<50
ZN	<50-3900	1400	430	180-4400	<50	1100	190-3100	50-390
CD	<20	<20	<20	<20	<50	<20	<20	<50
Hg	<1					1600-7500	<1	<1
CA	23-340		85					
MG	<1-9		4					
NA	27-160		4800					
K	<1.9-190		350					
FE	<100-200		<100-4300	18,000-22,000				
Phenol	7NA-8NA	32NA-240NA	2NA-660NA			150PT-310PT	10NA-170PT	3NA-16NA

NA - Analytical method not approved by lab.
PT - Preservation Technique not used.
TR - Trace present.

TABLE 2
MDNR - ORGANIC/INORGANIC SEDIMENT ANALYSES
BASF WYANDOTTE NORTH AND SOUTH WORKS
Wyandotte, Michigan

	Parameter	Site #1	Site #2	Site #3	Site #4	Site #5	Site #6	Site #7	Site #8
ug/l	Naphthalene				550				
	Anthracene				10			70	
	Phenanthrene				37			420-21,000	
	HCB							780-430,000	
	Fluorene							48,000->109,000	
	Benzoanthrene							660	
	Pyrene							1100	
	HCBD							1200-800,000	
ug/kg	CD		<2	<2			<2	<2	<2
	CR		18	18			14-20	20	11
	CU		27	25			13-20	16	6
	NI		18	15			7-20	13	7
	PB		21	25			<5-40	<5	<5
	ZN		40	120			10-60	6	15
	HG						<5-16	<	<.5

TABLE 3
U.S. EPA INORGANIC CHEMICALS
BASF WYANDOTTE
Wyandotte, Michigan
Water

Parameter	Site #1	Site #3	Site #5	Site #7	Site #6
Aluminum	750	8100-15,900	800	1800	
Chromium	<10	<20-30	<10	<10	
Barium	120	20	90	2110	
Beryllium	<2	<4-2	<2	<2	
Cadmium	<5	<10	<5	<5	
Cobalt	<10	<20-40	<10	<10	
Copper	<20	200-380	40	40	
Iron	440	4120-5140	11,040	13,000	
Lead	120	<80-80	<40	<40	
Nickel	<20	20-220	<20	<20	
Manganese	<10	90-120	160	70	
Zinc	5520	440-4040	2650	4120	
Boron	30	40-500	920	150	
Vanadium	<10	180-1430	<10	<10	
Calcium	255,000	22,300-37,000	914,000	21,600,000	
Magnesium	200	2900-2920	754,000	1400	
Sodium	137,000	3,640,000-19,200,000	6,240,000	12,300,000	
Arsenic	<10	9.2-2000	20	<100	
Antimony	<20	<20	<20	<20	
Selenium	<10	<100	<400	<400	
Thallium	<10	<10	<400	<100	
Mercury	<1	<1	<1	<1	300-2000
Tin	<20	*	<20	<20	
Silver	<20	<40	<20	<20	
Cyanide	0.09	2.2-8.7	0.26	--	
Organic Mercury				<10	100-5000

*Interference

TABLE 4
U.S. EPA ORGANIC CHEMICALS
BASF WYANDOTTE
Groundwater

Parameter (ug/l)	Site #1	Site #2	Site #3	Site #4	Site #5	Site #6	Background Well for Site #7	Site #7	Polyol Pond
2,4-dimethyphenol	4400								
phenol	120		175	260		25		51-65	
naphthalene	12	120		520					
benzene	160-930	16		1100	1100				
ethylbenzene	11-34			12	12				
toluene	>1000-2300			750	750				
1,2 dichloropropane	12							13	
acenaphthene		26							
fluoranthene		23							
benzo(a)anthracene		22							
benzo(a)pyrene		14							
3,4 benzofluoranthene		13							
benzo(k)fluoranthene		13							
chrysene		22							
anthracene		44							
fluorene		20							
phenanthrene		44							
pyrene		17							
bis (2-ethylhexyl-- phthalate						19			1.0
bis (2-chloroisopropyl-- ether			280						
1,2 dichloroethane								12	
chloroform								19	
1,1-dichloroethylene								2600	
1,2-trans-dichloroethylene								29,000	
methylene chloride									
tetrachloroethylene								19,000	
trichloroethylene								320,000	
vinyl chloride								890	
2-nitrophenol			29			45			
4-nitrophenol			61			130			
hexachlorobenzene								140-150	
hexachlorobutadiene								220-240	

TABLE 5
U.S. EPA ORGANIC CHEMICALS
SOILS ON SITE
BASF WYANDOTTE NORTH AND SOUTH WORKS
Wyandotte, Michigan

Parameter (ug/g)	Site #3	Emergency Containment Pond	Drum Pad Site (ppm)
bis (2-ethylhexyl phthalate	ND	12	4.6
d-n-butyl phthalate	ND	48-93	
toluene	ND	9.8-15	
PCB-1242		5.5	
bis-(2-chloroisopropyl ether)	ND	99	
methylene chloride	ND	1.3-5.0	
fluchloralin			940
trifuralin	ND		
phenanthrene/anthracene	ND		7
fluolanthene/pyrene	ND		32
chrysene/benzo(a)anthracene	ND		47.2
benzo(a)pyrene	ND		2.7
nitrosamines	ND		
toxaphene		0.40	

TABLE 1
MDNR - ORGANIC/INORGANIC WATER SAMPLE ANALYSES
BASF WYANDOTTE NORTH AND SOUTH WORKS
Wyandotte, Michigan

Parameter (ug/l)	Site #1	Site #2	Site #3	Site #4	Site #5	Site #6	Site #7	Site #8
Styrene	730				45			
Benzene	920	13		1100->200,000	2300			
Toluene	1900-8000			40,000	610			
Xylene				750-60,000	400			
HCB	0.29			0.25			0.13-29	0.48
Naphthalene				21			1300	
Phenanthrene							170	
Fluorene							400	
CHCl=CHCl							4-20,000	
TCE							2->50,000	
$CH_2Cl-CH_2Cl-CH_3$						TR	TR-260	
$CHCl_3$	4-100							31
PCE							15,000	
HCBD	0.10						0.15-380	0.15
DISS CR	<50	<50-550	<50	120-250	<50	<50	<50	<50
CU	<20	100	50-300	<50	<50	20	<20-430	<20-25
NI	<50	<50	<50	70-100	<50	130-650	<50-60	<50
PB	<50-60	<50	<50	160-200	<50	<50	<50-110	<50
ZN	<50-3900	1400	430	180-4400	<50	1100	190-3100	50-390
CD	<20	<20	<20	<20	<50	<20	<20	<50
Hg	<1					1600-7500	<1	<1
CA	23-340		85					
MG	<1-9		4					
NA	27-160		4800					
K	<1.9-190		350					
FE	<100-200		<100-4300	18,000-22,000				
Phenol	7NA-8NA	32NA-240NA	2NA-660NA			150PT-310PT	10NA-170PT	3NA-16NA

NA - Analytical method not approved by lab.
PT - Preservation Technique not used.
TR - Trace present.

EXHIBIT C

TABLE 2
MDNR - ORGANIC/INORGANIC SEDIMENT ANALYSES
BASF WYANDOTTE NORTH AND SOUTH WORKS
Wyandotte, Michigan

	Parameter	Site #1	Site #2	Site #3	Site #4	Site #5	Site #6	Site #7	Site #8
ug/l	Naphthalene				550				
	Anthracene				10			70	
	Phenanthrene				37			420-21,000	
	HCB							780-430,000	
	Fluorene							48,000->109,000	
	Benzoanthrene							660	
	Pyrene							1100	
	HCBD							1200-800,000	
ug/kg	CD		<2	<2			<2	<2	<2
	CR		18	18			14-20	20	11
	CU		27	25			13-20	16	6
	NI		18	15			7-20	13	7
	PB		21	25			<5-40	<5	<5
	ZN		40	120			10-60	6	15
	HG						<5-16	<	<.5

TABLE 3
U.S. EPA INORGANIC CHEMICALS
BASF WYANDOTTE
Wyandotte, Michigan
Water

Parameter	Site #1	Site #3	Site #5	Site #7	Site #6
Aluminum	750	8100-15,900	800	1800	
Chromium	<10	<20-30	<10	<10	
Barium	120	20	90	2110	
Beryllium	<2	<4-2	<2	<2	
Cadmium	<5	<10	<5	<5	
Cobalt	<10	<20-40	<10	<10	
Copper	<20	200-380	40	40	
Iron	440	4120-5140	11,040	13,000	
Lead	120	<80-80	<40	<40	
Nickel	<20	20-220	<20	<20	
Manganese	<10	90-120	160	70	
Zinc	5520	440-4040	2650	4120	
Boron	30	40-500	920	150	
Vanadium	<10	180-1430	<10	<10	
Calcium	255,000	22,300-37,000	914,000	21,600,000	
Magnesium	200	2900-2920	754,000	1400	
Sodium	137,000	3,640,000-19,200,000	6,240,000	12,300,000	
Arsenic	<10	9.2-2000	20	<100	
Antimony	<20	<20	<20	<20	
Selenium	<10	<100	<400	<400	
Thallium	<10	<10	<400	<100	
Mercury	<1	<1	<1	<1	300-2000
Tin	<20	*	<20	<20	
Silver	<20	<40	<20	<20	
Cyanide	0.09	2.2-8.7	0.26	--	
Organic Mercury				<10	100-5000

*Interference

TABLE 4
U.S. EPA ORGANIC CHEMICALS
BASF WYANDOTTE
Groundwater

Parameter (ug/l)	Site #1	Site #2	Site #3	Site #4	Site #5	Site #6	Background Well for Site #7	Site #7	Polyol Pond
2,4-dimethyphenol	4400								
phenol	120		175	260		25		51-65	
naphthalene	12	120		520					
benzene	160-930	16		1100	1100				
ethylbenzene	11-34			12	12				
toluene	>1000-2300			750	750				
1,2 dichloropropane	12							13	
acenaphthene		26							
fluoranthene		23							
benzo(a)anthracene		22							
benzo(a)pyrene		14							
3,4 benzofluoranthene		13							
benzo(k)fluoranthene		13							
chrysene		22							
anthracene		44							
fluorene		20							
phenanthrene		44							
pyrene		17							
bis (2-ethylhexyl phthalate						19			1.0
bis (2-chloroisopropyl ether			280						
1,2 dichloroethane								12	
chloroform								19	
1,1-dichloroethylene								2600	
1,2-trans-dichloroethylene								29,000	
methylene chloride									
tetrachloroethylene								19,000	
trichloroethylene								320,000	
vinyl chloride								890	
2-nitrophenol			29			45			
4-nitrophenol			61			130			
hexachlorobenzene								140-150	
hexachlorobutadiene								220-240	

TABLE 5
U.S. EPA ORGANIC CHEMICALS
SOILS ON SITE
BASF WYANDOTTE NORTH AND SOUTH WORKS
Wyandotte, Michigan

Parameter (ug/g)	Site #3	Emergency Containment Pond	Drum Pad Site (ppm)
bis (2-ethylhexyl phthalate	ND	12	4.6
d-n-butyl phthalate	ND	48-93	
toluene	ND	9.8-15	
PCB-1242		5.5	
bis-(2-chloroisopropyl ether)	ND	99	
methylene chloride	ND	1.3-5.0	
fluchloralin			940
trifuralin	ND		
phenanthrene/anthracene	ND		7
fluolanthene/pyrene	ND		32
chrysene/benzo(a)anthracene	ND		47.2
benzo(a)pyrene	ND		2.7
nitrosamines	ND		
toxaphene		0.40	