

ATTACHMENT B
SUPPORTING TABLES FOR CALCULATING THE
VCP REMEDIATION GOALS

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**TABLE B-1
VCP REMEDIATION GOALS
PHYSICAL/CHEMICAL DATA**

| CONTAMINANT | Surrogate | MW | H | H' | Di | Dw | Koc | Kd | Kd_VF | Kd_s_to_gw | S | Da | VF_S | SAT | soil-to-gw | |
|-----------------------------------|---------------|---------|--------------|-----------------|---------|---------|-----------------------|-------------------------|---------|------------|---------|--------------|---------|---------|------------|---------------|
| | | (g/mol) | (atm-m3/mol) | (dimensionless) | (cm2/s) | (cm2/s) | (organics) (cm3/g) | (inorganics) (cm3/g) | (cm3/g) | (cm3/g) | (cm3/g) | (µg/L-water) | (cm2/s) | (m3/kg) | (mg/kg) | factor (kg/L) |
| Acephate | | | | | | | | | | | | | | | | |
| Acetaldehyde | | 4.4E+01 | 7.9E-05 | 3.2E-03 | 1.2E-01 | 1.4E-05 | 1.8E+01 | | 1.1E-01 | 3.6E-02 | 1.0E+09 | 1.0E-04 | 1.5E+04 | | 2.4E-01 | |
| Acetochlor | | | | | | | | | | | | | | | | |
| Acetone | | 5.8E+01 | 3.9E-05 | 1.6E-03 | 1.2E-01 | 1.1E-05 | 5.8E-01 | | 3.5E-03 | 1.2E-03 | 1.0E+09 | 1.0E-04 | 1.5E+04 | | 2.0E-01 | |
| Acetone cyanohydrin | | | | | | | | | | | | | | | | |
| Acetonitrile | | 4.1E+01 | 2.0E-05 | 8.2E-04 | 1.3E-01 | 1.7E-05 | 1.6E+01 | | 9.4E-02 | 3.1E-02 | 1.0E+09 | 2.9E-05 | 2.7E+04 | | 2.3E-01 | |
| Acrolein | | 5.6E+01 | 1.2E-04 | 4.9E-03 | 1.1E-01 | 1.2E-05 | 2.1E+01 | | 1.3E-01 | 4.2E-02 | 2.1E+08 | 1.2E-04 | 1.4E+04 | | 2.4E-01 | |
| Acrylamide | | | | | | | | | | | | | | | | |
| Acrylic acid | | | | | | | | | | | | | | | | |
| Acrylonitrile | | 5.3E+01 | 8.8E-05 | 3.6E-03 | 1.1E-01 | 1.3E-05 | 8.5E-01 | | 5.1E-03 | 1.7E-03 | 7.9E+07 | 2.0E-04 | 1.1E+04 | | 2.0E-01 | |
| Alachlor | | | | | | | | | | | | | | | | |
| Alar | | | | | | | | | | | | | | | | |
| Aldicarb | | | | | | | | | | | | | | | | |
| Aldicarb sulfone | | | | | | | | | | | | | | | | |
| Aldrin | | | 1.7E-04 | 7.0E-03 | | | 2.5E+06 | | 1.5E+04 | 4.9E+03 | | | | | 4.9E+03 | |
| Ally | | | | | | | | | | | | | | | | |
| Allyl alcohol | | | | | | | | | | | | | | | | |
| Allyl chloride | | | | | | | | | | | | | | | | |
| Aluminum | | | | | | | | | | | | | | | | |
| Aluminum phosphide | | | | | | | | | | | | | | | | |
| Amdro | | | | | | | | | | | | | | | | |
| Ametryn | | | | | | | | | | | | | | | | |
| m-Aminophenol | | | | | | | | | | | | | | | | |
| 4-Aminopyridine | | | | | | | | | | | | | | | | |
| Amitraz | | | | | | | | | | | | | | | | |
| Ammonia | | | | | | | | | | | | | | | | |
| Ammonium sulfamate | | | | | | | | | | | | | | | | |
| Aniline | | | | | | | | | | | | | | | | |
| Antimony and compounds | | | | | | | | | | | | | | | | |
| Antimony pentoxide | | | | | | | | | | | | | | | | |
| Antimony potassium tartrate | | | | | | | | | | | | | | | | |
| Antimony tetroxide | | | | | | | | | | | | | | | | |
| Antimony trioxide | | | | | | | | | | | | | | | | |
| Apollo | | | | | | | | | | | | | | | | |
| Aramite | | | | | | | | | | | | | | | | |
| Arsenic (noncancer endpoint) | | | 0.0E+00 | 0.0E+00 | | | | | 2.9E+01 | 2.9E+01 | 2.9E+01 | | | | | 2.9E+01 |
| Arsenic (cancer endpoint) | | | 0.0E+00 | 0.0E+00 | | | | | 2.9E+01 | 2.9E+01 | 2.9E+01 | | | | | 2.9E+01 |
| Arsine | | | | | | | | | | | | | | | | |
| Assure | | | | | | | | | | | | | | | | |
| Asulam | | | | | | | | | | | | | | | | |
| Atrazine | | | | | | | | | | | | | | | | |
| Avermectin B1 | | | | | | | | | | | | | | | | |
| Azobenzene | | | | | | | | | | | | | | | | |
| Barium and compounds | | | 0.0E+00 | 0.0E+00 | | | | | 4.1E+01 | 4.1E+01 | 4.1E+01 | | | | | 4.1E+01 |
| Baygon | | | | | | | | | | | | | | | | |
| Bayleton | | | | | | | | | | | | | | | | |
| Baythroid | | | | | | | | | | | | | | | | |
| Benefin | | | | | | | | | | | | | | | | |
| Benomyl | | | | | | | | | | | | | | | | |
| Bentazon | | | | | | | | | | | | | | | | |
| Benzaldehyde | | | | | | | | | | | | | | | | |
| Benzene | | 7.8E+01 | 5.6E-03 | 2.3E-01 | 8.8E-02 | 9.8E-06 | 5.9E+01 | | 3.5E-01 | 1.2E-01 | 1.8E+06 | 2.1E-03 | 3.2E+03 | | 3.4E-01 | |
| Benztidine | | | | | | | | | | | | | | | | |
| Benzoic acid | | | 1.5E-06 | 6.3E-05 | | | 5.8E-01 | | 3.5E-03 | 1.2E-03 | | | | | 2.0E-01 | |
| Benzo-trichloride | | | | | | | | | | | | | | | | |
| Benzyl alcohol | | | | | | | | | | | | | | | | |
| Benzyl chloride | | 1.3E+02 | 5.1E-05 | 2.1E-03 | 6.7E-02 | 7.8E-06 | 5.0E+01 | | 3.0E-01 | 1.0E-01 | 3.3E+06 | 1.9E-05 | 3.5E+04 | | 3.0E-01 | |
| Beryllium and compounds | | | 0.0E+00 | 0.0E+00 | | | | | 7.4E+02 | 7.4E+02 | 7.4E+02 | | | | | 7.4E+02 |
| Bidrin | | | | | | | | | | | | | | | | |
| Biphenthrin (Talstar) | | | | | | | | | | | | | | | | |
| 1,1-Biphenyl | | 1.5E+02 | 3.0E-04 | 1.2E-02 | 4.0E-02 | 8.2E-06 | 7.8E+03 | | 4.7E+01 | 1.6E+01 | 7.5E+03 | 5.7E-07 | 2.0E+05 | | 1.6E+01 | |
| Bis(2-chloroethyl)ether | | 1.4E+02 | 1.8E-05 | 7.4E-04 | 6.9E-02 | 7.5E-06 | 7.6E+01 | | 4.6E-01 | 1.5E-01 | 1.7E+07 | 5.0E-06 | 6.7E+04 | | 3.5E-01 | |
| Bis(2-chloroisopropyl)ether | | 1.7E+02 | 1.1E-04 | 4.6E-03 | 6.3E-02 | 6.4E-06 | 6.1E+01 | | 3.7E-01 | 1.2E-01 | 1.7E+06 | 3.3E-05 | 2.6E+04 | | 3.2E-01 | |
| Bis(chloromethyl)ether | | 1.2E+02 | 2.0E-04 | 8.2E-03 | 8.9E-02 | 9.4E-06 | 1.2E+00 | | 7.2E-03 | 2.4E-03 | 2.2E+07 | 3.6E-04 | 7.9E+03 | | 2.0E-01 | |
| Bis(2-chloro-1-methylethyl)ether | | 1.7E+02 | 1.1E-04 | 4.6E-03 | 6.3E-02 | 6.4E-06 | 6.1E+01 | | 3.7E-01 | 1.2E-01 | 1.7E+06 | 3.3E-05 | 2.6E+04 | | 3.2E-01 | |
| Bis(2-ethylhexyl)phthalate (DEHP) | | | 1.0E-07 | 4.2E-06 | | | 1.5E+07 | | 9.1E+04 | 3.0E+04 | | | | | 3.0E+04 | |
| Bisphenol A | | | | | | | | | | | | | | | | |
| Boron | | | | | | | | | | | | | | | | |
| Boron trifluoride | | | | | | | | | | | | | | | | |
| Bromate | | | | | | | | | | | | | | | | |
| Bromobenzene | Chlorobenzene | 1.6E+02 | 3.7E-03 | 1.5E-01 | 7.3E-02 | 8.7E-06 | 2.2E+02 | | 1.3E+00 | 4.5E-01 | 4.7E+05 | 4.0E-04 | 7.4E+03 | | 6.6E-01 | |
| Bromodichloromethane | | 1.6E+02 | 1.6E-03 | 6.6E-02 | 3.0E-02 | 1.1E-05 | 5.5E+01 | | 3.3E-01 | 1.1E-01 | 6.7E+06 | 2.4E-04 | 9.7E+03 | | 3.2E-01 | |

**TABLE B-1
VCP REMEDIATION GOALS
PHYSICAL/CHEMICAL DATA**

| CONTAMINANT | Surrogate | MW (g/mol) | H (atm-m3/mol) | H' (dimensionless) | Di (cm2/s) | Dw (cm2/s) | Koc (organics) (cm3/g) | Kd (inorganics) (cm3/g) | Kd_VF (cm3/g) | Kd_s_to_gw (cm3/g) | S (µg/L-water) | Da (cm2/s) | VF_S (m3/kg) | SAT (mg/kg) | soil-to-gw factor (kg/L) |
|--|-------------------------|---------------|-------------------|-----------------------|---------------|---------------|------------------------------|-------------------------------|------------------|-----------------------|-------------------|---------------|-----------------|----------------|-----------------------------|
| Bromoform (tribromomethane) | | | | | | | | | | | | | | | |
| Bromomethane | | 9.5E+01 | 5.3E-04 | 2.2E-02 | 7.3E-02 | 1.2E-05 | 8.7E+01 | | 5.2E-01 | 1.7E-01 | | | | | 3.8E-01 |
| Bromophos | | | 6.2E-03 | 2.6E-01 | | | 9.0E+00 | | 5.4E-02 | 1.8E-02 | 1.5E+07 | 4.9E-03 | 2.1E+03 | | 2.4E-01 |
| Bromoxynil | | | | | | | | | | | | | | | |
| Bromoxynil octanoate | | | | | | | | | | | | | | | |
| 1,3-Butadiene | | 5.4E+01 | 1.8E-01 | 7.3E+00 | 9.8E-02 | 1.1E-05 | 1.2E+02 | | 7.2E-01 | 2.4E-01 | 7.4E+05 | 1.7E-02 | 1.1E+03 | | 1.1E+00 |
| 1-Butanol | | | 8.8E-06 | 3.6E-04 | | | 6.9E+00 | | 4.2E-02 | 1.4E-02 | | | | | 2.1E-01 |
| Butylate | | | | | | | | | | | | | | | |
| n-Butylbenzene | | 1.3E+02 | 1.3E-02 | 5.4E-01 | 7.5E-02 | 7.8E-06 | 2.8E+03 | | 1.7E+01 | 5.7E+00 | 1.4E+04 | 1.2E-04 | 1.3E+04 | | 5.9E+00 |
| sec-Butylbenzene | | 1.3E+02 | 1.9E-02 | 7.7E-01 | 7.5E-02 | 7.8E-06 | 2.2E+03 | | 1.3E+01 | 4.3E+00 | 1.7E+04 | 2.3E-04 | 9.7E+03 | | 4.6E+00 |
| tert-Butylbenzene | | 1.3E+02 | 1.3E-02 | 5.2E-01 | 7.5E-02 | 7.8E-06 | 2.2E+03 | | 1.3E+01 | 4.3E+00 | 3.0E+04 | 1.6E-04 | 1.2E+04 | | 4.5E+00 |
| Butyl benzyl phthalate | | | 1.3E-06 | 5.2E-05 | | | 5.8E+04 | | 3.5E+02 | 1.2E+02 | | | | | 1.2E+02 |
| Butylphthalyl butylglycolate | | | | | | | | | | | | | | | |
| Cacodylic acid | | | | | | | | | | | | | | | |
| Cadmium and compounds+++ | | | 0.0E+00 | 0.0E+00 | | | | 7.5E+01 | 7.5E+01 | 7.5E+01 | | | | | 7.5E+01 |
| Caprolactam | | | | | | | | | | | | | | | |
| Captafol | | | | | | | | | | | | | | | |
| Captan | | | | | | | | | | | | | | | |
| Carbaryl | | | | | | | | | | | | | | | |
| Carbazole | | | 1.5E-08 | 6.3E-07 | | | 3.4E+03 | | 2.0E+01 | 6.8E+00 | | | | | 7.0E+00 |
| Carbofuran | | | | | | | | | | | | | | | |
| Carbon disulfide | | 7.6E+01 | 3.0E-02 | 1.2E+00 | 1.0E-01 | 1.0E-05 | 4.6E+01 | | 2.7E-01 | 9.1E-02 | 1.2E+06 | 1.1E-02 | 1.4E+03 | | 4.0E-01 |
| Carbon tetrachloride | | 1.5E+02 | 3.0E-02 | 1.2E+00 | 7.8E-02 | 8.8E-06 | 1.7E+02 | | 1.0E+00 | 3.5E-01 | 7.9E+05 | 3.8E-03 | 2.4E+03 | | 6.6E-01 |
| Carbosulfan | | | | | | | | | | | | | | | |
| Carboxin | | | | | | | | | | | | | | | |
| Chloramben | | | | | | | | | | | | | | | |
| Chloranil | | | | | | | | | | | | | | | |
| Chlordane | | | 2.9E+03 | 1.2E+05 | | | 2.0E-03 | | 1.2E-05 | 4.0E-06 | | | | | 1.1E+04 |
| Chlorimuron-ethyl | | | | | | | | | | | | | | | |
| Chlorine | | | | | | | | | | | | | | | |
| Chlorine dioxide | | | | | | | | | | | | | | | |
| Chloroacetic acid | | | | | | | | | | | | | | | |
| 2-Chloroacetophenone | Chlorobenzene | 1.6E+02 | 3.7E-02 | 1.5E+00 | 7.2E-02 | 6.8E-06 | 3.3E+02 | | 2.0E+00 | 6.6E-01 | 4.7E+05 | 2.5E-03 | 3.0E+03 | | 1.0E+00 |
| 4-Chloroaniline | | | 1.6E+00 | 6.6E+01 | | | 1.4E-05 | | 8.2E-08 | 2.7E-08 | | | | | 6.1E+00 |
| Chlorobenzene | | 1.1E+02 | 3.7E-03 | 1.5E-01 | 7.3E-02 | 8.7E-06 | 2.2E+02 | | 1.3E+00 | 4.4E-01 | 4.7E+05 | 4.1E-04 | 7.3E+03 | | 6.5E-01 |
| Chlorobenzilate | | | | | | | | | | | | | | | |
| p-Chlorobenzoic acid | | | | | | | | | | | | | | | |
| 4-Chlorobenzotrifluoride | | | | | | | | | | | | | | | |
| 2-Chloro-1,3-butadiene | | 8.8E+01 | 3.2E-02 | 1.3E+00 | 1.1E-01 | 1.1E-05 | 5.0E+01 | | 3.0E-01 | 1.0E-01 | 7.4E+05 | 1.2E-02 | 1.4E+03 | | 4.2E-01 |
| 1-Chlorobutane | 2-Chloro-1,3-butadiene | 9.3E+01 | 3.2E-02 | 1.3E+00 | 1.1E-01 | 1.1E-05 | 5.0E+01 | | 3.0E-01 | 1.0E-01 | 7.4E+05 | 1.2E-02 | 1.4E+03 | | 4.2E-01 |
| 1-Chloro-1,1-difluoroethane | Dichlorodifluoromethane | 1.0E+02 | 1.0E-01 | 4.1E+00 | 8.0E-02 | 1.1E-05 | 5.8E+01 | | 3.5E-01 | 1.2E-01 | 2.8E+05 | 1.4E-02 | 1.2E+03 | | 6.8E-01 |
| Chlorodifluoromethane | Dichlorodifluoromethane | 8.7E+01 | 1.0E-01 | 4.1E+00 | 8.0E-02 | 1.1E-05 | 5.8E+01 | | 3.5E-01 | 1.2E-01 | 2.8E+05 | 1.4E-02 | 1.2E+03 | | 6.8E-01 |
| Chloroethane | | 6.5E+01 | 1.1E-02 | 4.5E-01 | 1.0E-01 | 1.2E-05 | 1.5E+01 | | 8.8E-02 | 2.9E-02 | 5.7E+06 | 9.1E-03 | 1.6E+03 | | 2.7E-01 |
| Chloroform | | 1.2E+02 | 3.7E-03 | 1.5E-01 | 1.0E-01 | 1.0E-05 | 4.0E+01 | | 2.4E-01 | 8.0E-02 | 7.9E+06 | 2.3E-03 | 3.1E+03 | | 2.9E-01 |
| Chloromethane | | 5.1E+01 | 2.4E-02 | 9.8E-01 | 1.1E-01 | 6.5E-06 | 3.5E+01 | | 2.1E-01 | 7.0E-02 | 8.2E+06 | 1.2E-02 | 1.4E+03 | | 3.6E-01 |
| 4-Chloro-2-methylaniline | | | | | | | | | | | | | | | |
| 4-Chloro-2-methylaniline hydrochloride | | | | | | | | | | | | | | | |
| beta-Chloronaphthalene | | 1.6E+02 | 3.1E-04 | 1.3E-02 | 3.5E-02 | 8.8E-06 | 1.6E+03 | | 9.3E+00 | 3.1E+00 | 1.2E+04 | 2.5E-06 | 9.4E+04 | | 3.3E+00 |
| o-Chloronitrobenzene | Nitrobenzene | 1.6E+02 | 2.4E-05 | 9.8E-04 | 7.6E-02 | 8.6E-06 | 6.5E+01 | | 3.9E-01 | 1.3E-01 | 2.1E+06 | 8.2E-06 | 5.2E+04 | | 3.3E-01 |
| p-Chloronitrobenzene | Nitrobenzene | 1.6E+02 | 2.4E-05 | 9.8E-04 | 7.6E-02 | 8.6E-06 | 6.5E+01 | | 3.9E-01 | 1.3E-01 | 2.1E+06 | 8.2E-06 | 5.2E+04 | | 3.3E-01 |
| 2-Chlorophenol | | 1.3E+02 | 3.9E-04 | 1.6E-02 | 5.0E-01 | 9.5E-06 | 4.0E+02 | | 2.4E+00 | 8.0E-01 | 2.2E+07 | 1.7E-04 | 1.1E+04 | | 1.0E+00 |
| 2-Chloropropane | 1,2-Dichloropropane | 7.9E+01 | 2.3E-03 | 9.4E-02 | 8.0E-02 | 1.0E-05 | 5.1E+01 | | 3.1E-01 | 1.0E-01 | 2.7E+06 | 9.5E-04 | 4.8E+03 | | 3.1E-01 |
| Chlorothalonil | | | | | | | | | | | | | | | |
| o-Chlorotoluene | Chlorobenzene | 1.3E+02 | 3.5E-03 | 1.4E-01 | 7.2E-02 | 8.7E-06 | 1.6E+02 | | 9.6E-01 | 3.2E-01 | 4.7E+05 | 5.1E-04 | 6.6E+03 | | 5.3E-01 |
| Chlorpropham | | | | | | | | | | | | | | | |
| Chlorpyrifos | | | | | | | | | | | | | | | |
| Chlorpyrifos-methyl | | | | | | | | | | | | | | | |
| Chlorsulfuron | | | | | | | | | | | | | | | |
| Chloriophos | | | | | | | | | | | | | | | |
| Total Chromium (1:6 ratio Cr VI:Cr III)+++ | | | 0.0E+00 | 0.0E+00 | | | | 1.5E+06 | 1.5E+06 | 1.5E+06 | | | | | 1.5E+06 |
| Chromium III | | | 0.0E+00 | 0.0E+00 | | | | 1.8E+06 | 1.8E+06 | 1.8E+06 | | | | | 1.8E+06 |
| Chromium VI+++ | | | 0.0E+00 | 0.0E+00 | | | | 1.9E+01 | 1.9E+01 | 1.9E+01 | | | | | 1.9E+01 |
| Cobalt | | | | | | | | | | | | | | | |
| Coke Oven Emissions | | | | | | | | | | | | | | | |
| Copper and compounds | | | | | | | | | | | | | | | |
| Crotonaldehyde | Methyl methacrylate | 7.0E+01 | 2.4E-01 | 1.0E+01 | 9.1E-02 | 1.0E-05 | 8.4E+02 | | 5.0E+00 | 1.7E+00 | 2.0E+04 | 6.9E-03 | 1.8E+03 | | 2.8E+00 |
| Cumene (isopropylbenzene) | | 1.2E+02 | 1.2E-02 | 4.7E-01 | 7.5E-02 | 7.1E-06 | 2.2E+02 | | 1.3E+00 | 4.4E-01 | 6.1E+04 | 1.2E-03 | 4.2E+03 | | 6.8E-01 |
| Cyanazine | | | | | | | | | | | | | | | |
| Cyanide (free) | | | | | | | | | | | | | | | |
| Cyanide (hydrogen) | | 2.7E+01 | 1.3E-04 | 5.3E-03 | 1.8E-01 | 1.8E-05 | 1.7E+01 | | 1.0E-01 | 3.5E-02 | 1.0E+09 | 2.5E-04 | 9.5E+03 | | 2.4E-01 |
| Cyanogen | | 5.2E+01 | 5.0E-03 | 2.1E-01 | 9.6E-02 | 1.0E-05 | 2.6E+01 | | 1.6E-01 | 5.2E-02 | 8.5E+06 | 3.6E-03 | 2.5E+03 | | 2.7E-01 |
| Cyanogen bromide | | 5.2E+01 | 5.0E-03 | 2.1E-01 | 9.6E-02 | 1.0E-05 | 2.6E+01 | | 1.6E-01 | 5.2E-02 | 8.5E+06 | 3.6E-03 | 2.5E+03 | | 2.7E-01 |

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PHYSICAL/CHEMICAL DATA**

| CONTAMINANT | Surrogate | MW | H | H' | Di | Dw | Koc | Kd | Kd_VF | Kd_s to gw | S | Da | VF_S | SAT | soil-to-gw |
|--|-----------|---------|--------------|-----------------|---------|---------|-----------------------|-------------------------|---------|------------|--------------|---------|---------|---------|---------------|
| | | (g/mol) | (atm-m3/mol) | (dimensionless) | (cm2/s) | (cm2/s) | (organics) (cm3/g) | (inorganics) (cm3/g) | (cm3/g) | (cm3/g) | (µg/L-water) | (cm2/s) | (m3/kg) | (mg/kg) | factor (kg/L) |
| Cyanogen chloride | | 5.2E+01 | 5.0E-03 | 2.1E-01 | 9.6E-02 | 1.0E-05 | 2.6E+01 | | 1.6E-01 | 5.2E-02 | 8.5E+06 | 3.6E-03 | 2.5E+03 | | 2.7E-01 |
| Cyclohexane | | 8.4E+01 | 2.0E-01 | 8.2E+00 | 8.0E-02 | 9.0E-06 | 1.6E+02 | | 9.6E-01 | 3.2E-01 | 5.5E+04 | 1.3E-02 | 1.3E+03 | | 1.3E+00 |
| Cyclohexanone | | | | | | | | | | | | | | | |
| Cyclohexylamine | | | | | | | | | | | | | | | |
| Cyhalothrin/Karate | | | | | | | | | | | | | | | |
| Cypermethrin | | | | | | | | | | | | | | | |
| Cyromazine | | | | | | | | | | | | | | | |
| Dacthal | | | | | | | | | | | | | | | |
| Dalapon | | | | | | | | | | | | | | | |
| Danitol | | | | | | | | | | | | | | | |
| DDD | | | 4.0E-06 | 1.6E-04 | | | 1.0E+06 | | 6.0E+03 | 2.0E+03 | | | | | 2.0E+03 |
| DDE | | | 2.1E-05 | 8.6E-04 | | | 4.5E+06 | | 2.7E+04 | 8.9E+03 | | | | | 8.9E+03 |
| DDT | | | 8.1E-06 | 3.3E-04 | | | 2.2E+06 | | 1.3E+04 | 4.5E+03 | | | | | 4.5E+03 |
| Decabromodiphenyl ether | | | | | | | | | | | | | | | |
| Demeton | | | | | | | | | | | | | | | |
| Diallate | | | | | | | | | | | | | | | |
| Diazinon | | | | | | | | | | | | | | | |
| Dibenzofuran | | 1.7E+02 | 1.3E-05 | 5.3E-04 | 6.0E-02 | 1.0E-05 | 7.8E+03 | | 4.7E+01 | 1.6E+01 | 3.1E+03 | 3.8E-08 | 7.6E+05 | | 1.6E+01 |
| 1,4-Dibromobenzene | | | | | | | | | | | | | | | |
| Dibromochloromethane | | 2.1E+02 | 8.5E-04 | 3.5E-02 | 9.6E-02 | 1.0E-05 | 4.7E+02 | | 2.8E+00 | 9.4E-01 | 4.4E+06 | | | | 1.1E+00 |
| 1,2-Dibromo-3-chloropropane | | 2.4E+02 | 1.5E-04 | 6.0E-03 | 2.1E-02 | 7.0E-06 | 2.8E+01 | | 1.7E-01 | 5.7E-02 | 1.2E+06 | | | | 2.6E-01 |
| 1,2-Dibromoethane | | 1.9E+02 | 3.2E-04 | 1.3E-02 | 7.3E-02 | 8.1E-06 | 2.8E+01 | | 1.7E-01 | 5.6E-02 | 3.4E+06 | 1.9E-04 | 1.1E+04 | | 2.6E-01 |
| Dibutyl phthalate | | | 9.4E-10 | 3.9E-08 | | | 3.4E+04 | | 2.0E+02 | 6.8E+01 | | | | | 6.8E+01 |
| Dicamba | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | | 1.5E+02 | 1.9E-03 | 7.8E-02 | 6.9E-02 | 7.9E-06 | 6.2E+02 | | 3.7E+00 | 1.2E+00 | 1.6E+05 | 7.5E-05 | 1.7E+04 | | 1.4E+00 |
| 1,3-Dichlorobenzene | | 1.5E+02 | 1.9E-03 | 7.8E-02 | 6.9E-02 | 7.9E-06 | 6.2E+02 | | 3.7E+00 | 1.2E+00 | 1.6E+05 | 7.5E-05 | 1.7E+04 | | 1.4E+00 |
| 1,4-Dichlorobenzene | | 1.5E+02 | 2.4E-03 | 1.0E-01 | 6.9E-02 | 7.9E-06 | 6.2E+02 | | 3.7E+00 | 1.2E+00 | 7.4E+04 | 9.6E-05 | 1.5E+04 | | 1.4E+00 |
| 3,3-Dichlorobenzidine | | | 4.0E-09 | 1.6E-07 | | | 7.2E+02 | | 4.3E+00 | 1.4E+00 | | | | | 1.6E+00 |
| 4,4'-Dichlorobenzophenone | | | | | | | | | | | | | | | |
| 1,4-Dichloro-2-butene | | 1.3E+02 | 2.6E-04 | 1.1E-02 | 7.3E-02 | 8.1E-06 | 4.8E+01 | | 2.9E-01 | 9.6E-02 | 2.8E+06 | 1.1E-04 | 1.4E+04 | | 3.0E-01 |
| Dichlorodifluoromethane | | 1.2E+02 | 1.0E-01 | 4.1E+00 | 8.0E-02 | 1.1E-05 | 5.8E+01 | | 3.5E-01 | 1.2E-01 | 2.8E+05 | 1.4E-02 | 1.2E+03 | | 6.8E-01 |
| 1,1-Dichloroethane | | 9.9E+01 | 5.6E-03 | 2.3E-01 | 7.4E-02 | 1.1E-05 | 3.2E+01 | | 1.9E-01 | 6.3E-02 | 5.1E+06 | 2.7E-03 | 2.8E+03 | | 2.8E-01 |
| 1,2-Dichloroethane | | 9.9E+01 | 9.8E-04 | 4.0E-02 | 1.0E-01 | 9.9E-06 | 1.7E+01 | | 1.0E-01 | 3.5E-02 | 8.5E+06 | 1.0E-03 | 4.6E+03 | | 2.4E-01 |
| 1,1-Dichloroethylene | | 9.7E+01 | 2.6E-02 | 1.1E+00 | 9.0E-02 | 1.0E-05 | 5.9E+01 | | 3.5E-01 | 1.2E-01 | 2.3E+06 | 7.8E-03 | 1.7E+03 | | 4.1E-01 |
| 1,2-Dichloroethylene (cis) | | 9.7E+01 | 4.1E-03 | 1.7E-01 | 7.4E-02 | 1.1E-05 | 3.6E+01 | | 2.1E-01 | 7.1E-02 | 3.5E+06 | 1.9E-03 | 3.4E+03 | | 2.9E-01 |
| 1,2-Dichloroethylene (trans) | | 9.7E+01 | 9.4E-03 | 3.8E-01 | 7.1E-02 | 1.2E-05 | 5.3E+01 | | 3.2E-01 | 1.1E-01 | 6.3E+06 | 3.0E-03 | 2.7E+03 | | 3.4E-01 |
| 2,4-Dichlorophenol | | | 3.2E-06 | 1.3E-04 | | | 1.5E+02 | | 8.8E-01 | 2.9E-01 | | | | | 4.9E-01 |
| 4-(2,4-Dichlorophenoxy)butyric Acid (2,4-DB) | | | | | | | | | | | | | | | |
| 2,4-Dichlorophenoxyacetic Acid (2,4-D) | | | | | | | | | | | | | | | |
| 1,2-Dichloropropane | | 1.1E+02 | 2.8E-03 | 1.1E-01 | 7.8E-02 | 8.7E-06 | 4.4E+01 | | 2.6E-01 | 8.7E-02 | 2.8E+06 | 1.2E-03 | 4.2E+03 | | 3.0E-01 |
| 1,3-Dichloropropene | | 1.1E+02 | 1.8E-02 | 7.3E-01 | 6.3E-02 | 1.0E-05 | 4.6E+01 | | 2.7E-01 | 9.1E-02 | 2.8E+06 | 4.7E-03 | 2.2E+03 | | 3.6E-01 |
| 2,3-Dichloropropanol | | | | | | | | | | | | | | | |
| Dichlorvos | | | | | | | | | | | | | | | |
| Dicofol | | | | | | | | | | | | | | | |
| Dicyclopentadiene | | 1.3E+02 | 1.1E-02 | 4.4E-01 | 6.7E-02 | 1.0E-05 | 5.7E+02 | | 3.4E+00 | 1.1E+00 | 1.8E+06 | 4.3E-04 | 7.1E+03 | | 1.4E+00 |
| Dieldrin | | | 1.5E-05 | 6.2E-04 | | | 2.1E+04 | | 1.3E+02 | 4.3E+01 | | | | | 4.3E+01 |
| Diethylene glycol, monobutyl ether | | | | | | | | | | | | | | | |
| Diethylene glycol, monoethyl ether | | | | | | | | | | | | | | | |
| Diethylformamide | | | | | | | | | | | | | | | |
| Di(2-ethylhexyl)adipate | | | | | | | | | | | | | | | |
| Diethyl phthalate | | | 4.5E-07 | 1.9E-05 | | | 2.9E+02 | | 1.7E+00 | 5.8E-01 | | | | | 7.8E-01 |
| Diethylstilbestrol | | | | | | | | | | | | | | | |
| Difenzoquat (Avenge) | | | | | | | | | | | | | | | |
| Diflubenzuron | | | | | | | | | | | | | | | |
| 1,1-Difluoroethane | | | | | | | | | | | | | | | |
| Diisononyl phthalate | | | | | | | | | | | | | | | |
| Diisopropyl methylphosphonate | | | | | | | | | | | | | | | |
| Dimethipin | | | | | | | | | | | | | | | |
| Dimethoate | | | | | | | | | | | | | | | |
| 3,3'-Dimethoxybenzidine | | | | | | | | | | | | | | | |
| Dimethylamine | | 4.5E+01 | 9.0E-05 | 3.7E-03 | 1.2E-01 | 1.3E-05 | 2.2E+00 | | 1.3E-02 | 4.4E-03 | 1.0E+09 | 2.1E-04 | 1.0E+04 | | 2.0E-01 |
| N,N-Dimethylaniline | | | | | | | | | | | | | | | |
| 2,4-Dimethylaniline | | | | | | | | | | | | | | | |
| 2,4-Dimethylaniline hydrochloride | | | | | | | | | | | | | | | |
| 3,3'-Dimethylbenzidine | | | | | | | | | | | | | | | |
| N,N-Dimethylformamide | | | | | | | | | | | | | | | |
| Dimethylphenethylamine | | | | | | | | | | | | | | | |
| 2,4-Dimethylphenol | | | 2.0E-06 | 8.2E-05 | | | 2.1E+02 | | 1.3E+00 | 4.2E-01 | | | | | 6.2E-01 |
| 2,6-Dimethylphenol | | | | | | | | | | | | | | | |
| 3,4-Dimethylphenol | | | | | | | | | | | | | | | |
| Dimethyl phthalate | | | | | | | | | | | | | | | |
| Dimethyl terephthalate | | | | | | | | | | | | | | | |

**TABLE B-1
VCP REMEDIATION GOALS
PHYSICAL/CHEMICAL DATA**

| CONTAMINANT | Surrogate | MW (g/mol) | H (atm-m3/mol) | H' (dimensionless) | Di (cm2/s) | Dw (cm2/s) | Koc (organics) (cm3/g) | Kd (inorganics) (cm3/g) | Kd_VF (cm3/g) | Kd_s_to_gw (cm3/g) | S (µg/L-water) | Da (cm2/s) | VF_S (m3/kg) | SAT (mg/kg) | soil-to-gw factor (kg/L) |
|--|-------------------------|---------------|-------------------|-----------------------|---------------|---------------|------------------------------|-------------------------------|------------------|-----------------------|-------------------|---------------|-----------------|----------------|-----------------------------|
| 4,6-Dinitro-o-cyclohexyl phenol | | | | | | | | | | | | | | | |
| 1,2-Dinitrobenzene | | | | | | | | | | | | | | | |
| 1,3-Dinitrobenzene | | | | | | | | | | | | | | | |
| 1,4-Dinitrobenzene | | | | | | | | | | | | | | | |
| 2,4-Dinitrophenol | | | 4.4E-07 | 1.8E-05 | | | 1.0E-02 | | 6.1E-05 | 2.0E-05 | | | | | 2.0E-01 |
| Dinitrotoluene mixture | | | | | | | | | | | | | | | |
| 2,4-Dinitrotoluene | | | 9.3E-08 | 3.8E-06 | | | 9.6E+01 | | 5.7E-01 | 1.9E-01 | | | | | 3.9E-01 |
| 2,6-Dinitrotoluene | | | | | | | | | | | | | | | |
| Dinoseb | | | | | | | | | | | | | | | |
| di-n-Octyl phthalate | | | 6.7E-05 | 2.7E-03 | | | 8.3E+07 | | 5.0E+05 | 1.7E+05 | | | | | 1.7E+05 |
| 1,4-Dioxane | | | | | | | | | | | | | | | |
| Dioxin (2,3,7,8-TCDD) | | | | | | | | | | | | | | | |
| Diphenamid | | | | | | | | | | | | | | | |
| Diphenylamine | | | | | | | | | | | | | | | |
| N,N-Diphenyl-1,4 benzenediamine (DPPD) | | | | | | | | | | | | | | | |
| 1,2-Diphenylhydrazine | | | | | | | | | | | | | | | |
| Diphenyl sulfone | | | | | | | | | | | | | | | |
| Diquat | | | | | | | | | | | | | | | |
| Direct black 38 | | | | | | | | | | | | | | | |
| Direct blue 6 | | | | | | | | | | | | | | | |
| Direct brown 95 | | | | | | | | | | | | | | | |
| Disulfoton | | | | | | | | | | | | | | | |
| 1,4-Dithiane | | | | | | | | | | | | | | | |
| Diuron | | | | | | | | | | | | | | | |
| Dodine | | | | | | | | | | | | | | | |
| Dysprosium | | | | | | | | | | | | | | | |
| Endosulfan | | | 1.1E-05 | 4.6E-04 | | | 2.1E+03 | | 1.3E+01 | 4.3E+00 | | | | | 4.5E+00 |
| Endothall | | | | | | | | | | | | | | | |
| Endrin | | | 7.5E-06 | 3.1E-04 | | | 1.2E+04 | | 7.4E+01 | 2.5E+01 | | | | | 2.5E+01 |
| Epichlorohydrin | | 9.3E+01 | 3.2E-05 | 1.3E-03 | 8.8E-02 | 9.8E-06 | 3.5E+00 | | 2.1E-02 | 7.0E-03 | 6.0E+07 | 5.1E-05 | 2.1E+04 | | 2.1E-01 |
| 1,2-Epoxybutane | | | | | | | | | | | | | | | |
| EPTC (S-Ethyl dipropylthiocarbamate) | | | | | | | | | | | | | | | |
| Ethephon (2-chloroethyl phosphonic acid) | | | | | | | | | | | | | | | |
| Ethion | | | | | | | | | | | | | | | |
| 2-Ethoxyethanol | | | | | | | | | | | | | | | |
| 2-Ethoxyethanol acetate | | | | | | | | | | | | | | | |
| Ethyl acetate | | 8.8E+01 | 1.4E-04 | 5.7E-03 | 7.3E-02 | 9.7E-06 | 5.9E+01 | | 3.6E-01 | 1.2E-01 | 8.0E+07 | 4.9E-05 | 2.1E+04 | | 3.2E-01 |
| Ethyl acrylate | Methyl methacrylate | 1.0E+02 | 2.4E-01 | 9.8E+00 | 9.1E-02 | 8.6E-06 | 8.4E+02 | | 5.0E+00 | 1.7E+00 | 2.0E+04 | 6.8E-03 | 1.8E+03 | | 2.8E+00 |
| Ethylbenzene | | 1.1E+02 | 7.9E-03 | 3.2E-01 | 7.5E-02 | 7.8E-06 | 3.6E+02 | | 2.2E+00 | 7.3E-01 | 1.7E+05 | 5.5E-04 | 6.3E+03 | | 9.5E-01 |
| Ethyl chloride | | 6.5E+01 | 1.1E-02 | 4.5E-01 | 1.0E-01 | 1.2E-05 | 1.5E+01 | | 8.8E-02 | 2.9E-02 | 5.7E+06 | 9.1E-03 | 1.6E+03 | | 2.7E-01 |
| Ethylene cyanohydrin | | | | | | | | | | | | | | | |
| Ethylene diamine | | | | | | | | | | | | | | | |
| Ethylene glycol | | | | | | | | | | | | | | | |
| Ethylene glycol, monobutyl ether | | | | | | | | | | | | | | | |
| Ethylene oxide | | 4.4E+01 | 7.6E-05 | 3.1E-03 | 1.3E-01 | 1.5E-05 | 2.2E+00 | | 1.3E-02 | 4.4E-03 | 1.0E+09 | 1.8E-04 | 1.1E+04 | | 2.0E-01 |
| Ethylene thiourea (ETU) | | | | | | | | | | | | | | | |
| Ethyl ether | Bis(2-chloroethyl)ether | 7.4E+01 | 1.3E-05 | 5.3E-04 | 7.0E-02 | 9.3E-06 | 1.4E+01 | | 8.4E-02 | 2.8E-02 | 1.0E+07 | 1.1E-05 | 4.5E+04 | | 2.3E-01 |
| Ethyl methacrylate | Methyl methacrylate | 1.1E+02 | 2.4E-01 | 1.0E+01 | 9.1E-02 | 8.6E-06 | 8.4E+02 | | 5.0E+00 | 1.7E+00 | 2.0E+04 | 6.9E-03 | 1.8E+03 | | 2.8E+00 |
| Ethyl p-nitrophenyl phenylphosphorothioate | | | | | | | | | | | | | | | |
| Ethylphthalyl ethyl glycolate | | | | | | | | | | | | | | | |
| Express | | | | | | | | | | | | | | | |
| Fenamiphos | | | | | | | | | | | | | | | |
| Fluometuron | | | | | | | | | | | | | | | |
| Fluoride | | | | | | | | | | | | | | | |
| Fluoridone | | | | | | | | | | | | | | | |
| Flurprimidol | | | | | | | | | | | | | | | |
| Flutolanil | | | | | | | | | | | | | | | |
| Fluvalinate | | | | | | | | | | | | | | | |
| Folpet | | | | | | | | | | | | | | | |
| Fomesafen | | | | | | | | | | | | | | | |
| Fonofos | | | | | | | | | | | | | | | |
| Formaldehyde | | | | | | | | | | | | | | | |
| Formic acid | | | | | | | | | | | | | | | |
| Fosetyl-al | | | | | | | | | | | | | | | |
| Freon 113 | | 1.9E+02 | 5.2E-01 | 2.1E+01 | 2.9E-02 | 8.1E-06 | 1.6E+02 | | 9.6E-01 | 3.2E-01 | 1.1E+06 | 6.4E-03 | 1.9E+03 | | 2.4E+00 |
| Furan | | 6.8E+01 | 5.4E-03 | 2.2E-01 | 1.0E-01 | 1.2E-05 | 1.2E+01 | | 7.4E-02 | 2.5E-02 | 1.0E+07 | 5.7E-03 | 2.0E+03 | | 2.4E-01 |
| Furazolidone | | | | | | | | | | | | | | | |
| Furfural | | | | | | | | | | | | | | | |
| Furium | | | | | | | | | | | | | | | |
| Furmecyclox | | | | | | | | | | | | | | | |
| Glufosinate-ammonium | | | | | | | | | | | | | | | |
| Glycidaldehyde | | | | | | | | | | | | | | | |

**TABLE B-1
VCP REMEDIATION GOALS
PHYSICAL/CHEMICAL DATA**

| CONTAMINANT | Surrogate | MW | H | H' | Di | Dw | Koc | Kd | Kd_VF | Kd_s_to_gw | S | Da | VF_S | SAT | soil-to-gw |
|--|---------------------|---------|--------------|-----------------|---------|---------|-----------------------|-------------------------|---------|------------|--------------|---------|---------|---------|---------------|
| | | (g/mol) | (atm-m3/mol) | (dimensionless) | (cm2/s) | (cm2/s) | (organics) (cm3/g) | (inorganics) (cm3/g) | (cm3/g) | (cm3/g) | (µg/L-water) | (cm2/s) | (m3/kg) | (mg/kg) | factor (kg/L) |
| Glyphosate | | | | | | | | | | | | | | | |
| Haloxypop-methyl | | | | | | | | | | | | | | | |
| Harmony | | | | | | | | | | | | | | | |
| Heptachlor | | | 1.1E-03 | 4.5E-02 | | | 1.4E+06 | | 8.5E+03 | 2.8E+03 | | | | | 2.8E+03 |
| Heptachlor epoxide | | | 9.5E-06 | 3.9E-04 | | | 8.3E+04 | | 5.0E+02 | 1.7E+02 | | | | | 1.7E+02 |
| Hexabromobenzene | | | | | | | | | | | | | | | |
| Hexachlorobenzene | | | 1.3E-03 | 5.4E-02 | | | 5.5E+04 | | 3.3E+02 | 1.1E+02 | | | | | 1.1E+02 |
| Hexachlorobutadiene | | | 8.1E-03 | 3.3E-01 | | | 5.4E+04 | | 3.2E+02 | 1.1E+02 | | | | | 1.1E+02 |
| HCH (alpha) | | | 1.1E-05 | 4.4E-04 | | | 1.2E+03 | | 7.4E+00 | 2.5E+00 | | | | | 2.7E+00 |
| HCH (beta) | | | 7.4E-07 | 3.1E-05 | | | 1.3E+03 | | 7.6E+00 | 2.5E+00 | | | | | 2.7E+00 |
| HCH (gamma) Lindane | | | 1.4E-05 | 5.7E-04 | | | 1.1E+03 | | 6.4E+00 | 2.1E+00 | | | | | 2.3E+00 |
| HCH-technical | | | | | | | | | | | | | | | |
| Hexachlorocyclopentadiene | | | 2.7E-02 | 1.1E+00 | | | 2.0E+05 | | 1.2E+03 | 4.0E+02 | | | | | 4.0E+02 |
| Hexachloroethane | | | 3.9E-03 | 1.6E-01 | | | 1.8E+03 | | 1.1E+01 | 3.6E+00 | | | | | 3.8E+00 |
| Hexachlorophene | | | | | | | | | | | | | | | |
| Hexahydro-1,3,5-trinitro-1,3,5-triazine | | | | | | | | | | | | | | | |
| 1,6-Hexamethylene diisocyanate | | | | | | | | | | | | | | | |
| n-Hexane | | 8.6E+01 | 1.2E-01 | 5.0E+00 | 2.0E-01 | 7.8E-06 | 8.9E+02 | | 5.3E+00 | 1.8E+00 | 1.8E+04 | 8.3E-03 | 1.6E+03 | | 2.4E+00 |
| Hexazinone | | | | | | | | | | | | | | | |
| Hydrazine, hydrazine sulfate | | | | | | | | | | | | | | | |
| Hydrazine, monomethyl | | | | | | | | | | | | | | | |
| Hydrazine, dimethyl | | | | | | | | | | | | | | | |
| Hydrogen chloride | | | | | | | | | | | | | | | |
| Hydrogen cyanide | | 2.7E+01 | 1.3E-04 | 5.3E-03 | 1.8E-01 | 1.8E-05 | 1.7E+01 | | 1.0E-01 | 3.5E-02 | 1.0E+09 | 2.5E-04 | 9.5E+03 | | 2.4E-01 |
| Hydrogen sulfide | | | | | | | | | | | | | | | |
| p-Hydroquinone | | | | | | | | | | | | | | | |
| Imazail | | | | | | | | | | | | | | | |
| Imazaquin | | | | | | | | | | | | | | | |
| Iprodione | | | | | | | | | | | | | | | |
| Iron | | | | | | | | | | | | | | | |
| Isobutanol | | 7.4E+01 | 1.2E-05 | 4.9E-04 | 8.6E-02 | 9.3E-06 | 6.2E+01 | | 3.7E-01 | 1.2E-01 | 8.5E+07 | 4.9E-06 | 6.7E+04 | | 3.2E-01 |
| Isophorone | | | 6.6E-06 | 2.7E-04 | | | 4.7E+01 | | 2.8E-01 | 9.4E-02 | | | | | 2.9E-01 |
| Isopropalin | | | | | | | | | | | | | | | |
| Isopropyl methyl phosphonic acid | | | | | | | | | | | | | | | |
| Isoxaben | | | | | | | | | | | | | | | |
| Kepone | | | | | | | | | | | | | | | |
| Lactofen | | | | | | | | | | | | | | | |
| Lead+++ | | | | | | | | | | | | | | | |
| Lead (tetraethyl) | | | | | | | | | | | | | | | |
| Linuron | | | | | | | | | | | | | | | |
| Lithium | | | | | | | | | | | | | | | |
| Londax | | | | | | | | | | | | | | | |
| Malathion | | | | | | | | | | | | | | | |
| Maleic anhydride | | | | | | | | | | | | | | | |
| Maleic hydrazide | | 1.1E+02 | 6.6E-03 | 2.7E-01 | 9.0E-02 | 1.1E-05 | 4.2E+01 | | 2.5E-01 | 8.3E-02 | 6.0E+06 | 3.2E-03 | 2.6E+03 | | 3.1E-01 |
| Malononitrile | Acrylonitrile | | 8.8E-05 | 3.6E-03 | 1.1E-01 | 1.3E-05 | 8.5E-01 | | 5.1E-03 | 1.7E-03 | 7.9E+07 | | | | 2.0E-01 |
| Mancozeb | | | | | | | | | | | | | | | |
| Maneb | | | | | | | | | | | | | | | |
| Manganese (non-food)+++ | | | | | | | | | | | | | | | |
| Mephosolan | | | | | | | | | | | | | | | |
| Mepiquat | | | | | | | | | | | | | | | |
| 2-Mercaptobenzothiazole | | | | | | | | | | | | | | | |
| Mercury and compounds | | | 1.1E-02 | 4.7E-01 | | | 5.2E+01 | | 3.1E-01 | 1.0E-01 | | | | | 3.5E-01 |
| Mercury (elemental) | | | 1.1E-02 | 4.7E-01 | | | 5.2E+01 | | 3.1E-01 | 1.0E-01 | | | | | 3.5E-01 |
| Mercury (methyl) | | | | | | | | | | | | | | | |
| Merphos | | | | | | | | | | | | | | | |
| Merphos oxide | | | | | | | | | | | | | | | |
| Metalaxyl | | | | | | | | | | | | | | | |
| Methacrylonitrile | Acrylonitrile | 6.7E+01 | 8.8E-05 | 3.6E-03 | 1.1E-01 | 1.3E-05 | 8.5E-01 | | 5.1E-03 | 1.7E-03 | 7.9E+07 | 2.0E-04 | 1.0E+04 | | 2.0E-01 |
| Methamidophos | | | | | | | | | | | | | | | |
| Methanol | | | | | | | | | | | | | | | |
| Methidathion | | | | | | | | | | | | | | | |
| Methomyl | | 1.6E+02 | 3.8E-02 | 1.6E+00 | 6.9E-02 | 1.0E-05 | 1.5E+01 | | 8.9E-02 | 3.0E-02 | 1.7E+08 | 1.2E-02 | 1.4E+03 | | 3.7E-01 |
| Methoxychlor | | | 1.6E-05 | 6.5E-04 | | | 9.8E+04 | | 5.9E+02 | 2.0E+02 | | | | | 2.0E+02 |
| 2-Methoxyethanol | | | | | | | | | | | | | | | |
| 2-Methoxyethanol acetate | | | | | | | | | | | | | | | |
| 2-Methoxy-5-nitroaniline | | | | | | | | | | | | | | | |
| Methyl acetate | Acetone | 7.4E+01 | 2.1E-05 | 8.4E-04 | 1.0E-01 | 1.0E-05 | 2.2E+00 | | 1.3E-02 | 4.4E-03 | 1.0E+09 | 4.2E-05 | 2.3E+04 | | 2.0E-01 |
| Methyl acrylate | Methyl methacrylate | 8.6E+01 | 2.4E-01 | 9.8E+00 | 9.1E-02 | 8.6E-06 | 8.4E+02 | | 5.0E+00 | 1.7E+00 | 6.0E+04 | 6.8E-03 | 1.8E+03 | | 2.8E+00 |
| 2-Methylaniline (o-toluidine) | | | | | | | | | | | | | | | |
| 2-Methylaniline hydrochloride | | | | | | | | | | | | | | | |
| 2-Methyl-4-chlorophenoxyacetic acid (MCPA) | | | | | | | | | | | | | | | |

**TABLE B-1
VCP REMEDIATION GOALS
PHYSICAL/CHEMICAL DATA**

| CONTAMINANT | Surrogate | MW | H | H' | Di | Dw | Koc | Kd | Kd_VF | Kd_s_to_gw | S | Da | VF_S | SAT | soil-to-gw | |
|---|--------------|---------|--------------|-----------------|---------|---------|-----------------------|-------------------------|---------|------------|---------|--------------|---------|---------|------------|---------------|
| | | (g/mol) | (atm-m3/mol) | (dimensionless) | (cm2/s) | (cm2/s) | (organics) (cm3/g) | (inorganics) (cm3/g) | (cm3/g) | (cm3/g) | (cm3/g) | (µg/L-water) | (cm2/s) | (m3/kg) | (mg/kg) | factor (kg/L) |
| 4-(2-Methyl-4-chlorophenoxy) butyric acid (MCPB) | | | | | | | | | | | | | | | | |
| 2-(2-Methyl-4-chlorophenoxy) propionic acid | | | | | | | | | | | | | | | | |
| 2-(2-Methyl-1,4-chlorophenoxy) propionic acid (MCPBP) | | | | | | | | | | | | | | | | |
| Methylcyclohexane | | 9.8E+01 | 4.3E-01 | 1.8E+01 | 7.0E-02 | 9.0E-06 | 2.2E+03 | | 1.3E+01 | 4.4E+00 | 1.4E+04 | 4.0E-03 | 2.4E+03 | | 6.2E+00 | |
| 4,4'-Methylenebisbenzeneamine | | | | | | | | | | | | | | | | |
| 4,4'-Methylene bis(2-chloroaniline) | | | | | | | | | | | | | | | | |
| 4,4'-Methylene bis(N,N'-dimethyl)aniline | | | | | | | | | | | | | | | | |
| Methylene bromide | | 1.7E+02 | 9.0E-04 | 3.7E-02 | 9.6E-02 | 1.0E-05 | 2.5E+01 | | 1.5E-01 | 5.0E-02 | 1.2E+07 | 7.3E-04 | 5.5E+03 | | 2.5E-01 | |
| Methylene chloride | | 8.5E+01 | 2.2E-03 | 9.0E-02 | 1.0E-01 | 1.2E-05 | 1.2E+01 | | 7.0E-02 | 2.3E-02 | 1.3E+07 | 2.6E-03 | 2.9E+03 | | 2.3E-01 | |
| 4,4'-Methylenediphenyl isocyanate | | | | | | | | | | | | | | | | |
| Methyl ethyl ketone | | 7.2E+01 | 2.7E-05 | 1.1E-03 | 9.0E-02 | 9.8E-06 | 4.5E+00 | | 2.7E-02 | 9.0E-03 | 2.7E+08 | 4.3E-05 | 2.3E+04 | | 2.1E-01 | |
| Methyl isobutyl ketone | | 1.0E+02 | 1.4E-04 | 5.7E-03 | 7.5E-02 | 7.8E-06 | 1.3E+02 | | 8.0E-01 | 2.7E-01 | 1.9E+07 | 2.5E-05 | 2.9E+04 | | 4.7E-01 | |
| Methyl mercaptan | | | | | | | | | | | | | | | | |
| Methyl methacrylate | | 1.0E+02 | 3.4E-04 | 1.4E-02 | 7.7E-02 | 8.6E-06 | 1.3E+01 | | 7.9E-02 | 2.6E-02 | 1.5E+07 | 3.2E-04 | 8.4E+03 | | 2.3E-01 | |
| 2-Methyl-5-nitroaniline | | | | | | | | | | | | | | | | |
| Methyl parathion | | | | | | | | | | | | | | | | |
| 2-Methylphenol | | | 1.2E-06 | 4.9E-05 | | | 9.1E+01 | | 5.5E-01 | 1.8E-01 | | | | | 3.8E-01 | |
| 3-Methylphenol | | | | | | | | | | | | | | | | |
| 4-Methylphenol | | | | | | | | | | | | | | | | |
| Methyl phosphonic acid | | | | | | | | | | | | | | | | |
| Methyl styrene (mixture) | Nitrobenzene | 1.2E+02 | 2.3E-03 | 9.4E-02 | 7.1E-02 | 8.0E-06 | 3.6E+02 | | 2.2E+00 | 7.2E-01 | 3.0E+05 | 1.6E-04 | 1.2E+04 | | 9.3E-01 | |
| Methyl styrene (alpha) | Styrene | 1.2E+02 | 2.3E-03 | 9.4E-02 | 7.1E-02 | 8.0E-06 | 3.6E+02 | | 2.2E+00 | 7.2E-01 | 3.0E+05 | 1.6E-04 | 1.2E+04 | | 9.3E-01 | |
| Methyl tertbutyl ether (MTBE) | | 8.5E+01 | 5.9E-04 | 2.4E-02 | 8.0E-02 | 1.0E-05 | 6.0E+00 | | 3.6E-02 | 1.2E-02 | 1.5E+08 | 7.3E-04 | 5.5E+03 | | 2.1E-01 | |
| Metolaclor (Dual) | | | | | | | | | | | | | | | | |
| Metribuzin | | | | | | | | | | | | | | | | |
| Mirex | | | | | | | | | | | | | | | | |
| Molinate | | | | | | | | | | | | | | | | |
| Molybdenum | | | | | | | | | | | | | | | | |
| Monochloramine | | | | | | | | | | | | | | | | |
| Naled | | | | | | | | | | | | | | | | |
| Napropamide | | | | | | | | | | | | | | | | |
| Nickel and compounds | | | 0.0E+00 | 0.0E+00 | | | | 6.5E+01 | 6.5E+01 | 6.5E+01 | | | | | 6.5E+01 | |
| Nickel refinery dust | | | | | | | | | | | | | | | | |
| Nickel subsulfide | | | | | | | | | | | | | | | | |
| Nitrate | | | | | | | | | | | | | | | | |
| Nitrite | | | | | | | | | | | | | | | | |
| 2-Nitroaniline | | | | | | | | | | | | | | | | |
| Nitrobenzene | | 1.2E+02 | 2.4E-05 | 9.8E-04 | 7.6E-02 | 8.6E-06 | 6.5E+01 | | 3.9E-01 | 1.3E-01 | 2.1E+06 | 8.2E-06 | 5.2E+04 | | 3.3E-01 | |
| Nitrofurantoin | | | | | | | | | | | | | | | | |
| Nitrofurazone | | | | | | | | | | | | | | | | |
| Nitroglycerin | | | | | | | | | | | | | | | | |
| Nitroguanidine | | | | | | | | | | | | | | | | |
| 2-Nitropropane | | | | | | | | | | | | | | | | |
| N-Nitrosodi-n-butylamine | | 1.6E+02 | 3.2E-04 | 1.3E-02 | 5.8E-02 | 9.7E-06 | 2.6E+02 | | 1.5E+00 | 5.1E-01 | 1.3E+06 | 2.5E-05 | 3.0E+04 | | 7.2E-01 | |
| N-Nitrosodiethanolamine | | | | | | | | | | | | | | | | |
| N-Nitrosodiethylamine | | | | | | | | | | | | | | | | |
| N-Nitrosodimethylamine | | | | | | | | | | | | | | | | |
| N-Nitrosodiphenylamine | | | 5.0E-06 | 2.1E-04 | | | 1.3E+03 | | 7.7E+00 | 2.6E+00 | | | | | 2.8E+00 | |
| N-Nitroso di-n-propylamine | | | 2.3E-06 | 9.2E-05 | | | 2.4E+01 | | 1.4E-01 | 4.8E-02 | | | | | 2.5E-01 | |
| N-Nitroso-N-methylethylamine | | | | | | | | | | | | | | | | |
| N-Nitrosopyrrolidine | | | | | | | | | | | | | | | | |
| m-Nitrotoluene | Nitrobenzene | 1.4E+02 | 2.4E-05 | 9.8E-04 | 7.6E-02 | 8.6E-06 | 6.5E+01 | | 3.9E-01 | 1.3E-01 | 2.1E+06 | 8.2E-06 | 5.2E+04 | | 3.3E-01 | |
| o-Nitrotoluene | Nitrobenzene | 1.4E+02 | 2.4E-05 | 9.8E-04 | 7.6E-02 | 8.6E-06 | 6.5E+01 | | 3.9E-01 | 1.3E-01 | 2.1E+06 | 8.2E-06 | 5.2E+04 | | 3.3E-01 | |
| p-Nitrotoluene | Nitrobenzene | 1.4E+02 | 2.4E-05 | 9.8E-04 | 7.6E-02 | 8.6E-06 | 6.5E+01 | | 3.9E-01 | 1.3E-01 | 2.1E+06 | 8.2E-06 | 5.2E+04 | | 3.3E-01 | |
| Norfurazon | | | | | | | | | | | | | | | | |
| NuStar | | | | | | | | | | | | | | | | |
| Octabromodiphenyl ether | | | | | | | | | | | | | | | | |
| Octahydro-1357-tetranitro-1357- tetrazocine (HMX) | | | | | | | | | | | | | | | | |
| Octamethylpyrophosphoramidate | | | | | | | | | | | | | | | | |
| Oryzalin | | | | | | | | | | | | | | | | |
| Oxadiazon | | | | | | | | | | | | | | | | |
| Oxamyl | | | | | | | | | | | | | | | | |
| Oxyfluorfen | | | | | | | | | | | | | | | | |
| Paclbutrazol | | | | | | | | | | | | | | | | |
| Paraquat | | | | | | | | | | | | | | | | |
| Parathion | | | | | | | | | | | | | | | | |
| Pebulate | | | | | | | | | | | | | | | | |
| Pendimethalin | | | | | | | | | | | | | | | | |
| Pentabromo-6-chloro cyclohexane | | | | | | | | | | | | | | | | |
| Pentabromodiphenyl ether | | | | | | | | | | | | | | | | |
| Pentachlorobenzene | | | | | | | | | | | | | | | | |
| Pentachloronitrobenzene | | | | | | | | | | | | | | | | |

**TABLE B-1
VCP REMEDIATION GOALS
PHYSICAL/CHEMICAL DATA**

| CONTAMINANT | Surrogate | MW | H | H' | Di | Dw | Koc | Kd | Kd_VF | Kd_s_to_gw | S | Da | VF_S | SAT | soil-to-gw |
|------------------------------------|----------------|---------|--------------|-----------------|---------|---------|-----------------------|-------------------------|---------|------------|---------|--------------|---------|---------|------------|
| | | (g/mol) | (atm-m3/mol) | (dimensionless) | (cm2/s) | (cm2/s) | (organics) (cm3/g) | (inorganics) (cm3/g) | (cm3/g) | (cm3/g) | (cm3/g) | (µg/L-water) | (cm2/s) | (m3/kg) | (mg/kg) |
| Pentachlorophenol | | | 2.4E-08 | 1.0E-06 | | | 5.9E+02 | | 3.6E+00 | 1.2E+00 | | | | | 1.4E+00 |
| Perchlorate | | | | | | | | | | | | | | | |
| Permethrin | | | | | | | | | | | | | | | |
| Phenmedipham | | | | | | | | | | | | | | | |
| Phenol | | | 4.0E-07 | 1.6E-05 | | | 2.9E+01 | | 1.7E-01 | 5.8E-02 | | | | | 2.6E-01 |
| Phenothiazine | | | | | | | | | | | | | | | |
| m-Phenylenediamine | | | | | | | | | | | | | | | |
| p-Phenylenediamine | | | | | | | | | | | | | | | |
| Phenylmercuric acetate | | | | | | | | | | | | | | | |
| 2-Phenylphenol | | | | | | | | | | | | | | | |
| Phorate | | | | | | | | | | | | | | | |
| Phosmet | | | | | | | | | | | | | | | |
| Phosphine | | | | | | | | | | | | | | | |
| Phosphoric acid | | | | | | | | | | | | | | | |
| Phosphorus (white) | | | | | | | | | | | | | | | |
| p-Phthalic acid | | | | | | | | | | | | | | | |
| Phthalic anhydride | | | | | | | | | | | | | | | |
| Picloram | | | | | | | | | | | | | | | |
| Pirimiphos-methyl | | | | | | | | | | | | | | | |
| Polybrominated biphenyls | | | | | | | | | | | | | | | |
| Polychlorinated biphenyls (PCBs) | | | | | | | | | | | | | | | |
| Aroclor 1016 | | | | | | | | | | | | | | | |
| Aroclor 1221 | | | | | | | | | | | | | | | |
| Aroclor 1232 | | | | | | | | | | | | | | | |
| Aroclor 1242 | | | | | | | | | | | | | | | |
| Aroclor 1248 | | | | | | | | | | | | | | | |
| Aroclor 1254 | | | | | | | | | | | | | | | |
| Aroclor 1260 | | | | | | | | | | | | | | | |
| Polychlorinated terphenyls | | | | | | | | | | | | | | | |
| Polynuclear aromatic hydrocarbons | | | | | | | | | | | | | | | |
| Acenaphthene | | 1.5E+02 | 1.6E-04 | 6.4E-03 | 4.2E-02 | 7.7E-06 | 4.9E+03 | | 2.9E+01 | 9.8E+00 | 4.2E+03 | 4.9E-07 | 2.1E+05 | | 1.0E+01 |
| Anthracene | | 1.8E+02 | 6.5E-05 | 2.7E-03 | 3.2E-02 | 7.7E-06 | 2.4E+04 | | 1.4E+02 | 4.7E+01 | 4.3E+01 | 3.3E-08 | 8.2E+05 | | 4.7E+01 |
| Benz[a]anthracene | | | 3.3E-06 | 1.4E-04 | | | 4.0E+05 | | 2.4E+03 | 8.0E+02 | | | | | 8.0E+02 |
| Benzo[b]fluoranthene | | | 1.1E-04 | 4.6E-03 | | | 1.2E+06 | | 7.4E+03 | 2.5E+03 | | | | | 2.5E+03 |
| Benzo[k]fluoranthene | | | 8.3E-07 | 3.4E-05 | | | 1.2E+06 | | 7.4E+03 | 2.5E+03 | | | | | 2.5E+03 |
| Benzo[a]pyrene | | | 1.1E-06 | 4.6E-05 | | | 1.0E+06 | | 6.1E+03 | 2.0E+03 | | | | | 2.0E+03 |
| Chrysene | | 2.3E+02 | 9.5E-05 | 3.9E-03 | 2.5E-02 | 6.2E-06 | 4.0E+05 | | 2.4E+03 | 8.0E+02 | 1.6E+00 | | | | 8.0E+02 |
| Dibenz[ah]anthracene | | | 1.5E-08 | 6.0E-07 | | | 3.8E+06 | | 2.3E+04 | 7.6E+03 | | | | | 7.6E+03 |
| Fluoranthene | | | 1.6E-05 | 6.6E-04 | | | 1.1E+05 | | 6.4E+02 | 2.1E+02 | | | | | 2.1E+02 |
| Fluorene | | 1.7E+02 | 7.7E-05 | 3.2E-03 | 6.1E-02 | 7.9E-06 | 1.4E+04 | | 8.3E+01 | 2.8E+01 | 1.9E+03 | 1.2E-07 | 4.2E+05 | | 2.8E+01 |
| Indeno[1,2,3-cd]pyrene | | | 1.6E-06 | 6.6E-05 | | | 3.5E+06 | | 2.1E+04 | 6.9E+03 | | | | | 6.9E+03 |
| Naphthalene | | 1.3E+02 | 4.8E-04 | 2.0E-02 | 5.9E-02 | 7.5E-06 | 1.2E+03 | | 7.1E+00 | 2.4E+00 | 3.1E+04 | 8.6E-06 | 5.1E+04 | | 2.6E+00 |
| Pyrene | | 2.0E+02 | 1.1E-05 | 4.5E-04 | 2.7E-02 | 7.2E-06 | 1.1E+05 | | 6.3E+02 | 2.1E+02 | 1.4E+02 | | | | 2.1E+02 |
| Prochloraz | | | | | | | | | | | | | | | |
| Profuralin | | | | | | | | | | | | | | | |
| Prometon | | | | | | | | | | | | | | | |
| Prometryn | | | | | | | | | | | | | | | |
| Pronamide | | | | | | | | | | | | | | | |
| Propachlor | | | | | | | | | | | | | | | |
| Propanil | | | | | | | | | | | | | | | |
| Propargite | | | | | | | | | | | | | | | |
| Propargyl alcohol | | | | | | | | | | | | | | | |
| Propazine | | | | | | | | | | | | | | | |
| Propham | | | | | | | | | | | | | | | |
| Propiconazole | | | | | | | | | | | | | | | |
| n-Propylbenzene | n-Butylbenzene | 1.2E+02 | 1.3E-02 | 5.4E-01 | 7.5E-02 | 7.8E-06 | 2.8E+03 | | 1.7E+01 | 5.7E+00 | 1.4E+04 | 1.2E-04 | 1.3E+04 | | 5.9E+00 |
| Propylene glycol | | | | | | | | | | | | | | | |
| Propylene glycol, monoethyl ether | | | | | | | | | | | | | | | |
| Propylene glycol, monomethyl ether | | | | | | | | | | | | | | | |
| Propylene oxide | | 5.8E+01 | 8.5E-05 | 3.5E-03 | 1.2E-01 | 1.3E-05 | 2.5E+01 | | 1.5E-01 | 4.9E-02 | 4.8E+08 | 9.0E-05 | 1.6E+04 | | 2.5E-01 |
| Pursuit | | | | | | | | | | | | | | | |
| Pydrin | | | | | | | | | | | | | | | |
| Pyridine | | | | | | | | | | | | | | | |
| Quinalphos | | | | | | | | | | | | | | | |
| Quinoline | | | | | | | | | | | | | | | |
| RDX (Cyclonite) | | | | | | | | | | | | | | | |
| Resmethrin | | | | | | | | | | | | | | | |
| Ronnel | | | | | | | | | | | | | | | |
| Rotenone | | | | | | | | | | | | | | | |
| Savey | | | | | | | | | | | | | | | |
| Selenious Acid | | | | | | | | | | | | | | | |
| Selenium | | | 0.0E+00 | 0.0E+00 | | | | 5.0E+00 | 5.0E+00 | 5.0E+00 | | | | | 5.2E+00 |

TABLE B-1
VCP REMEDIATION GOALS
PHYSICAL/CHEMICAL DATA

| CONTAMINANT | Surrogate | MW (g/mol) | H (atm-m3/mol) | H' (dimensionless) | Di (cm2/s) | Dw (cm2/s) | Koc (organics) (cm3/g) | Kd (inorganics) (cm3/g) | Kd_VF (cm3/g) | Kd_s to gw (cm3/g) | S (µg/L-water) | Da (cm2/s) | VF_S (m3/kg) | SAT (mg/kg) | soil-to-gw factor (kg/L) |
|---|------------------------|---------------|-------------------|-----------------------|---------------|---------------|------------------------------|-------------------------------|------------------|-----------------------|-------------------|---------------|-----------------|----------------|-----------------------------|
| Selenourea | | | | | | | | | | | | | | | |
| Sethoxydim | | | | | | | | | | | | | | | |
| Silver and compounds | | | 0.0E+00 | 0.0E+00 | | | | 8.3E+00 | 8.3E+00 | 8.3E+00 | | | | | 8.5E+00 |
| Simazine | | | | | | | | | | | | | | | |
| Sodium azide | | | | | | | | | | | | | | | |
| Sodium diethyldithiocarbamate | | | | | | | | | | | | | | | |
| Sodium fluoroacetate | | | | | | | | | | | | | | | |
| Sodium metavanadate | | | | | | | | | | | | | | | |
| Strontium, stable | | | | | | | | | | | | | | | |
| Strychnine | | | | | | | | | | | | | | | |
| Styrene | | 1.0E+02 | 2.8E-03 | 1.1E-01 | 7.1E-02 | 8.0E-06 | 7.8E+02 | | 4.7E+00 | 1.6E+00 | 3.1E+05 | 8.9E-05 | 1.6E+04 | | 1.8E+00 |
| 1,1'-Sulfonylbis (4-chlorobenzene) | | | | | | | | | | | | | | | |
| Sythane | | | | | | | | | | | | | | | |
| 2,3,7,8-TCDD (dioxin) | | | | | | | | | | | | | | | |
| Tebuthiuron | | | | | | | | | | | | | | | |
| Temephos | | | | | | | | | | | | | | | |
| Terbacil | | | | | | | | | | | | | | | |
| Terbufos | | | | | | | | | | | | | | | |
| Terbutryn | | | | | | | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | | | | | | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | | 1.7E+02 | 3.5E-04 | 1.4E-02 | 7.1E-02 | 7.9E-06 | 9.3E+01 | | 5.6E-01 | 1.9E-01 | 3.0E+06 | 8.1E-05 | 1.7E+04 | | 3.9E-01 |
| 1,1,2,2-Tetrachloroethane | | 1.7E+02 | 3.5E-04 | 1.4E-02 | 7.1E-02 | 7.9E-06 | 9.3E+01 | | 5.6E-01 | 1.9E-01 | 3.0E+06 | 8.1E-05 | 1.7E+04 | | 3.9E-01 |
| Tetrachloroethylene (PCE) | | 1.7E+02 | 1.8E-02 | 7.5E-01 | 7.2E-02 | 8.2E-06 | 1.6E+02 | | 9.3E-01 | 3.1E-01 | 2.0E+05 | 2.5E-03 | 3.0E+03 | | 5.8E-01 |
| 2,3,4,6-Tetrachlorophenol | | | | | | | | | | | | | | | |
| p,a,a,a-Tetrachlorotoluene | | | | | | | | | | | | | | | |
| Tetrachlorovinphos | | | | | | | | | | | | | | | |
| Tetraethylthiopyrophosphate | | | | | | | | | | | | | | | |
| Tetrahydrofuran | | 7.2E+01 | 7.0E-05 | 2.9E-03 | 9.8E-02 | 1.1E-05 | 9.5E-01 | | 5.7E-03 | 1.9E-03 | 1.0E+09 | 1.4E-04 | 1.2E+04 | | 2.0E-01 |
| Thallium and compounds+++ | | | 0.0E+00 | 0.0E+00 | | | | 7.1E+01 | 7.1E+01 | 7.1E+01 | | | | | 7.1E+01 |
| Thiobencarb | | | | | | | | | | | | | | | |
| Thiocyanate | | | | | | | | | | | | | | | |
| Thiofanox | | | | | | | | | | | | | | | |
| Thiophanate-methyl | | | | | | | | | | | | | | | |
| Thiram | | | | | | | | | | | | | | | |
| Tin and compounds | | | | | | | | | | | | | | | |
| Toluene | | 9.2E+01 | 6.6E-03 | 2.7E-01 | 8.7E-02 | 8.6E-06 | 1.8E+02 | | 1.1E+00 | 3.6E-01 | 5.3E+05 | 1.0E-03 | 4.7E+03 | | 5.9E-01 |
| Toluene-2,4-diamine | | | | | | | | | | | | | | | |
| Toluene-2,5-diamine | | | | | | | | | | | | | | | |
| Toluene-2,6-diamine | | | | | | | | | | | | | | | |
| p-Toluidine | | | | | | | | | | | | | | | |
| Toxaphene | | | 6.0E-06 | 2.5E-04 | | | 2.6E+05 | | 1.5E+03 | 5.1E+02 | | | | | 5.1E+02 |
| Tralomethrin | | | | | | | | | | | | | | | |
| Triallate | | | | | | | | | | | | | | | |
| Triasulfuron | | | | | | | | | | | | | | | |
| 1,2,4-Tribromobenzene | | | | | | | | | | | | | | | |
| Tributyltin oxide (TBTO) | | | | | | | | | | | | | | | |
| 2,4,6-Trichloroaniline | | | | | | | | | | | | | | | |
| 2,4,6-Trichloroaniline hydrochloride | | | | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | 1.8E+02 | 1.4E-03 | 5.8E-02 | 3.0E-02 | 8.2E-06 | 1.8E+03 | | 1.1E+01 | 3.6E+00 | 3.0E+05 | 8.6E-06 | 5.1E+04 | | 3.8E+00 |
| 1,1,1-Trichloroethane | | 1.3E+02 | 1.7E-02 | 7.1E-01 | 7.8E-02 | 8.8E-06 | 1.1E+02 | | 6.6E-01 | 2.2E-01 | 1.3E+06 | 3.3E-03 | 2.6E+03 | | 4.8E-01 |
| 1,1,2-Trichloroethane | | 1.3E+02 | 9.1E-04 | 3.7E-02 | 7.8E-02 | 8.8E-06 | 5.0E+01 | | 3.0E-01 | 1.0E-01 | 4.4E+06 | 3.8E-04 | 7.6E+03 | | 3.0E-01 |
| Trichloroethylene (TCE) | | 1.3E+02 | 1.0E-02 | 4.2E-01 | 7.9E-02 | 9.1E-06 | 1.7E+02 | | 1.0E+00 | 3.3E-01 | 1.1E+06 | 1.5E-03 | 3.8E+03 | | 5.7E-01 |
| Trichlorofluoromethane | | 1.4E+02 | 9.7E-02 | 4.0E+00 | 8.7E-02 | 1.3E-05 | 1.6E+02 | | 9.6E-01 | 3.2E-01 | 1.1E+06 | 1.0E-02 | 1.5E+03 | | 8.8E-01 |
| 2,4,5-Trichlorophenol | | | 4.3E-06 | 1.8E-04 | | | 1.6E+03 | | 9.6E+00 | 3.2E+00 | | | | | 3.4E+00 |
| 2,4,6-Trichlorophenol | | | 7.8E-06 | 3.2E-04 | | | 3.8E+02 | | 2.3E+00 | 7.6E-01 | | | | | 9.6E-01 |
| 2,4,5-Trichlorophenoxyacetic acid | | | | | | | | | | | | | | | |
| 2-(2,4,5-Trichlorophenoxy) propionic acid | | | | | | | | | | | | | | | |
| 1,1,2-Trichloropropane | | 1.5E+02 | 2.9E-02 | 1.2E+00 | 4.0E-02 | 9.3E-06 | 5.1E+01 | | 3.1E-01 | 1.0E-01 | 2.7E+06 | 4.0E-03 | 2.4E+03 | | 4.1E-01 |
| 1,2,3-Trichloropropane | | 1.5E+02 | 2.8E-02 | 1.1E+00 | 7.1E-02 | 7.9E-06 | 5.1E+01 | | 3.1E-01 | 1.0E-01 | 2.7E+06 | 7.0E-03 | 1.8E+03 | | 4.0E-01 |
| 1,2,3-Trichloropropene | 1,2,3-Trichloropropane | 1.5E+02 | 2.8E-02 | 1.1E+00 | 7.1E-02 | 7.9E-06 | 5.1E+01 | | 3.1E-01 | 1.0E-01 | 2.7E+06 | 7.0E-03 | 1.8E+03 | | 4.0E-01 |
| Tridiphane | | | | | | | | | | | | | | | |
| Triethylamine | Dimethylamine | 1.0E+02 | 9.0E-05 | 3.7E-03 | 1.2E-01 | 1.3E-05 | 2.2E+00 | | 1.3E-02 | 4.4E-03 | 1.0E+09 | 2.1E-04 | 1.0E+04 | | 2.0E-01 |
| Trifluralin | | | | | | | | | | | | | | | |
| Trimellitic Anhydride (TMAN) | | | | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | | 1.2E+02 | 5.7E-03 | 2.3E-01 | 7.5E-02 | 7.1E-06 | 3.7E+03 | | 2.2E+01 | 7.4E+00 | 5.7E+04 | 4.2E-05 | 2.3E+04 | | 7.7E+00 |
| 1,3,5-Trimethylbenzene | | 1.2E+02 | 7.7E-03 | 3.2E-01 | 7.5E-02 | 7.1E-06 | 8.2E+02 | | 4.9E+00 | 1.6E+00 | 4.8E+04 | 2.5E-04 | 9.4E+03 | | 1.9E+00 |
| Trimethyl phosphate | | | | | | | | | | | | | | | |
| 1,3,5-Trinitrobenzene | | | | | | | | | | | | | | | |
| Trinitrophenylmethylnitramine | | | | | | | | | | | | | | | |
| 2,4,6-Trinitrotoluene | | | | | | | | | | | | | | | |
| Triphenylphosphine oxide | | | | | | | | | | | | | | | |
| Tris(2-chloroethyl) phosphate | | | | | | | | | | | | | | | |

**TABLE B-1
VCP REMEDIATION GOALS
PHYSICAL/CHEMICAL DATA**

| CONTAMINANT | Surrogate | MW (g/mol) | H (atm-m3/mol) | H' (dimensionless) | Di (cm2/s) | Dw (cm2/s) | Koc (organics) (cm3/g) | Kd (inorganics) (cm3/g) | Kd_VF (cm3/g) | Kd_s_to_gw (cm3/g) | S (µg/L-water) | Da (cm2/s) | VF_S (m3/kg) | SAT (mg/kg) | soil-to-gw factor (kg/L) |
|----------------------------------|----------------------------------|---------------|---|-----------------------|---------------|---------------|------------------------------|-------------------------------|------------------|---------------------------------|-------------------|--|-----------------|----------------|-----------------------------|
| Uranium (chemical toxicity only) | | | | | | | | | | | | | | | |
| Vanadium and compounds | | | | | | | | | | | | | | | |
| Vernam | | | | | | | | | | | | | | | |
| Vinclozolin | | | | | | | | | | | | | | | |
| Vinyl acetate | | 8.6E+01 | 5.1E-04 | 2.1E-02 | 8.5E-02 | 9.2E-06 | 5.3E+00 | | 3.2E-02 | 1.1E-02 | 2.0E+07 | 7.0E-04 | 5.6E+03 | | 2.1E-01 |
| Vinyl bromide | Bromomethane | 1.1E+02 | 6.2E-03 | 2.6E-01 | 1.0E-01 | 1.2E-05 | 1.3E+02 | | 7.6E-01 | 2.5E-01 | 1.8E+07 | 1.5E-03 | 3.8E+03 | | 4.7E-01 |
| Vinyl chloride (residential)+++ | | 6.3E+01 | 2.7E-02 | 1.1E+00 | 1.1E-01 | 1.2E-06 | 1.9E+01 | | 1.1E-01 | 3.7E-02 | 2.8E+06 | 1.5E-02 | 1.2E+03 | | 3.4E-01 |
| Vinyl chloride (industrial)+++ | | 6.3E+01 | 2.7E-02 | 1.1E+00 | 1.1E-01 | 1.2E-06 | 1.9E+01 | | 1.1E-01 | 3.7E-02 | 2.8E+06 | 1.5E-02 | 1.2E+03 | | 3.4E-01 |
| Warfarin | | | | | | | | | | | | | | | |
| Xylenes | | 1.1E+02 | 7.3E-03 | 3.0E-01 | 7.0E-02 | 7.8E-06 | 4.1E+02 | | 2.4E+00 | 8.1E-01 | 1.6E+05 | 4.3E-04 | 7.2E+03 | | 1.0E+00 |
| Zinc | | | 0.0E+00 | 0.0E+00 | | | | | 6.2E+01 | 6.2E+01 | 6.2E+01 | | | | 6.2E+01 |
| Zinc phosphide | | | | | | | | | | | | | | | |
| Zineb | | | | | | | | | | | | | | | |
| Notes: | | | | | | | | | | | | | | | |
| g/mol | gram per mole | MW | molecular weight | | | | | | VF | volatilization factor | FA | fraction absorbed | | | |
| atm-m3/mol | atmospheres cubic meter per mole | H | Henry's Law constant | | | | | | s_to_gw | soil-to-groundwater | tau_event | event duration | | | |
| cm2/s | square centimeter per second | H' | Henry's Law constant dimensionless | | | | | | S | solubility | Kp | permeability coefficient through the stratum corneum to permeability | | | |
| cm3/g | cubic centimeters per gram | Di | diffusivity in air | | | | | | Da | apparent diffusivity | | coefficient across the viable epidermis | | | |
| µg/L-water | microgram per liter of water | Dw | diffusivity in water | | | | | | VF_S | volatilization factor for soils | | | | | |
| m3/kg | cubic meter per kilogram | Koc | soil-organic carbon-water partition coefficient | | | | | | Kp | dermal permeability coefficient | | | | | |
| mg/kg | milligram per kilogram | Kd | soil-water partition coefficient | | | | | | t_star | time to reach steady state | | | | | |

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**TABLE B-2
VCP REMEDIATION GOALS FOR SOIL**

| CONTAMINANT | RESIDENTIAL SOIL | | | | | | | |
|------------------------------|------------------------|------------------------|------------------------|---------------------|------------------------|------------------------|------------------------|---------------------|
| | Cancer Risk = 1E-06 | | | | Chronic HQ = 0.25 | | | |
| | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) |
| Acephate | | 2.3E+02 | 7.3E+01 | 5.6E+01 | | 2.8E+02 | 7.8E+01 | 6.1E+01 |
| Acetaldehyde | 1.6E+01 | | | 1.6E+01 | 3.4E+01 | | | 3.4E+01 |
| Acetochlor | | | | | | 1.4E+03 | 3.9E+02 | 3.1E+02 |
| Acetone | | | | | | | 1.8E+04 | 1.8E+04 |
| Acetone cyanohydrin | | | | | 3.1E+06 | 5.6E+01 | 1.6E+01 | 1.2E+01 |
| Acetonitrile | | | | | 4.3E+02 | | | 4.3E+02 |
| Acrolein | | | | | 7.0E-02 | | 9.8E+00 | 7.0E-02 |
| Acrylamide | 2.2E+03 | 4.5E-01 | 1.4E-01 | 1.1E-01 | | 1.4E+01 | 3.9E+00 | 3.1E+00 |
| Acrylic acid | | | | | 3.1E+05 | 3.5E+04 | 9.8E+03 | 7.5E+03 |
| Acrylonitrile | 3.8E-01 | | 1.2E+00 | 2.9E-01 | 5.5E+00 | | 2.0E+01 | 4.3E+00 |
| Alachlor | | 2.5E+01 | 8.0E+00 | 6.1E+00 | | 7.0E+02 | 2.0E+02 | 1.5E+02 |
| Alar | | | | | | 1.0E+04 | 2.9E+03 | 2.3E+03 |
| Aldicarb | | | | | | 7.0E+01 | 2.0E+01 | 1.5E+01 |
| Aldicarb sulfone | | | | | | 7.0E+01 | 2.0E+01 | 1.5E+01 |
| Aldrin | 5.9E+02 | 1.2E-01 | 3.8E-02 | 2.9E-02 | | 2.1E+00 | 5.9E-01 | 4.6E-01 |
| Ally | | | | | | 1.7E+04 | 4.9E+03 | 3.8E+03 |
| Allyl alcohol | | | | | | 3.5E+02 | 9.8E+01 | 7.6E+01 |
| Allyl chloride | | | | | 3.1E+05 | 3.5E+03 | 9.8E+02 | 7.6E+02 |
| Aluminum | | | | | 1.5E+06 | | 2.0E+04 | 1.9E+04 |
| Aluminum phosphide | | | | | | | 7.8E+00 | 7.8E+00 |
| Amdro | | | | | | 2.1E+01 | 5.9E+00 | 4.6E+00 |
| Ametryn | | | | | | 6.3E+02 | 1.8E+02 | 1.4E+02 |
| m-Aminophenol | | | | | | 4.9E+03 | 1.4E+03 | 1.1E+03 |
| 4-Aminopyridine | | | | | | 1.4E+00 | 3.9E-01 | 3.1E-01 |
| Amitraz | | | | | | 1.7E+02 | 4.9E+01 | 3.8E+01 |
| Ammonia | | | | | | | | |
| Ammonium sulfamate | | | | | | 1.4E+04 | 3.9E+03 | 3.1E+03 |
| Aniline | | 3.5E+02 | 1.1E+02 | 8.5E+01 | 3.1E+05 | 4.9E+02 | 1.4E+02 | 1.1E+02 |
| Antimony and compounds | | | | | | | 7.8E+00 | 7.8E+00 |
| Antimony pentoxide | | | | | | | 9.8E+00 | 9.8E+00 |
| Antimony potassium tartrate | | | | | | | 1.8E+01 | 1.8E+01 |
| Antimony tetroxide | | | | | | | 7.8E+00 | 7.8E+00 |
| Antimony trioxide | | | | | 6.2E+04 | | 7.8E+00 | 7.8E+00 |
| Apollo | | | | | | 9.1E+02 | 2.5E+02 | 2.0E+02 |
| Aramite | 4.1E+05 | 8.1E+01 | 2.6E+01 | 1.9E+01 | | 3.5E+03 | 9.8E+02 | 7.6E+02 |
| Arsenic (noncancer endpoint) | | | | | | 7.0E+01 | 5.9E+00 | 5.4E+00 |
| Arsenic (cancer endpoint) | 6.4E+02 | 4.5E+00 | 4.3E-01 | 3.9E-01 | | 7.0E+01 | 5.9E+00 | 5.4E+00 |
| Arsine | | | | | | | | |
| Assure | | | | | | 6.3E+02 | 1.8E+02 | 1.4E+02 |
| Asulam | | | | | | 3.5E+03 | 9.8E+02 | 7.6E+02 |
| Atrazine | | 9.1E+00 | 2.9E+00 | 2.2E+00 | | 2.4E+03 | 6.8E+02 | 5.3E+02 |
| Avermectin B1 | | | | | | 2.8E+01 | 7.8E+00 | 6.1E+00 |
| Azobenzene | 9.3E+04 | 1.8E+01 | 5.8E+00 | 4.4E+00 | | | | |
| Barium and compounds | | | | | 1.5E+05 | | 1.4E+03 | 1.4E+03 |
| Baygon | | | | | | 2.8E+02 | 7.8E+01 | 6.1E+01 |
| Bayleton | | | | | | 2.1E+03 | 5.9E+02 | 4.6E+02 |
| Baythroid | | | | | | 1.7E+03 | 4.9E+02 | 3.8E+02 |
| Benefin | | | | | | 2.1E+04 | 5.9E+03 | 4.6E+03 |
| Benomyl | | | | | | 3.5E+03 | 9.8E+02 | 7.6E+02 |

**TABLE B-2
VCP REMEDIATION GOALS FOR SOIL**

| CONTAMINANT | RESIDENTIAL SOIL | | | | | | | |
|-----------------------------------|------------------------|------------------------|------------------------|---------------------|------------------------|------------------------|------------------------|---------------------|
| | Cancer Risk = 1E-06 | | | | Chronic HQ = 0.25 | | | |
| | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) |
| Bentazon | | | | | | 2.1E+03 | 5.9E+02 | 4.6E+02 |
| Benzaldehyde | | | | | | 7.0E+03 | 2.0E+03 | 1.5E+03 |
| Benzene | 1.0E+00 | | 1.2E+01 | 9.2E-01 | 2.5E+01 | | 7.8E+01 | 1.9E+01 |
| Benzidine | 4.3E+01 | 8.8E-03 | 2.8E-03 | 2.1E-03 | | 2.1E+02 | 5.9E+01 | 4.6E+01 |
| Benzoic acid | | | | | | 2.8E+05 | 7.8E+04 | 6.1E+04 |
| Benzotrichloride | | 1.6E-01 | 4.9E-02 | 3.7E-02 | | | | |
| Benzyl alcohol | | | | | | 2.1E+04 | 5.9E+03 | 4.6E+03 |
| Benzyl chloride | | | 3.8E+00 | 3.8E+00 | 9.0E+01 | | | 9.0E+01 |
| Beryllium and compounds | 1.2E+03 | | | 1.2E+03 | 6.2E+03 | | 3.9E+01 | 3.9E+01 |
| Bidrin | | | | | | 7.0E+00 | 2.0E+00 | 1.5E+00 |
| Biphenhrin (Talstar) | | | | | | 1.0E+03 | 2.9E+02 | 2.3E+02 |
| 1,1-Biphenyl | | | | | | | 9.8E+02 | 9.8E+02 |
| Bis(2-chloroethyl)ether | 4.9E-01 | | 5.8E-01 | 2.7E-01 | | | | |
| Bis(2-chloroisopropyl)ether | 6.3E+00 | | 9.1E+00 | 3.7E+00 | | | 7.8E+02 | 7.8E+02 |
| Bis(chloromethyl)ether | 3.1E-04 | | 2.9E-03 | 2.8E-04 | | | | |
| Bis(2-chloro-1-methylethyl)ether | 6.3E+00 | | 9.1E+00 | 3.7E+00 | | | 7.8E+02 | 7.8E+02 |
| Bis(2-ethylhexyl)phthalate (DEHP) | | 1.4E+02 | 4.6E+01 | 3.5E+01 | | 1.4E+03 | 3.9E+02 | 3.1E+02 |
| Bisphenol A | | | | | | 3.5E+03 | 9.8E+02 | 7.6E+02 |
| Boron | | | | | 6.2E+06 | | 1.8E+03 | 1.8E+03 |
| Boron trifluoride | | | | | | | | |
| Bromate | | | 9.1E-01 | 9.1E-01 | | | 7.8E+01 | 7.8E+01 |
| Bromobenzene | | | | | 1.9E+01 | | 3.9E+02 | 1.8E+01 |
| Bromodichloromethane | | | 1.0E+01 | 1.0E+01 | | | 3.9E+02 | 3.9E+02 |
| Bromoform (tribromomethane) | 2.6E+06 | 2.6E+02 | 8.1E+01 | 6.1E+01 | | 1.4E+03 | 3.9E+02 | 3.1E+02 |
| Bromomethane | | | | | 2.8E+00 | | 2.7E+01 | 2.5E+00 |
| Bromophos | | | | | | 3.5E+02 | 9.8E+01 | 7.6E+01 |
| Bromoxnil | | | | | | 1.4E+03 | 3.9E+02 | 3.1E+02 |
| Bromoxnil octanoate | | | | | | 1.4E+03 | 3.9E+02 | 3.1E+02 |
| 1,3-Butadiene | 9.2E-02 | | | 9.2E-02 | 5.9E-01 | | | 5.9E-01 |
| 1-Butanol | | | | | 2.8E+06 | 7.0E+03 | 2.0E+03 | 1.5E+03 |
| Butylate | | | | | | 3.5E+03 | 9.8E+02 | 7.6E+02 |
| n-Butylbenzene | | | | | | | 7.8E+02 | 7.8E+02 |
| sec-Butylbenzene | | | | | | | 7.8E+02 | 7.8E+02 |
| tert-Butylbenzene | | | | | | | 7.8E+02 | 7.8E+02 |
| Butyl benzyl phthalate | | | | | | 1.4E+04 | 3.9E+03 | 3.1E+03 |
| Butylphthalyl butylglycolate | | | | | | 7.0E+04 | 2.0E+04 | 1.5E+04 |
| Cacodylic acid | | 8.1E+00 | 2.6E+00 | 1.9E+00 | | 2.1E+01 | 5.9E+00 | 4.6E+00 |
| Cadmium and compounds+++ | 1.6E+03 | | | 1.6E+03 | | 1.7E+02 | 9.8E+00 | 9.3E+00 |
| Caprolactam | | | | | | 3.5E+04 | 9.8E+03 | 7.6E+03 |
| Captafol | | 2.4E+02 | 7.4E+01 | 5.6E+01 | | 1.4E+02 | 3.9E+01 | 3.1E+01 |
| Captan | | 5.8E+02 | 1.8E+02 | 1.4E+02 | | 9.1E+03 | 2.5E+03 | 2.0E+03 |
| Carbaryl | | | | | | 7.0E+03 | 2.0E+03 | 1.5E+03 |
| Carbazole | | 1.0E+02 | 3.2E+01 | 2.4E+01 | | | | |
| Carbofuran | | | | | | 3.5E+02 | 9.8E+01 | 7.6E+01 |
| Carbon disulfide | | | | | 2.6E+02 | | 2.0E+03 | 2.3E+02 |
| Carbon tetrachloride | 3.9E-01 | | 4.9E+00 | 3.6E-01 | 1.3E+00 | | 1.4E+01 | 1.2E+00 |
| Carbosulfan | | | | | | 7.0E+02 | 2.0E+02 | 1.5E+02 |
| Carboxin | | | | | | 7.0E+03 | 2.0E+03 | 1.5E+03 |
| Chloramben | | | | | | 1.0E+03 | 2.9E+02 | 2.3E+02 |

**TABLE B-2
VCP REMEDIATION GOALS FOR SOIL**

| CONTAMINANT | RESIDENTIAL SOIL | | | | | | | |
|--|------------------------|------------------------|------------------------|---------------------|------------------------|------------------------|------------------------|---------------------|
| | Cancer Risk = 1E-06 | | | | Chronic HQ = 0.25 | | | |
| | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) |
| Chloranil | | 5.0E+00 | 1.6E+00 | 1.2E+00 | | | | |
| Chlordane | 2.9E+04 | 1.4E+01 | 1.8E+00 | 1.6E+00 | 2.2E+05 | 8.7E+01 | 9.8E+00 | 8.8E+00 |
| Chlorimuron-ethyl | | | | | | 1.4E+03 | 3.9E+02 | 3.1E+02 |
| Chlorine | | | | | | | 2.0E+03 | 2.0E+03 |
| Chlorine dioxide | | | | | | | 5.9E+02 | 5.9E+02 |
| Chloroacetic acid | | | | | | 1.4E+02 | 3.9E+01 | 3.1E+01 |
| 2-Chloroacetophenone | | | | | 2.3E-02 | | | 2.3E-02 |
| 4-Chloroaniline | | | | | | 2.8E+02 | 7.8E+01 | 6.1E+01 |
| Chlorobenzene | | | | | 1.1E+02 | | 3.9E+02 | 8.9E+01 |
| Chlorobenzilate | 3.7E+04 | 7.5E+00 | 2.4E+00 | 1.8E+00 | | 1.4E+03 | 3.9E+02 | 3.1E+02 |
| p-Chlorobenzoic acid | | | | | | 1.4E+04 | 3.9E+03 | 3.1E+03 |
| 4-Chlorobenzotrifluoride | | | | | | 1.4E+03 | 3.9E+02 | 3.1E+02 |
| 2-Chloro-1,3-butadiene | | | | | 2.5E+00 | | 3.9E+02 | 2.5E+00 |
| 1-Chlorobutane | | | | | | | 7.8E+03 | 7.8E+03 |
| 1-Chloro-1,1-difluoroethane | | | | | 1.6E+03 | | | 1.6E+03 |
| Chlorodifluoromethane | | | | | 1.6E+03 | | | 1.6E+03 |
| Chloroethane | | | 2.2E+02 | 2.2E+02 | 4.1E+03 | | 7.8E+03 | 2.7E+03 |
| Chloroform | 3.3E-01 | | | 3.3E-01 | 3.7E+01 | | 2.0E+02 | 3.1E+01 |
| Chloromethane | 1.9E+00 | | 4.9E+01 | 1.8E+00 | 3.3E+01 | | | 3.3E+01 |
| 4-Chloro-2-methylaniline | | 3.5E+00 | 1.1E+00 | 8.4E-01 | | | | |
| 4-Chloro-2-methylaniline hydrochloride | | 4.4E+00 | 1.4E+00 | 1.1E+00 | | | | |
| beta-Chloronaphthalene | | | | | | | 1.6E+03 | 1.6E+03 |
| o-Chloronitrobenzene | | | 6.6E+01 | 6.6E+01 | 9.4E-01 | | 2.0E+01 | 9.0E-01 |
| p-Chloronitrobenzene | | | 9.5E+01 | 9.5E+01 | 8.1E+00 | | 2.0E+01 | 5.7E+00 |
| 2-Chlorophenol | | | | | | | 9.8E+01 | 9.8E+01 |
| 2-Chloropropane | | | | | 1.3E+02 | | | 1.3E+02 |
| Chloroethanol | | 1.8E+02 | 5.8E+01 | 4.4E+01 | | 1.0E+03 | 2.9E+02 | 2.3E+02 |
| o-Chlorotoluene | | | | | | | 3.9E+02 | 3.9E+02 |
| Chlorpropham | | | | | | 1.4E+04 | 3.9E+03 | 3.1E+03 |
| Chlorpyrifos | | | | | | 2.1E+02 | 5.9E+01 | 4.6E+01 |
| Chlorpyrifos-methyl | | | | | | 7.0E+02 | 2.0E+02 | 1.5E+02 |
| Chlorsulfuron | | | | | | 3.5E+03 | 9.8E+02 | 7.6E+02 |
| Chlorthiophos | | | | | | 5.6E+01 | 1.6E+01 | 1.2E+01 |
| Total Chromium (1:6 ratio Cr VI:Cr III)+++ | 3.4E+01 | | | 3.4E+01 | | | | |
| Chromium III | | | | | | | 2.9E+04 | 2.9E+04 |
| Chromium VI+++ | 2.4E+02 | | | 2.4E+02 | 2.5E+03 | | 5.9E+01 | 5.7E+01 |
| Cobalt | 1.0E+03 | | | 1.0E+03 | 6.2E+03 | | 3.9E+02 | 3.7E+02 |
| Coke Oven Emissions | 4.6E+03 | | | 4.6E+03 | | | | |
| Copper and compounds | | | | | | | 7.8E+02 | 7.8E+02 |
| Crotonaldehyde | | | 3.4E-01 | 3.4E-01 | | | | |
| Cumene (isopropylbenzene) | | | | | 4.4E+02 | | 2.0E+03 | 3.6E+02 |
| Cyanazine | | 2.4E+00 | 7.6E-01 | 5.8E-01 | | 1.4E+02 | 3.9E+01 | 3.1E+01 |
| Cyanide (free) | | | | | | 1.4E+03 | 3.9E+02 | 3.1E+02 |
| Cyanide (hydrogen) | | | | | 7.4E+00 | | 3.9E+02 | 7.3E+00 |
| Cyanogen | | | | | | | 7.8E+02 | 7.8E+02 |
| Cyanogen bromide | | | | | | | 1.8E+03 | 1.8E+03 |
| Cyanogen chloride | | | | | | | 9.8E+02 | 9.8E+02 |
| Cyclohexane | | | | | 2.0E+03 | | | 2.0E+03 |
| Cyclohexanone | | | | | | 3.5E+05 | 9.8E+04 | 7.6E+04 |

**TABLE B-2
VCP REMEDIATION GOALS FOR SOIL**

| CONTAMINANT | RESIDENTIAL SOIL | | | | | | | |
|--|------------------------|------------------------|------------------------|---------------------|------------------------|------------------------|------------------------|---------------------|
| | Cancer Risk = 1E-06 | | | | Chronic HQ = 0.25 | | | |
| | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) |
| Cyclohexylamine | | | | | | 1.4E+04 | 3.9E+03 | 3.1E+03 |
| Cyhalothrin/Karate | | | | | | 3.5E+02 | 9.8E+01 | 7.6E+01 |
| Cypermethrin | | | | | | 7.0E+02 | 2.0E+02 | 1.5E+02 |
| Cyromazine | | | | | | 5.2E+02 | 1.5E+02 | 1.1E+02 |
| Dacthal | | | | | | 7.0E+02 | 2.0E+02 | 1.5E+02 |
| Dalapon | | | | | | 2.1E+03 | 5.9E+02 | 4.6E+02 |
| Danitol | | | | | | 1.7E+03 | 4.9E+02 | 3.8E+02 |
| DDD | | 2.8E+01 | 2.7E+00 | 2.4E+00 | | | | |
| DDE | | 2.0E+01 | 1.9E+00 | 1.7E+00 | | | | |
| DDT | 3.0E+04 | 2.0E+01 | 1.9E+00 | 1.7E+00 | | 1.2E+02 | 9.8E+00 | 9.0E+00 |
| Decabromodiphenyl ether | | | | | | 7.0E+02 | 2.0E+02 | 1.5E+02 |
| Demeton | | | | | | 2.8E+00 | 7.8E-01 | 6.1E-01 |
| Diallate | | 3.3E+01 | 1.0E+01 | 8.0E+00 | | | | |
| Diazinon | | | | | | 6.3E+01 | 1.8E+01 | 1.4E+01 |
| Dibenzofuran | | | | | | | 3.9E+01 | 3.9E+01 |
| 1,4-Dibromobenzene | | | | | | 7.0E+02 | 2.0E+02 | 1.5E+02 |
| Dibromochloromethane | | | 7.6E+00 | 7.6E+00 | | | 3.9E+02 | 3.9E+02 |
| 1,2-Dibromo-3-chloropropane | 4.2E+06 | | 4.6E-01 | 4.6E-01 | 6.2E+04 | | | 6.2E+04 |
| 1,2-Dibromoethane | 1.2E-01 | | 7.5E-03 | 7.1E-03 | 5.6E-01 | | | 5.6E-01 |
| Dibutyl phthalate | | | | | | 7.0E+03 | 2.0E+03 | 1.5E+03 |
| Dicamba | | | | | | 2.1E+03 | 5.9E+02 | 4.6E+02 |
| 1,2-Dichlorobenzene | | | | | 8.9E+02 | | 1.8E+03 | 5.9E+02 |
| 1,3-Dichlorobenzene | | | | | 3.6E+01 | | 2.0E+01 | 1.3E+01 |
| 1,4-Dichlorobenzene | | | 2.7E+01 | 2.7E+01 | 3.2E+03 | | 4.7E+01 | 4.6E+01 |
| 3,3-Dichlorobenzidine | | 4.5E+00 | 1.4E+00 | 1.1E+00 | | | | |
| 4,4'-Dichlorobenzophenone | | | | | | 2.1E+03 | 5.9E+02 | 4.6E+02 |
| 1,4-Dichloro-2-butene | 1.4E-02 | | | 1.4E-02 | | | | |
| Dichlorodifluoromethane | | | | | 6.5E+01 | | 3.9E+03 | 6.4E+01 |
| 1,1-Dichloroethane | | | | | 3.7E+02 | | 2.0E+03 | 3.1E+02 |
| 1,2-Dichloroethane | 4.3E-01 | | 7.0E+00 | 4.0E-01 | 5.9E+00 | | 3.9E+02 | 5.8E+00 |
| 1,1-Dichloroethylene | | | | | 8.8E+01 | | 9.8E+02 | 8.0E+01 |
| 1,2-Dichloroethylene (cis) | | | | | | | 2.0E+02 | 2.0E+02 |
| 1,2-Dichloroethylene (trans) | | | | | | | 3.9E+02 | 3.9E+02 |
| 2,4-Dichlorophenol | | | | | | 2.1E+02 | 5.9E+01 | 4.6E+01 |
| 4-(2,4-Dichlorophenoxy)butyric Acid (2,4-DB) | | | | | | 5.6E+02 | 1.6E+02 | 1.2E+02 |
| 2,4-Dichlorophenoxyacetic Acid (2,4-D) | | | | | | 1.4E+03 | 2.0E+02 | 1.7E+02 |
| 1,2-Dichloropropane | | | 9.4E+00 | 9.4E+00 | 4.4E+00 | | | 4.4E+00 |
| 1,3-Dichloropropene | 1.3E+00 | | 6.4E+00 | 1.1E+00 | 1.1E+01 | | 5.9E+02 | 1.1E+01 |
| 2,3-Dichloropropanol | | | | | | 2.1E+02 | 5.9E+01 | 4.6E+01 |
| Dichlorvos | | 7.0E+00 | 2.2E+00 | 1.7E+00 | 1.5E+05 | 3.5E+01 | 9.8E+00 | 7.6E+00 |
| Dicofol | | 4.6E+00 | 1.5E+00 | 1.1E+00 | | | | |
| Dicyclopentadiene | | | | | 3.7E-01 | | 5.9E+02 | 3.7E-01 |
| Dieldrin | 6.3E+02 | 1.3E-01 | 4.0E-02 | 3.0E-02 | | 3.5E+00 | 9.8E-01 | 7.6E-01 |
| Diethylene glycol, monobutyl ether | | | | | 6.2E+06 | 7.0E+02 | 2.0E+02 | 1.5E+02 |
| Diethylene glycol, monoethyl ether | | | | | 9.3E+05 | 4.2E+03 | 1.2E+03 | 9.2E+02 |
| Diethylformamide | | | | | | 2.8E+01 | 7.8E+00 | 6.1E+00 |
| Di(2-ethylhexyl)adipate | | 1.7E+03 | 5.3E+02 | 4.0E+02 | | 4.2E+04 | 1.2E+04 | 9.2E+03 |
| Diethyl phthalate | | | | | | 5.6E+04 | 1.6E+04 | 1.2E+04 |
| Diethylstilbestrol | | 4.3E-04 | 1.4E-04 | 1.0E-04 | | | | |

**TABLE B-2
VCP REMEDIATION GOALS FOR SOIL**

| CONTAMINANT | RESIDENTIAL SOIL | | | | | | | |
|--|------------------------|------------------------|------------------------|---------------------|------------------------|------------------------|------------------------|---------------------|
| | Cancer Risk = 1E-06 | | | | Chronic HQ = 0.25 | | | |
| | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) |
| Difenzoquat (Avenge) | | | | | | 5.6E+03 | 1.6E+03 | 1.2E+03 |
| Diflubenzuron | | | | | | 1.4E+03 | 3.9E+02 | 3.1E+02 |
| 1,1-Difluoroethane | | | | | 1.2E+10 | | | 1.2E+10 |
| Diisononyl phthalate | | | | | | 1.4E+03 | 3.9E+02 | 3.1E+02 |
| Diisopropyl methylphosphonate | | | | | | 5.6E+03 | 1.6E+03 | 1.2E+03 |
| Dimethipin | | | | | | 1.4E+03 | 3.9E+02 | 3.1E+02 |
| Dimethoate | | | | | | 1.4E+01 | 3.9E+00 | 3.1E+00 |
| 3,3'-Dimethoxybenzidine | | 1.4E+02 | 4.6E+01 | 3.5E+01 | | | | |
| Dimethylamine | | | | | 5.4E-02 | | | 5.4E-02 |
| N-N-Dimethylaniline | | | | | | 1.4E+02 | 3.9E+01 | 3.1E+01 |
| 2,4-Dimethylaniline | | 2.7E+00 | 8.5E-01 | 6.5E-01 | | | | |
| 2,4-Dimethylaniline hydrochloride | | 3.5E+00 | 1.1E+00 | 8.4E-01 | | | | |
| 3,3'-Dimethylbenzidine | | 8.8E-01 | 2.8E-01 | 2.1E-01 | | | | |
| N,N-Dimethylformamide | | | | | 9.3E+06 | 7.0E+03 | 2.0E+03 | 1.5E+03 |
| Dimethylphenethylamine | | | | | | 7.0E+01 | 2.0E+01 | 1.5E+01 |
| 2,4-Dimethylphenol | | | | | | 1.4E+03 | 3.9E+02 | 3.1E+02 |
| 2,6-Dimethylphenol | | | | | | 4.2E+01 | 1.2E+01 | 9.2E+00 |
| 3,4-Dimethylphenol | | | | | | 7.0E+01 | 2.0E+01 | 1.5E+01 |
| Dimethyl phthalate | | | | | | 7.0E+05 | 2.0E+05 | 1.5E+05 |
| Dimethyl terephthalate | | | | | | 7.0E+03 | 2.0E+03 | 1.5E+03 |
| 4,6-Dinitro-o-cyclohexyl phenol | | | | | | 1.4E+02 | 3.9E+01 | 3.1E+01 |
| 1,2-Dinitrobenzene | | | | | | 7.0E+00 | 2.0E+00 | 1.5E+00 |
| 1,3-Dinitrobenzene | | | | | | 7.0E+00 | 2.0E+00 | 1.5E+00 |
| 1,4-Dinitrobenzene | | | | | | 7.0E+00 | 2.0E+00 | 1.5E+00 |
| 2,4-Dinitrophenol | | | | | | 1.4E+02 | 3.9E+01 | 3.1E+01 |
| Dinitrotoluene mixture | | 3.0E+00 | 9.4E-01 | 7.1E-01 | | | | |
| 2,4-Dinitrotoluene | | | | | | 1.4E+02 | 3.9E+01 | 3.1E+01 |
| 2,6-Dinitrotoluene | | | | | | 7.0E+01 | 2.0E+01 | 1.5E+01 |
| Dinoseb | | | | | | 7.0E+01 | 2.0E+01 | 1.5E+01 |
| di-n-Octyl phthalate | | | | | | 2.8E+03 | 7.8E+02 | 6.1E+02 |
| 1,4-Dioxane | | 1.8E+02 | 5.8E+01 | 4.4E+01 | | | | |
| Dioxin (2,3,7,8-TCDD) | 8.7E+02 | 4.5E-05 | 4.3E-06 | 3.9E-06 | | | | |
| Diphenamid | | | | | | 2.1E+03 | 5.9E+02 | 4.6E+02 |
| Diphenylamine | | | | | | 1.7E+03 | 4.9E+02 | 3.8E+02 |
| N,N-Diphenyl-1,4 benzenediamine (DPPD) | | | | | | 2.1E+01 | 5.9E+00 | 4.6E+00 |
| 1,2-Diphenylhydrazine | 1.3E+04 | 2.5E+00 | 8.0E-01 | 6.1E-01 | | | | |
| Diphenyl sulfone | | | | | | 2.1E+02 | 5.9E+01 | 4.6E+01 |
| Diquat | | | | | | 1.5E+02 | 4.3E+01 | 3.4E+01 |
| Direct black 38 | | 2.4E-01 | 7.4E-02 | 5.6E-02 | | | | |
| Direct blue 6 | | 2.5E-01 | 7.9E-02 | 6.0E-02 | | | | |
| Direct brown 95 | | 2.2E-01 | 6.9E-02 | 5.2E-02 | | | | |
| Disulfoton | | | | | | 2.8E+00 | 7.8E-01 | 6.1E-01 |
| 1,4-Dithiane | | | | | | 7.0E+02 | 2.0E+02 | 1.5E+02 |
| Diuron | | | | | | 1.4E+02 | 3.9E+01 | 3.1E+01 |
| Dodine | | | | | | 2.8E+02 | 7.8E+01 | 6.1E+01 |
| Dysprosium | | | | | | | 3.9E+03 | 3.9E+03 |
| Endosulfan | | | | | | 4.2E+02 | 1.2E+02 | 9.2E+01 |
| Endothall | | | | | | 1.4E+03 | 3.9E+02 | 3.1E+02 |
| Endrin | | | | | | 2.1E+01 | 5.9E+00 | 4.6E+00 |

**TABLE B-2
VCP REMEDIATION GOALS FOR SOIL**

| CONTAMINANT | RESIDENTIAL SOIL | | | | | | | |
|--|------------------------|------------------------|------------------------|---------------------|------------------------|------------------------|------------------------|---------------------|
| | Cancer Risk = 1E-06 | | | | Chronic HQ = 0.25 | | | |
| | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) |
| Epichlorohydrin | 4.2E+01 | | 6.5E+01 | 2.6E+01 | 5.4E+00 | | 3.9E+01 | 4.8E+00 |
| 1,2-Epoxybutane | | | | | 6.2E+06 | | | 6.2E+06 |
| EPTC (S-Ethyl dipropylthiocarbamate) | | | | | | 1.7E+03 | 4.9E+02 | 3.8E+02 |
| Ethephon (2-chloroethyl phosphonic acid) | | | | | | 3.5E+02 | 9.8E+01 | 7.6E+01 |
| Ethion | | | | | | 3.5E+01 | 9.8E+00 | 7.6E+00 |
| 2-Ethoxyethanol | | | | | 6.2E+07 | 2.8E+04 | 7.8E+03 | 6.1E+03 |
| 2-Ethoxyethanol acetate | | | | | | 2.1E+04 | 5.9E+03 | 4.6E+03 |
| Ethyl acetate | | | | | | | 1.8E+04 | 1.8E+04 |
| Ethyl acrylate | | | 1.3E+01 | 1.3E+01 | | | | |
| Ethylbenzene | | | | | 1.6E+03 | | 2.0E+03 | 8.9E+02 |
| Ethyl chloride | | | 2.2E+02 | 2.2E+02 | 4.1E+03 | | 7.8E+03 | 2.7E+03 |
| Ethylene cyanohydrin | | | | | | 2.1E+04 | 5.9E+03 | 4.6E+03 |
| Ethylene diamine | | | | | | 6.3E+03 | 1.8E+03 | 1.4E+03 |
| Ethylene glycol | | | | | | 1.4E+05 | 3.9E+04 | 3.1E+04 |
| Ethylene glycol, monobutyl ether | | | | | 4.0E+09 | 3.5E+04 | 9.8E+03 | 7.6E+03 |
| Ethylene oxide | 2.7E-01 | | 6.3E-01 | 1.9E-01 | | | | |
| Ethylene thiourea (ETU) | | 1.8E+01 | 5.8E+00 | 4.4E+00 | | 5.6E+00 | 1.6E+00 | 1.2E+00 |
| Ethyl ether | | | | | | | 3.9E+03 | 3.9E+03 |
| Ethyl methacrylate | | | | | | | 1.8E+03 | 1.8E+03 |
| Ethyl p-nitrophenyl phenylphosphorothioate | | | | | | 7.0E-01 | 2.0E-01 | 1.5E-01 |
| Ethylphthalyl ethyl glycolate | | | | | | 2.1E+05 | 5.9E+04 | 4.6E+04 |
| Express | | | | | | 5.6E+02 | 1.6E+02 | 1.2E+02 |
| Fenamiphos | | | | | | 1.7E+01 | 4.9E+00 | 3.8E+00 |
| Fluometuron | | | | | | 9.1E+02 | 2.5E+02 | 2.0E+02 |
| Fluoride | | | | | | 4.2E+03 | 1.2E+03 | 9.2E+02 |
| Fluoridone | | | | | | 5.6E+03 | 1.6E+03 | 1.2E+03 |
| Flurprimidol | | | | | | 1.4E+03 | 3.9E+02 | 3.1E+02 |
| Flutolanil | | | | | | 4.2E+03 | 1.2E+03 | 9.2E+02 |
| Fluvalinate | | | | | | 7.0E+02 | 2.0E+02 | 1.5E+02 |
| Folpet | | 5.8E+02 | 1.8E+02 | 1.4E+02 | | 7.0E+03 | 2.0E+03 | 1.5E+03 |
| Fomesafen | | 1.1E+01 | 3.4E+00 | 2.6E+00 | | | | |
| Fonofos | | | | | | 1.4E+02 | 3.9E+01 | 3.1E+01 |
| Formaldehyde | 2.2E+05 | | | 2.2E+05 | | 1.4E+04 | 3.9E+03 | 3.1E+03 |
| Formic acid | | | | | 9.3E+05 | 1.4E+05 | 3.9E+04 | 3.0E+04 |
| Fosetyl-al | | | | | | 2.1E+05 | 5.9E+04 | 4.6E+04 |
| Freon 113 | | | | | 1.5E+04 | | 5.9E+05 | 1.4E+04 |
| Furan | | | | | | | 2.0E+01 | 2.0E+01 |
| Furazolidone | | 5.3E-01 | 1.7E-01 | 1.3E-01 | | | | |
| Furfural | | | | | 1.5E+07 | 2.1E+02 | 5.9E+01 | 4.6E+01 |
| Furium | | 4.0E-02 | 1.3E-02 | 9.7E-03 | | | | |
| Furmecyclox | | 6.7E+01 | 2.1E+01 | 1.6E+01 | | | | |
| Glufosinate-ammonium | | | | | | 2.8E+01 | 7.8E+00 | 6.1E+00 |
| Glycidaldehyde | | | | | 3.1E+05 | 2.8E+01 | 7.8E+00 | 6.1E+00 |
| Glyphosate | | | | | | 7.0E+03 | 2.0E+03 | 1.5E+03 |
| Haloxypop-methyl | | | | | | 3.5E+00 | 9.8E-01 | 7.6E-01 |
| Harmony | | | | | | 9.1E+02 | 2.5E+02 | 2.0E+02 |
| Heptachlor | 2.2E+03 | 4.5E-01 | 1.4E-01 | 1.1E-01 | | 3.5E+01 | 9.8E+00 | 7.6E+00 |
| Heptachlor epoxide | 1.1E+03 | 2.2E-01 | 7.0E-02 | 5.3E-02 | | 9.1E-01 | 2.5E-01 | 2.0E-01 |
| Hexabromobenzene | | | | | | 1.4E+02 | 3.9E+01 | 3.1E+01 |

**TABLE B-2
VCP REMEDIATION GOALS FOR SOIL**

| CONTAMINANT | RESIDENTIAL SOIL | | | | | | | |
|---|------------------------|------------------------|------------------------|---------------------|------------------------|------------------------|------------------------|---------------------|
| | Cancer Risk = 1E-06 | | | | Chronic HQ = 0.25 | | | |
| | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) |
| Hexachlorobenzene | 6.3E+03 | 1.3E+00 | 4.0E-01 | 3.0E-01 | | 5.6E+01 | 1.6E+01 | 1.2E+01 |
| Hexachlorobutadiene | 1.3E+05 | 2.6E+01 | 8.2E+00 | 6.2E+00 | | 1.4E+01 | 3.9E+00 | 3.1E+00 |
| HCH (alpha) | 1.6E+03 | 8.0E-01 | 1.0E-01 | 9.0E-02 | | 8.7E+01 | 9.8E+00 | 8.8E+00 |
| HCH (beta) | 5.4E+03 | 2.8E+00 | 3.5E-01 | 3.2E-01 | | 3.5E+01 | 3.9E+00 | 3.5E+00 |
| HCH (gamma) Lindane | | 3.9E+00 | 4.9E-01 | 4.4E-01 | | 5.2E+01 | 5.9E+00 | 5.3E+00 |
| HCH-technical | 5.6E+03 | 2.8E+00 | 3.5E-01 | 3.2E-01 | | | | |
| Hexachlorocyclopentadiene | | | | | 6.2E+04 | 4.2E+02 | 1.2E+02 | 9.2E+01 |
| Hexachloroethane | 7.2E+05 | 1.4E+02 | 4.6E+01 | 3.5E+01 | | 7.0E+01 | 2.0E+01 | 1.5E+01 |
| Hexachlorophene | | | | | | 2.1E+01 | 5.9E+00 | 4.6E+00 |
| Hexahydro-1,3,5-trinitro-1,3,5-triazine | | 1.8E+01 | 5.8E+00 | 4.4E+00 | | 2.1E+02 | 5.9E+01 | 4.6E+01 |
| 1,6-Hexamethylene diisocyanate | | | | | 3.1E+03 | | | 3.1E+03 |
| n-Hexane | | | | | 8.5E+01 | | 2.2E+05 | 8.5E+01 |
| Hexazinone | | | | | | 2.3E+03 | 6.5E+02 | 5.0E+02 |
| Hydrazine, hydrazine sulfate | 5.9E+02 | 6.7E-01 | 2.1E-01 | 1.6E-01 | | | | |
| Hydrazine, monomethyl | 5.9E+02 | 6.7E-01 | 2.1E-01 | 1.6E-01 | | | | |
| Hydrazine, dimethyl | 5.9E+02 | 6.7E-01 | 2.1E-01 | 1.6E-01 | | | | |
| Hydrogen chloride | | | | | | | | |
| Hydrogen cyanide | | | | | 7.4E+00 | | 3.9E+02 | 7.3E+00 |
| Hydrogen sulfide | | | | | | | 5.9E+01 | 5.9E+01 |
| p-Hydroquinone | | | | | | 2.8E+03 | 7.8E+02 | 6.1E+02 |
| Imazalil | | | | | | 9.1E+02 | 2.5E+02 | 2.0E+02 |
| Imazaquin | | | | | | 1.7E+04 | 4.9E+03 | 3.8E+03 |
| Iprodione | | | | | | 2.8E+03 | 7.8E+02 | 6.1E+02 |
| Iron | | | | | | | 5.9E+03 | 5.9E+03 |
| Isobutanol | | | | | | | 5.9E+03 | 5.9E+03 |
| Isophorone | | 2.1E+03 | 6.7E+02 | 5.1E+02 | | 1.4E+04 | 3.9E+03 | 3.1E+03 |
| Isopropalin | | | | | | 1.0E+03 | 2.9E+02 | 2.3E+02 |
| Isopropyl methyl phosphonic acid | | | | | | 7.0E+03 | 2.0E+03 | 1.5E+03 |
| Isoxaben | | | | | | 3.5E+03 | 9.8E+02 | 7.6E+02 |
| Kepone | | 2.5E-01 | 8.0E-02 | 6.1E-02 | | 1.4E+01 | 3.9E+00 | 3.1E+00 |
| Lactofen | | | | | | 1.4E+02 | 3.9E+01 | 3.1E+01 |
| Lead+++ | | | | | | | | |
| Lead (tetraethyl) | | | | | | 7.0E-03 | 2.0E-03 | 1.5E-03 |
| Linuron | | | | | | 1.4E+02 | 3.9E+01 | 3.1E+01 |
| Lithium | | | | | | | 3.9E+02 | 3.9E+02 |
| Londax | | | | | | 1.4E+04 | 3.9E+03 | 3.1E+03 |
| Malathion | | | | | | 1.4E+03 | 3.9E+02 | 3.1E+02 |
| Maleic anhydride | | | | | | 7.0E+03 | 2.0E+03 | 1.5E+03 |
| Maleic hydrazide | | | | | | | 9.8E+03 | 9.8E+03 |
| Malononitrile | | | | | | 7.0E+00 | 2.0E+00 | 1.5E+00 |
| Mancozeb | | | | | | 2.1E+03 | 5.9E+02 | 4.6E+02 |
| Maneb | | 3.4E+01 | 1.1E+01 | 8.1E+00 | | 3.5E+02 | 9.8E+01 | 7.6E+01 |
| Manganese (non-food)+++ | | | | | 1.5E+04 | | 4.7E+02 | 4.6E+02 |
| Mephosfolan | | | | | | 6.3E+00 | 1.8E+00 | 1.4E+00 |
| Mepiquat | | | | | | 2.1E+03 | 5.9E+02 | 4.6E+02 |
| 2-Mercaptobenzothiazole | | 7.0E+01 | 2.2E+01 | 1.7E+01 | | 7.0E+03 | 2.0E+03 | 1.5E+03 |
| Mercury and compounds | | | | | | | 5.9E+00 | 5.9E+00 |
| Mercury (elemental) | | | | | | | | |
| Mercury (methyl) | | | | | | 7.0E+00 | 2.0E+00 | 1.5E+00 |

**TABLE B-2
VCP REMEDIATION GOALS FOR SOIL**

| CONTAMINANT | RESIDENTIAL SOIL | | | | | | | |
|--|------------------------|------------------------|------------------------|---------------------|------------------------|------------------------|------------------------|---------------------|
| | Cancer Risk = 1E-06 | | | | Chronic HQ = 0.25 | | | |
| | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) |
| Merphos | | | | | | 2.1E+00 | 5.9E-01 | 4.6E-01 |
| Merphos oxide | | | | | | 2.1E+00 | 5.9E-01 | 4.6E-01 |
| Metalaxyl | | | | | | 4.2E+03 | 1.2E+03 | 9.2E+02 |
| Methacrylonitrile | | | | | 1.9E+00 | | 2.0E+00 | 9.7E-01 |
| Methamidophos | | | | | | 3.5E+00 | 9.8E-01 | 7.6E-01 |
| Methanol | | | | | | 3.5E+04 | 9.8E+03 | 7.6E+03 |
| Methidathion | | | | | | 7.0E+01 | 2.0E+01 | 1.5E+01 |
| Methomyl | | | | | | | 4.9E+02 | 4.9E+02 |
| Methoxychlor | | | | | | 3.5E+02 | 9.8E+01 | 7.6E+01 |
| 2-Methoxyethanol | | | | | 6.2E+06 | 7.0E+01 | 2.0E+01 | 1.5E+01 |
| 2-Methoxyethanol acetate | | | | | | 1.4E+02 | 3.9E+01 | 3.1E+01 |
| 2-Methoxy-5-nitroaniline | | 4.4E+01 | 1.4E+01 | 1.1E+01 | | | | |
| Methyl acetate | | | | | | | 2.0E+04 | 2.0E+04 |
| Methyl acrylate | | | | | | | 5.9E+02 | 5.9E+02 |
| 2-Methylaniline (o-toluidine) | | 8.4E+00 | 2.7E+00 | 2.0E+00 | | | | |
| 2-Methylaniline hydrochloride | | 1.1E+01 | 3.5E+00 | 2.7E+00 | | | | |
| 2-Methyl-4-chlorophenoxyacetic acid (MCPA) | | | | | | 3.5E+01 | 9.8E+00 | 7.6E+00 |
| 4-(2-Methyl-4-chlorophenoxy) butyric acid (MCPB) | | | | | | 7.0E+02 | 2.0E+02 | 1.5E+02 |
| 2-(2-Methyl-4-chlorophenoxy) propionic acid | | | | | | 7.0E+01 | 2.0E+01 | 1.5E+01 |
| 2-(2-Methyl-1,4-chlorophenoxy) propionic acid (MCPB) | | | | | | 7.0E+01 | 2.0E+01 | 1.5E+01 |
| Methylcyclohexane | | | | | 1.8E+03 | | | 1.8E+03 |
| 4,4'-Methylenebisbenzeneamine | | 8.1E+00 | 2.6E+00 | 1.9E+00 | | | | |
| 4,4'-Methylene bis(2-chloroaniline) | 7.8E+04 | 1.6E+01 | 4.9E+00 | 3.7E+00 | | 4.9E+01 | 1.4E+01 | 1.1E+01 |
| 4,4'-Methylene bis(N,N'-dimethyl)aniline | | 4.4E+01 | 1.4E+01 | 1.1E+01 | | | | |
| Methylene bromide | | | | | | | 2.0E+02 | 2.0E+02 |
| Methylene chloride | 1.5E+01 | | 8.5E+01 | 1.3E+01 | 2.3E+03 | | 1.2E+03 | 7.8E+02 |
| 4,4'-Methylenediphenyl isocyanate | | | | | 1.9E+05 | | | 1.9E+05 |
| Methyl ethyl ketone | | | | | 3.0E+04 | | 1.2E+04 | 8.4E+03 |
| Methyl isobutyl ketone | | | | | 2.3E+04 | | 1.6E+03 | 1.5E+03 |
| Methyl mercaptan | | | | | 6.2E+05 | | | 6.2E+05 |
| Methyl methacrylate | | | | | 1.5E+03 | | 2.7E+04 | 1.4E+03 |
| 2-Methyl-5-nitroaniline | | 6.1E+01 | 1.9E+01 | 1.5E+01 | | | | |
| Methyl parathion | | | | | | 1.7E+01 | 4.9E+00 | 3.8E+00 |
| 2-Methylphenol | | | | | | 3.5E+03 | 9.8E+02 | 7.6E+02 |
| 3-Methylphenol | | | | | | 3.5E+03 | 9.8E+02 | 7.6E+02 |
| 4-Methylphenol | | | | | | 3.5E+02 | 9.8E+01 | 7.6E+01 |
| Methyl phosphonic acid | | | | | | 1.4E+03 | 3.9E+02 | 3.1E+02 |
| Methyl styrene (mixture) | | | | | 1.2E+02 | | 1.2E+02 | 6.0E+01 |
| Methyl styrene (alpha) | | | | | | | 1.4E+03 | 1.4E+03 |
| Methyl tertbutyl ether (MTBE) | 1.3E+01 | | 1.9E+02 | 1.3E+01 | 4.3E+03 | | | 4.3E+03 |
| Metolaclor (Dual) | | | | | | 1.0E+04 | 2.9E+03 | 2.3E+03 |
| Metribuzin | | | | | | 1.7E+03 | 4.9E+02 | 3.8E+02 |
| Mirex | | 1.1E+00 | 3.5E-01 | 2.7E-01 | | 1.4E+01 | 3.9E+00 | 3.1E+00 |
| Molinate | | | | | | 1.4E+02 | 3.9E+01 | 3.1E+01 |
| Molybdenum | | | | | | | 9.8E+01 | 9.8E+01 |
| Monochloramine | | | | | | 7.0E+03 | 2.0E+03 | 1.5E+03 |
| Naled | | | | | | 1.4E+02 | 3.9E+01 | 3.1E+01 |
| Napropamide | | | | | | 7.0E+03 | 2.0E+03 | 1.5E+03 |
| Nickel and compounds | | | | | | | 3.9E+02 | 3.9E+02 |

**TABLE B-2
VCP REMEDIATION GOALS FOR SOIL**

| CONTAMINANT | RESIDENTIAL SOIL | | | | | | | |
|---|------------------------|------------------------|------------------------|---------------------|------------------------|------------------------|------------------------|---------------------|
| | Cancer Risk = 1E-06 | | | | Chronic HQ = 0.25 | | | |
| | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) |
| Nickel refinery dust | 1.2E+04 | | | 1.2E+04 | | | | |
| Nickel subsulfide | 6.0E+03 | | | 6.0E+03 | | | | |
| Nitrate | | | | | | | 3.1E+04 | 3.1E+04 |
| Nitrite | | | | | | | 2.0E+03 | 2.0E+03 |
| 2-Nitroaniline | | | | | 3.1E+04 | 2.1E+02 | 5.9E+01 | 4.6E+01 |
| Nitrobenzene | | | | | 2.7E+01 | | 9.8E+00 | 7.2E+00 |
| Nitrofurantoin | | | | | | 4.9E+03 | 1.4E+03 | 1.1E+03 |
| Nitrofurazone | | 1.3E+00 | 4.3E-01 | 3.2E-01 | | | | |
| Nitroglycerin | | 1.4E+02 | 4.6E+01 | 3.5E+01 | | | | |
| Nitroguanidine | | | | | | 7.0E+03 | 2.0E+03 | 1.5E+03 |
| 2-Nitropropane | 1.1E+03 | | | 1.1E+03 | 6.2E+06 | | | 6.2E+06 |
| N-Nitrosodi-n-butylamine | 4.5E-02 | | 1.2E-01 | 3.3E-02 | | | | |
| N-Nitrosodiethanolamine | | 7.2E-01 | 2.3E-01 | 1.7E-01 | | | | |
| N-Nitrosodiethylamine | 6.7E+01 | 1.3E-02 | 4.3E-03 | 3.2E-03 | | | | |
| N-Nitrosodimethylamine | 2.1E+02 | 4.0E-02 | 1.3E-02 | 9.5E-03 | | 5.6E-01 | 1.6E-01 | 1.2E-01 |
| N-Nitrosodiphenylamine | | 4.1E+02 | 1.3E+02 | 9.9E+01 | | 1.4E+03 | 3.9E+02 | 3.1E+02 |
| N-Nitroso di-n-propylamine | | 2.9E-01 | 9.1E-02 | 6.9E-02 | | | | |
| N-Nitroso-N-methylethylamine | | 9.2E-02 | 2.9E-02 | 2.2E-02 | | | | |
| N-Nitrosopyrrolidine | 4.7E+00 | 9.6E-01 | 3.0E-01 | 2.2E-01 | | | | |
| m-Nitrotoluene | | | | | | | 3.9E+02 | 3.9E+02 |
| o-Nitrotoluene | | | 2.8E+00 | 2.8E+00 | | | 2.0E+02 | 2.0E+02 |
| p-Nitrotoluene | | | 3.8E+01 | 3.8E+01 | | | 2.0E+02 | 2.0E+02 |
| Norflurazon | | | | | | 2.8E+03 | 7.8E+02 | 6.1E+02 |
| NuStar | | | | | | 4.9E+01 | 1.4E+01 | 1.1E+01 |
| Octabromodiphenyl ether | | | | | | 2.1E+02 | 5.9E+01 | 4.6E+01 |
| Octahydro-1357-tetranitro-1357- tetrazocine (HMX) | | | | | | 3.5E+03 | 9.8E+02 | 7.6E+02 |
| Octamethylpyrophosphoramidate | | | | | | 1.4E+02 | 3.9E+01 | 3.1E+01 |
| Oryzalin | | | | | | 3.5E+03 | 9.8E+02 | 7.6E+02 |
| Oxadiazon | | | | | | 3.5E+02 | 9.8E+01 | 7.6E+01 |
| Oxamyl | | | | | | 1.7E+03 | 4.9E+02 | 3.8E+02 |
| Oxyfluorfen | | | | | | 2.1E+02 | 5.9E+01 | 4.6E+01 |
| Paclobutrazol | | | | | | 9.1E+02 | 2.5E+02 | 2.0E+02 |
| Paraquat | | | | | | 3.1E+02 | 8.8E+01 | 6.9E+01 |
| Parathion | | | | | | 4.2E+02 | 1.2E+02 | 9.2E+01 |
| Pebulate | | | | | | 3.5E+03 | 9.8E+02 | 7.6E+02 |
| Pendimethalin | | | | | | 2.8E+03 | 7.8E+02 | 6.1E+02 |
| Pentabromo-6-chloro cyclohexane | | 8.8E+01 | 2.8E+01 | 2.1E+01 | | | | |
| Pentabromodiphenyl ether | | | | | | 1.4E+02 | 3.9E+01 | 3.1E+01 |
| Pentachlorobenzene | | | | | | 5.6E+01 | 1.6E+01 | 1.2E+01 |
| Pentachloronitrobenzene | | 7.8E+00 | 2.5E+00 | 1.9E+00 | | 2.1E+02 | 5.9E+01 | 4.6E+01 |
| Pentachlorophenol | | 6.7E+00 | 5.3E+00 | 3.0E+00 | | 8.4E+02 | 5.9E+02 | 3.5E+02 |
| Perchlorate | | | | | | | 2.0E+00 | 2.0E+00 |
| Permethrin | | | | | | 3.5E+03 | 9.8E+02 | 7.6E+02 |
| Phenmedipham | | | | | | 1.7E+04 | 4.9E+03 | 3.8E+03 |
| Phenol | | | | | | 2.1E+04 | 5.9E+03 | 4.6E+03 |
| Phenothiazine | | | | | | 1.4E+02 | 3.9E+01 | 3.1E+01 |
| m-Phenylenediamine | | | | | | 4.2E+02 | 1.2E+02 | 9.2E+01 |
| p-Phenylenediamine | | | | | | 1.3E+04 | 3.7E+03 | 2.9E+03 |
| Phenylmercuric acetate | | | | | | 5.6E+00 | 1.6E+00 | 1.2E+00 |

**TABLE B-2
VCP REMEDIATION GOALS FOR SOIL**

| CONTAMINANT | RESIDENTIAL SOIL | | | | | | | |
|-----------------------------------|------------------------|------------------------|------------------------|---------------------|------------------------|------------------------|------------------------|---------------------|
| | Cancer Risk = 1E-06 | | | | Chronic HQ = 0.25 | | | |
| | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) |
| 2-Phenylphenol | | 1.0E+03 | 3.3E+02 | 2.5E+02 | | | | |
| Phorate | | | | | | 1.4E+01 | 3.9E+00 | 3.1E+00 |
| Phosmet | | | | | | 1.4E+03 | 3.9E+02 | 3.1E+02 |
| Phosphine | | | | | 9.3E+04 | 2.1E+01 | 5.9E+00 | 4.6E+00 |
| Phosphoric acid | | | | | | | | |
| Phosphorus (white) | | | | | | | 3.9E-01 | 3.9E-01 |
| p-Phthalic acid | | | | | | 7.0E+04 | 2.0E+04 | 1.5E+04 |
| Phthalic anhydride | | | | | 3.7E+07 | 1.4E+05 | 3.9E+04 | 3.1E+04 |
| Picloram | | | | | | 4.9E+03 | 1.4E+03 | 1.1E+03 |
| Pirimiphos-methyl | | | | | | 7.0E+02 | 2.0E+02 | 1.5E+02 |
| Polybrominated biphenyls | | 2.3E-01 | 7.2E-02 | 5.5E-02 | | 4.9E-01 | 1.4E-01 | 1.1E-01 |
| Polychlorinated biphenyls (PCBs) | 2.9E+04 | 7.2E-01 | 3.2E-01 | 2.2E-01 | | | | |
| Aroclor 1016 | 1.4E+05 | 2.1E+01 | 9.1E+00 | 6.3E+00 | | 3.5E+00 | 1.4E+00 | 9.8E-01 |
| Aroclor 1221 | 5.1E+03 | 7.2E-01 | 3.2E-01 | 2.2E-01 | | | | |
| Aroclor 1232 | 5.1E+03 | 7.2E-01 | 3.2E-01 | 2.2E-01 | | | | |
| Aroclor 1242 | 5.1E+03 | 7.2E-01 | 3.2E-01 | 2.2E-01 | | | | |
| Aroclor 1248 | 5.1E+03 | 7.2E-01 | 3.2E-01 | 2.2E-01 | | | | |
| Aroclor 1254 | 5.1E+03 | 7.2E-01 | 3.2E-01 | 2.2E-01 | | 1.0E+00 | 3.9E-01 | 2.8E-01 |
| Aroclor 1260 | 5.1E+03 | 7.2E-01 | 3.2E-01 | 2.2E-01 | | | | |
| Polychlorinated terphenyls | | 4.5E-01 | 1.4E-01 | 1.1E-01 | | | | |
| Polynuclear aromatic hydrocarbons | | | | | | | | |
| Acenaphthene | | | | | | | 1.2E+03 | 1.2E+03 |
| Anthracene | | | | | | | 5.9E+03 | 5.9E+03 |
| Benz[a]anthracene | | 2.1E+00 | 8.8E-01 | 6.2E-01 | | | | |
| Benzo[b]fluoranthene | | 2.1E+00 | 8.8E-01 | 6.2E-01 | | | | |
| Benzo[k]fluoranthene | | 2.1E+01 | 8.8E+00 | 6.2E+00 | | | | |
| Benzo[a]pyrene | | 2.1E-01 | 8.8E-02 | 6.2E-02 | | | | |
| Chrysene | | 2.1E+02 | 8.8E+01 | 6.2E+01 | | | | |
| Dibenz[ah]anthracene | | 2.1E-01 | 8.8E-02 | 6.2E-02 | | | | |
| Fluoranthene | | | | | | 2.1E+03 | 7.8E+02 | 5.7E+02 |
| Fluorene | | | | | | | 7.8E+02 | 7.8E+02 |
| Indeno[1,2,3-cd]pyrene | | 2.1E+00 | 8.8E-01 | 6.2E-01 | | | | |
| Naphthalene | | | | | 4.0E+01 | | 3.9E+02 | 3.6E+01 |
| Pyrene | | | | | | | 5.9E+02 | 5.9E+02 |
| Prochloraz | | 1.3E+01 | 4.3E+00 | 3.2E+00 | | 6.3E+02 | 1.8E+02 | 1.4E+02 |
| Profluralin | | | | | | 4.2E+02 | 1.2E+02 | 9.2E+01 |
| Prometon | | | | | | 1.0E+03 | 2.9E+02 | 2.3E+02 |
| Prometryn | | | | | | 2.8E+02 | 7.8E+01 | 6.1E+01 |
| Pronamide | | | | | | 5.2E+03 | 1.5E+03 | 1.1E+03 |
| Propachlor | | | | | | 9.1E+02 | 2.5E+02 | 2.0E+02 |
| Propanil | | | | | | 3.5E+02 | 9.8E+01 | 7.6E+01 |
| Propargite | | | | | | 1.4E+03 | 3.9E+02 | 3.1E+02 |
| Propargyl alcohol | | | | | | 1.4E+02 | 3.9E+01 | 3.1E+01 |
| Propazine | | | | | | 1.4E+03 | 3.9E+02 | 3.1E+02 |
| Propham | | | | | | 1.4E+03 | 3.9E+02 | 3.1E+02 |
| Propiconazole | | | | | | 9.1E+02 | 2.5E+02 | 2.0E+02 |
| n-Propylbenzene | | | | | | | 7.8E+02 | 7.8E+02 |
| Propylene glycol | | | | | 9.3E+05 | 3.5E+04 | 9.8E+03 | 7.6E+03 |
| Propylene glycol, monoethyl ether | | | | | | 4.9E+04 | 1.4E+04 | 1.1E+04 |

**TABLE B-2
VCP REMEDIATION GOALS FOR SOIL**

| CONTAMINANT | RESIDENTIAL SOIL | | | | | | | |
|------------------------------------|------------------------|------------------------|------------------------|---------------------|------------------------|------------------------|------------------------|---------------------|
| | Cancer Risk = 1E-06 | | | | Chronic HQ = 0.25 | | | |
| | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) |
| Propylene glycol, monomethyl ether | | | | | 6.2E+08 | 4.9E+04 | 1.4E+04 | 1.1E+04 |
| Propylene oxide | 1.0E+01 | | 2.7E+00 | 2.1E+00 | 1.2E+02 | | | 1.2E+02 |
| Pursuit | | | | | | 1.7E+04 | 4.9E+03 | 3.8E+03 |
| Pydrin | | | | | | 1.7E+03 | 4.9E+02 | 3.8E+02 |
| Pyridine | | | | | | 7.0E+01 | 2.0E+01 | 1.5E+01 |
| Quinalphos | | | | | | 3.5E+01 | 9.8E+00 | 7.6E+00 |
| Quinoline | | 6.7E-01 | 2.1E-01 | 1.6E-01 | | | | |
| RDX (Cyclonite) | | 1.8E+01 | 5.8E+00 | 4.4E+00 | | 2.1E+02 | 5.9E+01 | 4.6E+01 |
| Resmethrin | | | | | | 2.1E+03 | 5.9E+02 | 4.6E+02 |
| Ronnel | | | | | | 3.5E+03 | 9.8E+02 | 7.6E+02 |
| Rotenone | | | | | | 2.8E+02 | 7.8E+01 | 6.1E+01 |
| Savey | | | | | | 1.7E+03 | 4.9E+02 | 3.8E+02 |
| Selenious Acid | | | | | | 3.5E+02 | 9.8E+01 | 7.6E+01 |
| Selenium | | | | | | | 9.8E+01 | 9.8E+01 |
| Selenourea | | | | | | 3.5E+02 | 9.8E+01 | 7.6E+01 |
| Sethoxydim | | | | | | 6.3E+03 | 1.8E+03 | 1.4E+03 |
| Silver and compounds | | | | | | | 9.8E+01 | 9.8E+01 |
| Simazine | | 1.7E+01 | 5.3E+00 | 4.0E+00 | | 3.5E+02 | 9.8E+01 | 7.6E+01 |
| Sodium azide | | | | | | | 7.8E+01 | 7.8E+01 |
| Sodium diethyldithiocarbamate | | 7.5E+00 | 2.4E+00 | 1.8E+00 | | 2.1E+03 | 5.9E+02 | 4.6E+02 |
| Sodium fluoroacetate | | | | | | 1.4E+00 | 3.9E-01 | 3.1E-01 |
| Sodium metavanadate | | | | | | 7.0E+01 | 2.0E+01 | 1.5E+01 |
| Strontium, stable | | | | | | | 1.2E+04 | 1.2E+04 |
| Strychnine | | | | | | 2.1E+01 | 5.9E+00 | 4.6E+00 |
| Styrene | | | | | 4.1E+03 | | 3.9E+03 | 2.0E+03 |
| 1,1'-Sulfonylbis (4-chlorobenzene) | | | | | | 3.5E+02 | 9.8E+01 | 7.6E+01 |
| Systhane | | | | | | 1.7E+03 | 4.9E+02 | 3.8E+02 |
| 2,3,7,8-TCDD (dioxin) | 8.7E+02 | 4.5E-05 | 4.3E-06 | 3.9E-06 | | | | |
| Tebuthiuron | | | | | | 4.9E+03 | 1.4E+03 | 1.1E+03 |
| Temephos | | | | | | 1.4E+03 | 3.9E+02 | 3.1E+02 |
| Terbacil | | | | | | 9.1E+02 | 2.5E+02 | 2.0E+02 |
| Terbufos | | | | | | 1.7E+00 | 4.9E-01 | 3.8E-01 |
| Terbutryn | | | | | | 7.0E+01 | 2.0E+01 | 1.5E+01 |
| 1,2,4,5-Tetrachlorobenzene | | | | | | 2.1E+01 | 5.9E+00 | 4.6E+00 |
| 1,1,1,2-Tetrachloroethane | 5.4E+00 | | 2.5E+01 | 4.5E+00 | | | 5.9E+02 | 5.9E+02 |
| 1,1,2,2-Tetrachloroethane | 6.9E-01 | | 3.2E+00 | 5.7E-01 | | | 1.2E+03 | 1.2E+03 |
| Tetrachloroethylene (PCE) | 1.2E+00 | | 1.2E+00 | 6.0E-01 | 3.1E+02 | | 2.0E+02 | 1.2E+02 |
| 2,3,4,6-Tetrachlorophenol | | | | | | 2.1E+03 | 5.9E+02 | 4.6E+02 |
| p,a,a,a-Tetrachlorotoluene | | 1.0E-01 | 3.2E-02 | 2.4E-02 | | | | |
| Tetrachlorovinphos | | 8.4E+01 | 2.7E+01 | 2.0E+01 | | 2.1E+03 | 5.9E+02 | 4.6E+02 |
| Tetraethyldithiopyrophosphate | | | | | | 3.5E+01 | 9.8E+00 | 7.6E+00 |
| Tetrahydrofuran | 1.5E+01 | | 8.4E+01 | 1.3E+01 | 9.8E+02 | | 4.1E+03 | 7.9E+02 |
| Thallium and compounds+++ | | | | | | | 1.3E+00 | 1.3E+00 |
| Thiobencarb | | | | | | 7.0E+02 | 2.0E+02 | 1.5E+02 |
| Thiocyanate | | | | | | 7.0E+00 | 2.0E+00 | 1.5E+00 |
| Thiofanox | | | | | | 2.1E+01 | 5.9E+00 | 4.6E+00 |
| Thiophanate-methyl | | | | | | 5.6E+03 | 1.6E+03 | 1.2E+03 |
| Thiram | | | | | | 3.5E+02 | 9.8E+01 | 7.6E+01 |
| Tin and compounds | | | | | | | 1.2E+04 | 1.2E+04 |

**TABLE B-2
VCP REMEDIATION GOALS FOR SOIL**

| CONTAMINANT | RESIDENTIAL SOIL | | | | | | | |
|---|------------------------|------------------------|------------------------|---------------------|------------------------|------------------------|------------------------|---------------------|
| | Cancer Risk = 1E-06 | | | | Chronic HQ = 0.25 | | | |
| | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) |
| Toluene | | | | | 4.9E+02 | | 3.9E+03 | 4.3E+02 |
| Toluene-2,4-diamine | | 6.3E-01 | 2.0E-01 | 1.5E-01 | | | | |
| Toluene-2,5-diamine | | | | | | 4.2E+04 | 1.2E+04 | 9.2E+03 |
| Toluene-2,6-diamine | | | | | | 1.4E+04 | 3.9E+03 | 3.1E+03 |
| p-Toluidine | | 1.1E+01 | 3.4E+00 | 2.6E+00 | | | | |
| Toxaphene | 9.0E+03 | 1.8E+00 | 5.8E-01 | 4.4E-01 | | | | |
| Tralomethrin | | | | | | 5.2E+02 | 1.5E+02 | 1.1E+02 |
| Triallate | | | | | | 9.1E+02 | 2.5E+02 | 2.0E+02 |
| Triasulfuron | | | | | | 7.0E+02 | 2.0E+02 | 1.5E+02 |
| 1,2,4-Tribromobenzene | | | | | | 3.5E+02 | 9.8E+01 | 7.6E+01 |
| Tributyltin oxide (TBTO) | | | | | | 2.1E+01 | 5.9E+00 | 4.6E+00 |
| 2,4,6-Trichloroaniline | | 6.0E+01 | 1.9E+01 | 1.4E+01 | | | | |
| 2,4,6-Trichloroaniline hydrochloride | | 7.0E+01 | 2.2E+01 | 1.7E+01 | | | | |
| 1,2,4-Trichlorobenzene | | | | | 5.3E+01 | | 2.0E+02 | 4.2E+01 |
| 1,1,1-Trichloroethane | | | | | 1.5E+03 | | 5.5E+03 | 1.2E+03 |
| 1,1,2-Trichloroethane | 1.2E+00 | | 1.1E+01 | 1.0E+00 | | | 7.8E+01 | 7.8E+01 |
| Trichloroethylene (TCE) | 8.5E-02 | | 1.6E+00 | 8.0E-02 | 4.0E+01 | | 5.9E+00 | 5.1E+00 |
| Trichlorofluoromethane | | | | | 2.7E+02 | | 5.9E+03 | 2.6E+02 |
| 2,4,5-Trichlorophenol | | | | | | 7.0E+03 | 2.0E+03 | 1.5E+03 |
| 2,4,6-Trichlorophenol | 9.3E+05 | 1.8E+02 | 5.8E+01 | 4.4E+01 | | 7.0E+00 | 2.0E+00 | 1.5E+00 |
| 2,4,5-Trichlorophenoxyacetic acid | | | | | | 7.0E+02 | 2.0E+02 | 1.5E+02 |
| 2-(2,4,5-Trichlorophenoxy) propionic acid | | | | | | 5.6E+02 | 1.6E+02 | 1.2E+02 |
| 1,1,2-Trichloropropane | | | | | | | 9.8E+01 | 9.8E+01 |
| 1,2,3-Trichloropropane | | | 9.1E-02 | 9.1E-02 | 1.9E-01 | | 1.2E+02 | 1.9E-01 |
| 1,2,3-Trichloropropene | | | | | 4.6E-01 | | 2.0E+02 | 4.6E-01 |
| Tridiphane | | | | | | 2.1E+02 | 5.9E+01 | 4.6E+01 |
| Triethylamine | | | | | 1.9E+01 | | | 1.9E+01 |
| Trifluralin | | 2.6E+02 | 8.3E+01 | 6.3E+01 | | 5.2E+02 | 1.5E+02 | 1.1E+02 |
| Trimellitic Anhydride (TMAN) | | | | | 1.2E+04 | | | 1.2E+04 |
| 1,2,4-Trimethylbenzene | | | | | 3.6E+01 | | 9.8E+02 | 3.5E+01 |
| 1,3,5-Trimethylbenzene | | | | | 1.5E+01 | | 9.8E+02 | 1.5E+01 |
| Trimethyl phosphate | | 5.5E+01 | 1.7E+01 | 1.3E+01 | | | | |
| 1,3,5-Trinitrobenzene | | | | | | 2.1E+03 | 5.9E+02 | 4.6E+02 |
| Trinitrophenylmethylnitramine | | | | | | 7.0E+02 | 2.0E+02 | 1.5E+02 |
| 2,4,6-Trinitrotoluene | | 6.7E+01 | 2.1E+01 | 1.6E+01 | | 3.5E+01 | 9.8E+00 | 7.6E+00 |
| Triphenylphosphine oxide | | | | | | 1.4E+03 | 3.9E+02 | 3.1E+02 |
| Tris(2-chloroethyl) phosphate | | 1.4E+02 | 4.6E+01 | 3.5E+01 | | 2.1E+04 | 5.9E+03 | 4.6E+03 |
| Uranium (chemical toxicity only) | | | | | | | 5.9E+01 | 5.9E+01 |
| Vanadium and compounds | | | | | | | 1.8E+02 | 1.8E+02 |
| Vernam | | | | | | 7.0E+01 | 2.0E+01 | 1.5E+01 |
| Vinclozolin | | | | | | 1.7E+03 | 4.9E+02 | 3.8E+02 |
| Vinyl acetate | | | | | 2.9E+02 | | 2.0E+04 | 2.9E+02 |
| Vinyl bromide | 2.9E-01 | | | 2.9E-01 | 3.0E+00 | | | 3.0E+00 |
| Vinyl chloride (residential)+++ | 1.4E-01 | | 3.0E-01 | 9.8E-02 | 3.2E+01 | | 5.9E+01 | 2.1E+01 |
| Vinyl chloride (industrial)+++ | | | | | | | | |
| Warfarin | | | | | | 2.1E+01 | 5.9E+00 | 4.6E+00 |
| Xylenes | | | | | 1.9E+02 | | 3.9E+03 | 1.8E+02 |
| Zinc | | | | | | | 5.9E+03 | 5.9E+03 |
| Zinc phosphide | | | | | | | 5.9E+00 | 5.9E+00 |

**TABLE B-2
VCP REMEDIATION GOALS FOR SOIL**

| CONTAMINANT | RESIDENTIAL SOIL | | | | | | | |
|---------------|-------------------------|------------------------|------------------------|---------------------|------------------------|------------------------|------------------------|---------------------|
| | Cancer Risk = 1E-06 | | | | Chronic HQ = 0.25 | | | |
| | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) |
| Zineb | | | | | | 3.5E+03 | 9.8E+02 | 7.6E+02 |
| Notes: | | | | | | | | |
| mg/kg | milligram per kilogram | | | | | | | |
| HQ | hazard quotient | | | | | | | |
| soil-inhale | soil inhalation pathway | | | | | | | |
| soil-dermal | soil dermal pathway | | | | | | | |
| soil-ingest | soil ingestion pathway | | | | | | | |

**TABLE B-2
VCP REMEDIATION GOALS FOR SOIL**

| CONTAMINANT | INDUSTRIAL SOIL | | | | | | | |
|------------------------------|------------------------|------------------------|------------------------|---------------------|------------------------|------------------------|------------------------|---------------------|
| | Cancer Risk = 1E-05 | | | | Chronic HQ = 1 | | | |
| | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) |
| Acephate | | 5.0E+03 | 3.3E+03 | 2.0E+03 | | 6.2E+03 | 4.1E+03 | 2.5E+03 |
| Acetaldehyde | 2.7E+02 | | | 2.7E+02 | 1.9E+02 | | | 1.9E+02 |
| Acetochlor | | | | | | 3.1E+04 | 2.0E+04 | 1.2E+04 |
| Acetone | | | | | | | 9.2E+05 | 9.2E+05 |
| Acetone cyanohydrin | | | | | 1.7E+07 | 1.2E+03 | 8.2E+02 | 4.9E+02 |
| Acetonitrile | | | | | 2.4E+03 | | | 2.4E+03 |
| Acrolein | | | | | 3.9E-01 | | 5.1E+02 | 3.9E-01 |
| Acrylamide | 3.7E+04 | 9.6E+00 | 6.4E+00 | 3.8E+00 | | 3.1E+02 | 2.0E+02 | 1.2E+02 |
| Acrylic acid | | | | | 1.7E+06 | 7.7E+05 | 5.1E+05 | 2.6E+05 |
| Acrylonitrile | 6.3E+00 | | 5.3E+01 | 5.7E+00 | 3.1E+01 | | 1.0E+03 | 3.0E+01 |
| Alachlor | | 5.4E+02 | 3.6E+02 | 2.2E+02 | | 1.5E+04 | 1.0E+04 | 6.2E+03 |
| Alar | | | | | | 2.3E+05 | 1.5E+05 | 9.2E+04 |
| Aldicarb | | | | | | 1.5E+03 | 1.0E+03 | 6.2E+02 |
| Aldicarb sulfone | | | | | | 1.5E+03 | 1.0E+03 | 6.2E+02 |
| Aldrin | 9.9E+03 | 2.6E+00 | 1.7E+00 | 1.0E+00 | | 4.6E+01 | 3.1E+01 | 1.8E+01 |
| Ally | | | | | | 3.9E+05 | 2.6E+05 | 1.5E+05 |
| Allyl alcohol | | | | | | 7.7E+03 | 5.1E+03 | 3.1E+03 |
| Allyl chloride | | | | | 1.7E+06 | 7.7E+04 | 5.1E+04 | 3.0E+04 |
| Aluminum | | | | | 8.6E+06 | | 1.0E+06 | 9.1E+05 |
| Aluminum phosphide | | | | | | | 4.1E+02 | 4.1E+02 |
| Amdro | | | | | | 4.6E+02 | 3.1E+02 | 1.8E+02 |
| Ametryn | | | | | | 1.4E+04 | 9.2E+03 | 5.5E+03 |
| m-Aminophenol | | | | | | 1.1E+05 | 7.2E+04 | 4.3E+04 |
| 4-Aminopyridine | | | | | | 3.1E+01 | 2.0E+01 | 1.2E+01 |
| Amitraz | | | | | | 3.9E+03 | 2.6E+03 | 1.5E+03 |
| Ammonia | | | | | | | | |
| Ammonium sulfamate | | | | | | 3.1E+05 | 2.0E+05 | 1.2E+05 |
| Aniline | | 7.6E+03 | 5.0E+03 | 3.0E+03 | 1.7E+06 | 1.1E+04 | 7.2E+03 | 4.3E+03 |
| Antimony and compounds | | | | | | | 4.1E+02 | 4.1E+02 |
| Antimony pentoxide | | | | | | | 5.1E+02 | 5.1E+02 |
| Antimony potassium tartrate | | | | | | | 9.2E+02 | 9.2E+02 |
| Antimony tetroxide | | | | | | | 4.1E+02 | 4.1E+02 |
| Antimony trioxide | | | | | 3.5E+05 | | 4.1E+02 | 4.1E+02 |
| Apollo | | | | | | 2.0E+04 | 1.3E+04 | 8.0E+03 |
| Aramite | 6.8E+06 | 1.7E+03 | 1.1E+03 | 6.9E+02 | | 7.7E+04 | 5.1E+04 | 3.1E+04 |
| Arsenic (noncancer endpoint) | | | | | | 1.5E+03 | 3.1E+02 | 2.6E+02 |
| Arsenic (cancer endpoint) | 1.1E+04 | 9.6E+01 | 1.9E+01 | 1.6E+01 | | 1.5E+03 | 3.1E+02 | 2.6E+02 |
| Arsine | | | | | | | | |
| Assure | | | | | | 1.4E+04 | 9.2E+03 | 5.5E+03 |
| Asulam | | | | | | 7.7E+04 | 5.1E+04 | 3.1E+04 |
| Atrazine | | 2.0E+02 | 1.3E+02 | 7.8E+01 | | 5.4E+04 | 3.6E+04 | 2.2E+04 |
| Avermectin B1 | | | | | | 6.2E+02 | 4.1E+02 | 2.5E+02 |
| Azobenzene | 1.6E+06 | 3.9E+02 | 2.6E+02 | 1.6E+02 | | | | |
| Barium and compounds | | | | | 8.6E+05 | | 7.2E+04 | 6.6E+04 |
| Baygon | | | | | | 6.2E+03 | 4.1E+03 | 2.5E+03 |
| Bayleton | | | | | | 4.6E+04 | 3.1E+04 | 1.8E+04 |
| Baythroid | | | | | | 3.9E+04 | 2.6E+04 | 1.5E+04 |
| Benefin | | | | | | 4.6E+05 | 3.1E+05 | 1.8E+05 |
| Benomyl | | | | | | 7.7E+04 | 5.1E+04 | 3.1E+04 |

**TABLE B-2
VCP REMEDIATION GOALS FOR SOIL**

| CONTAMINANT | INDUSTRIAL SOIL | | | | | | | |
|-----------------------------------|------------------------|------------------------|------------------------|---------------------|------------------------|------------------------|------------------------|---------------------|
| | Cancer Risk = 1E-05 | | | | Chronic HQ = 1 | | | |
| | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) |
| Bentazon | | | | | | 4.6E+04 | 3.1E+04 | 1.8E+04 |
| Benzaldehyde | | | | | | 1.5E+05 | 1.0E+05 | 6.2E+04 |
| Benzene | 1.7E+01 | | 5.2E+02 | 1.6E+01 | 1.4E+02 | | 4.1E+03 | 1.4E+02 |
| Benzidine | 7.2E+02 | 1.9E-01 | 1.2E-01 | 7.5E-02 | | 4.6E+03 | 3.1E+03 | 1.8E+03 |
| Benzoic acid | | | | | | 6.2E+06 | 4.1E+06 | 2.5E+06 |
| Benzotrchloride | | 3.3E+00 | 2.2E+00 | 1.3E+00 | | | | |
| Benzyl alcohol | | | | | | 4.6E+05 | 3.1E+05 | 1.8E+05 |
| Benzyl chloride | | | 1.7E+02 | 1.7E+02 | 5.0E+02 | | | 5.0E+02 |
| Beryllium and compounds | 2.0E+04 | | | 2.0E+04 | 3.5E+04 | | 2.0E+03 | 1.9E+03 |
| Bidrin | | | | | | 1.5E+02 | 1.0E+02 | 6.2E+01 |
| Biphenhrin (Talstar) | | | | | | 2.3E+04 | 1.5E+04 | 9.2E+03 |
| 1,1-Biphenyl | | | | | | | 5.1E+04 | 5.1E+04 |
| Bis(2-chloroethyl)ether | 8.3E+00 | | 2.6E+01 | 6.3E+00 | | | | |
| Bis(2-chloroisopropyl)ether | 1.1E+02 | | 4.1E+02 | 8.4E+01 | | | 4.1E+04 | 4.1E+04 |
| Bis(chloromethyl)ether | 5.2E-03 | | 1.3E-01 | 5.0E-03 | | | | |
| Bis(2-chloro-1-methylethyl)ether | 1.1E+02 | | 4.1E+02 | 8.4E+01 | | | 4.1E+04 | 4.1E+04 |
| Bis(2-ethylhexyl)phthalate (DEHP) | | 3.1E+03 | 2.0E+03 | 1.2E+03 | | 3.1E+04 | 2.0E+04 | 1.2E+04 |
| Bisphenol A | | | | | | 7.7E+04 | 5.1E+04 | 3.1E+04 |
| Boron | | | | | 3.5E+07 | | 9.2E+04 | 9.2E+04 |
| Boron trifluoride | | | | | | | | |
| Bromate | | | 4.1E+01 | 4.1E+01 | | | 4.1E+03 | 4.1E+03 |
| Bromobenzene | | | | | 1.1E+02 | | 2.0E+04 | 1.1E+02 |
| Bromodichloromethane | | | 4.6E+02 | 4.6E+02 | | | 2.0E+04 | 2.0E+04 |
| Bromoform (tribromomethane) | 4.4E+07 | 5.5E+03 | 3.6E+03 | 2.2E+03 | | 3.1E+04 | 2.0E+04 | 1.2E+04 |
| Bromomethane | | | | | 1.5E+01 | | 1.4E+03 | 1.5E+01 |
| Bromophos | | | | | | 7.7E+03 | 5.1E+03 | 3.1E+03 |
| Bromoxynil | | | | | | 3.1E+04 | 2.0E+04 | 1.2E+04 |
| Bromoxynil octanoate | | | | | | 3.1E+04 | 2.0E+04 | 1.2E+04 |
| 1,3-Butadiene | 1.5E+00 | | | 1.5E+00 | 3.3E+00 | | | 3.3E+00 |
| 1-Butanol | | | | | 1.6E+07 | 1.5E+05 | 1.0E+05 | 6.1E+04 |
| Butylate | | | | | | 7.7E+04 | 5.1E+04 | 3.1E+04 |
| n-Butylbenzene | | | | | | | 4.1E+04 | 4.1E+04 |
| sec-Butylbenzene | | | | | | | 4.1E+04 | 4.1E+04 |
| tert-Butylbenzene | | | | | | | 4.1E+04 | 4.1E+04 |
| Butyl benzyl phthalate | | | | | | 3.1E+05 | 2.0E+05 | 1.2E+05 |
| Butylphthalyl butylglycolate | | | | | | 1.5E+06 | 1.0E+06 | 6.2E+05 |
| Cacodylic acid | | 1.7E+02 | 1.1E+02 | 6.9E+01 | | 4.6E+02 | 3.1E+02 | 1.8E+02 |
| Cadmium and compounds+++ | 2.7E+04 | | | 2.7E+04 | | 3.9E+03 | 5.1E+02 | 4.5E+02 |
| Caprolactam | | | | | | 7.7E+05 | 5.1E+05 | 3.1E+05 |
| Captafol | | 5.0E+03 | 3.3E+03 | 2.0E+03 | | 3.1E+03 | 2.0E+03 | 1.2E+03 |
| Captan | | 1.2E+04 | 8.2E+03 | 4.9E+03 | | 2.0E+05 | 1.3E+05 | 8.0E+04 |
| Carbaryl | | | | | | 1.5E+05 | 1.0E+05 | 6.2E+04 |
| Carbazole | | 2.2E+03 | 1.4E+03 | 8.6E+02 | | | | |
| Carbofuran | | | | | | 7.7E+03 | 5.1E+03 | 3.1E+03 |
| Carbon disulfide | | | | | 1.4E+03 | | 1.0E+05 | 1.4E+03 |
| Carbon tetrachloride | 6.6E+00 | | 2.2E+02 | 6.4E+00 | 7.1E+00 | | 7.2E+02 | 7.0E+00 |
| Carbosulfan | | | | | | 1.5E+04 | 1.0E+04 | 6.2E+03 |
| Carboxin | | | | | | 1.5E+05 | 1.0E+05 | 6.2E+04 |
| Chloramben | | | | | | 2.3E+04 | 1.5E+04 | 9.2E+03 |

**TABLE B-2
VCP REMEDIATION GOALS FOR SOIL**

| CONTAMINANT | INDUSTRIAL SOIL | | | | | | | |
|--|------------------------|------------------------|------------------------|---------------------|------------------------|------------------------|------------------------|---------------------|
| | Cancer Risk = 1E-05 | | | | Chronic HQ = 1 | | | |
| | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) |
| Chloranil | | 1.1E+02 | 7.1E+01 | 4.3E+01 | | | | |
| Chlordane | 4.8E+05 | 3.1E+02 | 8.2E+01 | 6.5E+01 | 1.2E+06 | 1.9E+03 | 5.1E+02 | 4.0E+02 |
| Chlorimuron-ethyl | | | | | | 3.1E+04 | 2.0E+04 | 1.2E+04 |
| Chlorine | | | | | | | 1.0E+05 | 1.0E+05 |
| Chlorine dioxide | | | | | | | 3.1E+04 | 3.1E+04 |
| Chloroacetic acid | | | | | | 3.1E+03 | 2.0E+03 | 1.2E+03 |
| 2-Chloroacetophenone | | | | | 1.3E-01 | | | 1.3E-01 |
| 4-Chloroaniline | | | | | | 6.2E+03 | 4.1E+03 | 2.5E+03 |
| Chlorobenzene | | | | | 6.4E+02 | | 2.0E+04 | 6.2E+02 |
| Chlorobenzilate | 6.2E+05 | 1.6E+02 | 1.1E+02 | 6.4E+01 | | 3.1E+04 | 2.0E+04 | 1.2E+04 |
| p-Chlorobenzoic acid | | | | | | 3.1E+05 | 2.0E+05 | 1.2E+05 |
| 4-Chlorobenzotrifluoride | | | | | | 3.1E+04 | 2.0E+04 | 1.2E+04 |
| 2-Chloro-1,3-butadiene | | | | | 1.4E+01 | | 2.0E+04 | 1.4E+01 |
| 1-Chlorobutane | | | | | | | 4.1E+05 | 4.1E+05 |
| 1-Chloro-1,1-difluoroethane | | | | | 9.1E+03 | | | 9.1E+03 |
| Chlorodifluoromethane | | | | | 9.1E+03 | | | 9.1E+03 |
| Chloroethane | | | 9.9E+03 | 9.9E+03 | 2.3E+04 | | 4.1E+05 | 2.2E+04 |
| Chloroform | 5.5E+00 | | | 5.5E+00 | 2.0E+02 | | 1.0E+04 | 2.0E+02 |
| Chloromethane | 3.1E+01 | | 2.2E+03 | 3.1E+01 | 1.8E+02 | | | 1.8E+02 |
| 4-Chloro-2-methylaniline | | 7.5E+01 | 4.9E+01 | 3.0E+01 | | | | |
| 4-Chloro-2-methylaniline hydrochloride | | 9.4E+01 | 6.2E+01 | 3.7E+01 | | | | |
| beta-Chloronaphthalene | | | | | | | 8.2E+04 | 8.2E+04 |
| o-Chloronitrobenzene | | | 3.0E+03 | 3.0E+03 | 5.3E+00 | | 1.0E+03 | 5.3E+00 |
| p-Chloronitrobenzene | | | 4.3E+03 | 4.3E+03 | 4.5E+01 | | 1.0E+03 | 4.3E+01 |
| 2-Chlorophenol | | | | | | | 5.1E+03 | 5.1E+03 |
| 2-Chloropropane | | | | | 7.0E+02 | | | 7.0E+02 |
| Chlorothalonil | | 3.9E+03 | 2.6E+03 | 1.6E+03 | | 2.3E+04 | 1.5E+04 | 9.2E+03 |
| o-Chlorotoluene | | | | | | | 2.0E+04 | 2.0E+04 |
| Chlorpropham | | | | | | 3.1E+05 | 2.0E+05 | 1.2E+05 |
| Chlorpyrifos | | | | | | 4.6E+03 | 3.1E+03 | 1.8E+03 |
| Chlorpyrifos-methyl | | | | | | 1.5E+04 | 1.0E+04 | 6.2E+03 |
| Chlorsulfuron | | | | | | 7.7E+04 | 5.1E+04 | 3.1E+04 |
| Chlorthiophos | | | | | | 1.2E+03 | 8.2E+02 | 4.9E+02 |
| Total Chromium (1:6 ratio Cr VI:Cr III)+++ | 5.8E+02 | | | 5.8E+02 | | | | |
| Chromium III | | | | | | | 1.5E+06 | 1.5E+06 |
| Chromium VI+++ | 4.0E+03 | | | 4.0E+03 | 1.4E+04 | | 3.1E+03 | 2.5E+03 |
| Cobalt | 1.7E+04 | | | 1.7E+04 | 3.5E+04 | | 2.0E+04 | 1.3E+04 |
| Coke Oven Emissions | 7.8E+04 | | | 7.8E+04 | | | | |
| Copper and compounds | | | | | | | 4.1E+04 | 4.1E+04 |
| Crotonaldehyde | | | 1.5E+01 | 1.5E+01 | | | | |
| Cumene (isopropylbenzene) | | | | | 2.5E+03 | | 1.0E+05 | 2.4E+03 |
| Cyanazine | | 5.2E+01 | 3.4E+01 | 2.1E+01 | | 3.1E+03 | 2.0E+03 | 1.2E+03 |
| Cyanide (free) | | | | | | 3.1E+04 | 2.0E+04 | 1.2E+04 |
| Cyanide (hydrogen) | | | | | 4.2E+01 | | 2.0E+04 | 4.1E+01 |
| Cyanogen | | | | | | | 4.1E+04 | 4.1E+04 |
| Cyanogen bromide | | | | | | | 9.2E+04 | 9.2E+04 |
| Cyanogen chloride | | | | | | | 5.1E+04 | 5.1E+04 |
| Cyclohexane | | | | | 1.1E+04 | | | 1.1E+04 |
| Cyclohexanone | | | | | | 7.7E+06 | 5.1E+06 | 3.1E+06 |

**TABLE B-2
VCP REMEDIATION GOALS FOR SOIL**

| CONTAMINANT | INDUSTRIAL SOIL | | | | | | | |
|--|------------------------|------------------------|------------------------|---------------------|------------------------|------------------------|------------------------|---------------------|
| | Cancer Risk = 1E-05 | | | | Chronic HQ = 1 | | | |
| | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) |
| Cyclohexylamine | | | | | | 3.1E+05 | 2.0E+05 | 1.2E+05 |
| Cyhalothrin/Karate | | | | | | 7.7E+03 | 5.1E+03 | 3.1E+03 |
| Cypermethrin | | | | | | 1.5E+04 | 1.0E+04 | 6.2E+03 |
| Cyromazine | | | | | | 1.2E+04 | 7.7E+03 | 4.6E+03 |
| Dacthal | | | | | | 1.5E+04 | 1.0E+04 | 6.2E+03 |
| Dalapon | | | | | | 4.6E+04 | 3.1E+04 | 1.8E+04 |
| Danitol | | | | | | 3.9E+04 | 2.6E+04 | 1.5E+04 |
| DDD | | 6.0E+02 | 1.2E+02 | 1.0E+02 | | | | |
| DDE | | 4.3E+02 | 8.4E+01 | 7.0E+01 | | | | |
| DDT | 5.0E+05 | 4.3E+02 | 8.4E+01 | 7.0E+01 | | 2.6E+03 | 5.1E+02 | 4.3E+02 |
| Decabromodiphenyl ether | | | | | | 1.5E+04 | 1.0E+04 | 6.2E+03 |
| Demeton | | | | | | 6.2E+01 | 4.1E+01 | 2.5E+01 |
| Diallate | | 7.1E+02 | 4.7E+02 | 2.8E+02 | | | | |
| Diazinon | | | | | | 1.4E+03 | 9.2E+02 | 5.5E+02 |
| Dibenzofuran | | | | | | | 2.0E+03 | 2.0E+03 |
| 1,4-Dibromobenzene | | | | | | 1.5E+04 | 1.0E+04 | 6.2E+03 |
| Dibromochloromethane | | | 3.4E+02 | 3.4E+02 | | | 2.0E+04 | 2.0E+04 |
| 1,2-Dibromo-3-chloropropane | 7.0E+07 | | 2.0E+01 | 2.0E+01 | 3.5E+05 | | | 3.5E+05 |
| 1,2-Dibromoethane | 2.0E+00 | | 3.4E-01 | 2.9E-01 | 3.2E+00 | | | 3.2E+00 |
| Dibutyl phthalate | | | | | | 1.5E+05 | 1.0E+05 | 6.2E+04 |
| Dicamba | | | | | | 4.6E+04 | 3.1E+04 | 1.8E+04 |
| 1,2-Dichlorobenzene | | | | | 5.0E+03 | | 9.2E+04 | 4.8E+03 |
| 1,3-Dichlorobenzene | | | | | 2.0E+02 | | 1.0E+03 | 1.7E+02 |
| 1,4-Dichlorobenzene | | | 1.2E+03 | 1.2E+03 | 1.8E+04 | | 2.5E+03 | 2.2E+03 |
| 3,3-Dichlorobenzidine | | 9.6E+01 | 6.4E+01 | 3.8E+01 | | | | |
| 4,4'-Dichlorobenzophenone | | | | | | 4.6E+04 | 3.1E+04 | 1.8E+04 |
| 1,4-Dichloro-2-butene | 2.3E-01 | | | 2.3E-01 | | | | |
| Dichlorodifluoromethane | | | | | 3.6E+02 | | 2.0E+05 | 3.6E+02 |
| 1,1-Dichloroethane | | | | | 2.1E+03 | | 1.0E+05 | 2.0E+03 |
| 1,2-Dichloroethane | 7.2E+00 | | 3.1E+02 | 7.1E+00 | 3.3E+01 | | 2.0E+04 | 3.3E+01 |
| 1,1-Dichloroethylene | | | | | 4.9E+02 | | 5.1E+04 | 4.9E+02 |
| 1,2-Dichloroethylene (cis) | | | | | | | 1.0E+04 | 1.0E+04 |
| 1,2-Dichloroethylene (trans) | | | | | | | 2.0E+04 | 2.0E+04 |
| 2,4-Dichlorophenol | | | | | | 4.6E+03 | 3.1E+03 | 1.8E+03 |
| 4-(2,4-Dichlorophenoxy)butyric Acid (2,4-DB) | | | | | | 1.2E+04 | 8.2E+03 | 4.9E+03 |
| 2,4-Dichlorophenoxyacetic Acid (2,4-D) | | | | | | 3.1E+04 | 1.0E+04 | 7.7E+03 |
| 1,2-Dichloropropane | | | 4.2E+02 | 4.2E+02 | 2.5E+01 | | | 2.5E+01 |
| 1,3-Dichloropropene | 2.2E+01 | | 2.9E+02 | 2.1E+01 | 6.3E+01 | | 3.1E+04 | 6.3E+01 |
| 2,3-Dichloropropanol | | | | | | 4.6E+03 | 3.1E+03 | 1.8E+03 |
| Dichlorvos | | 1.5E+02 | 9.9E+01 | 5.9E+01 | 8.6E+05 | 7.7E+02 | 5.1E+02 | 3.1E+02 |
| Dicofol | | 9.9E+01 | 6.5E+01 | 3.9E+01 | | | | |
| Dicyclopentadiene | | | | | 2.1E+00 | | 3.1E+04 | 2.1E+00 |
| Dieldrin | 1.1E+04 | 2.7E+00 | 1.8E+00 | 1.1E+00 | | 7.7E+01 | 5.1E+01 | 3.1E+01 |
| Diethylene glycol, monobutyl ether | | | | | 3.5E+07 | 1.5E+04 | 1.0E+04 | 6.2E+03 |
| Diethylene glycol, monoethyl ether | | | | | 5.2E+06 | 9.3E+04 | 6.1E+04 | 3.7E+04 |
| Diethylformamide | | | | | | 6.2E+02 | 4.1E+02 | 2.5E+02 |
| Di(2-ethylhexyl)adipate | | 3.6E+04 | 2.4E+04 | 1.4E+04 | | 9.3E+05 | 6.1E+05 | 3.7E+05 |
| Diethyl phthalate | | | | | | 1.2E+06 | 8.2E+05 | 4.9E+05 |
| Diethylstilbestrol | | 9.2E-03 | 6.1E-03 | 3.7E-03 | | | | |

**TABLE B-2
VCP REMEDIATION GOALS FOR SOIL**

| CONTAMINANT | INDUSTRIAL SOIL | | | | | | | |
|--|------------------------|------------------------|------------------------|---------------------|------------------------|------------------------|------------------------|---------------------|
| | Cancer Risk = 1E-05 | | | | Chronic HQ = 1 | | | |
| | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) |
| Difenzoquat (Avenge) | | | | | | 1.2E+05 | 8.2E+04 | 4.9E+04 |
| Diflubenzuron | | | | | | 3.1E+04 | 2.0E+04 | 1.2E+04 |
| 1,1-Difluoroethane | | | | | 6.9E+10 | | | 6.9E+10 |
| Diisononyl phthalate | | | | | | 3.1E+04 | 2.0E+04 | 1.2E+04 |
| Diisopropyl methylphosphonate | | | | | | 1.2E+05 | 8.2E+04 | 4.9E+04 |
| Dimethipin | | | | | | 3.1E+04 | 2.0E+04 | 1.2E+04 |
| Dimethoate | | | | | | 3.1E+02 | 2.0E+02 | 1.2E+02 |
| 3,3'-Dimethoxybenzidine | | 3.1E+03 | 2.0E+03 | 1.2E+03 | | | | |
| Dimethylamine | | | | | 3.0E-01 | | | 3.0E-01 |
| N-N-Dimethylaniline | | | | | | 3.1E+03 | 2.0E+03 | 1.2E+03 |
| 2,4-Dimethylaniline | | 5.8E+01 | 3.8E+01 | 2.3E+01 | | | | |
| 2,4-Dimethylaniline hydrochloride | | 7.5E+01 | 4.9E+01 | 3.0E+01 | | | | |
| 3,3'-Dimethylbenzidine | | 1.9E+01 | 1.2E+01 | 7.5E+00 | | | | |
| N,N-Dimethylformamide | | | | | 5.2E+07 | 1.5E+05 | 1.0E+05 | 6.1E+04 |
| Dimethylphenethylamine | | | | | | 1.5E+03 | 1.0E+03 | 6.2E+02 |
| 2,4-Dimethylphenol | | | | | | 3.1E+04 | 2.0E+04 | 1.2E+04 |
| 2,6-Dimethylphenol | | | | | | 9.3E+02 | 6.1E+02 | 3.7E+02 |
| 3,4-Dimethylphenol | | | | | | 1.5E+03 | 1.0E+03 | 6.2E+02 |
| Dimethyl phthalate | | | | | | 1.5E+07 | 1.0E+07 | 6.2E+06 |
| Dimethyl terephthalate | | | | | | 1.5E+05 | 1.0E+05 | 6.2E+04 |
| 4,6-Dinitro-o-cyclohexyl phenol | | | | | | 3.1E+03 | 2.0E+03 | 1.2E+03 |
| 1,2-Dinitrobenzene | | | | | | 1.5E+02 | 1.0E+02 | 6.2E+01 |
| 1,3-Dinitrobenzene | | | | | | 1.5E+02 | 1.0E+02 | 6.2E+01 |
| 1,4-Dinitrobenzene | | | | | | 1.5E+02 | 1.0E+02 | 6.2E+01 |
| 2,4-Dinitrophenol | | | | | | 3.1E+03 | 2.0E+03 | 1.2E+03 |
| Dinitrotoluene mixture | | 6.4E+01 | 4.2E+01 | 2.5E+01 | | | | |
| 2,4-Dinitrotoluene | | | | | | 3.1E+03 | 2.0E+03 | 1.2E+03 |
| 2,6-Dinitrotoluene | | | | | | 1.5E+03 | 1.0E+03 | 6.2E+02 |
| Dinoseb | | | | | | 1.5E+03 | 1.0E+03 | 6.2E+02 |
| di-n-Octyl phthalate | | | | | | 6.2E+04 | 4.1E+04 | 2.5E+04 |
| 1,4-Dioxane | | 3.9E+03 | 2.6E+03 | 1.6E+03 | | | | |
| Dioxin (2,3,7,8-TCDD) | 1.5E+04 | 9.6E-04 | 1.9E-04 | 1.6E-04 | | | | |
| Diphenamid | | | | | | 4.6E+04 | 3.1E+04 | 1.8E+04 |
| Diphenylamine | | | | | | 3.9E+04 | 2.6E+04 | 1.5E+04 |
| N,N-Diphenyl-1,4 benzenediamine (DPPD) | | | | | | 4.6E+02 | 3.1E+02 | 1.8E+02 |
| 1,2-Diphenylhydrazine | 2.2E+05 | 5.4E+01 | 3.6E+01 | 2.2E+01 | | | | |
| Diphenyl sulfone | | | | | | 4.6E+03 | 3.1E+03 | 1.8E+03 |
| Diquat | | | | | | 3.4E+03 | 2.2E+03 | 1.4E+03 |
| Direct black 38 | | 5.0E+00 | 3.3E+00 | 2.0E+00 | | | | |
| Direct blue 6 | | 5.4E+00 | 3.5E+00 | 2.1E+00 | | | | |
| Direct brown 95 | | 4.7E+00 | 3.1E+00 | 1.9E+00 | | | | |
| Disulfoton | | | | | | 6.2E+01 | 4.1E+01 | 2.5E+01 |
| 1,4-Dithiane | | | | | | 1.5E+04 | 1.0E+04 | 6.2E+03 |
| Diuron | | | | | | 3.1E+03 | 2.0E+03 | 1.2E+03 |
| Dodine | | | | | | 6.2E+03 | 4.1E+03 | 2.5E+03 |
| Dysprosium | | | | | | | 2.0E+05 | 2.0E+05 |
| Endosulfan | | | | | | 9.3E+03 | 6.1E+03 | 3.7E+03 |
| Endothall | | | | | | 3.1E+04 | 2.0E+04 | 1.2E+04 |
| Endrin | | | | | | 4.6E+02 | 3.1E+02 | 1.8E+02 |

**TABLE B-2
VCP REMEDIATION GOALS FOR SOIL**

| CONTAMINANT | INDUSTRIAL SOIL | | | | | | | |
|--|------------------------|------------------------|------------------------|---------------------|------------------------|------------------------|------------------------|---------------------|
| | Cancer Risk = 1E-05 | | | | Chronic HQ = 1 | | | |
| | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) |
| Epichlorohydrin | 7.1E+02 | | 2.9E+03 | 5.7E+02 | 3.0E+01 | | 2.0E+03 | 3.0E+01 |
| 1,2-Epoxybutane | | | | | 3.5E+07 | | | 3.5E+07 |
| EPTC (S-Ethyl dipropylthiocarbamate) | | | | | | 3.9E+04 | 2.6E+04 | 1.5E+04 |
| Ethephon (2-chloroethyl phosphonic acid) | | | | | | 7.7E+03 | 5.1E+03 | 3.1E+03 |
| Ethion | | | | | | 7.7E+02 | 5.1E+02 | 3.1E+02 |
| 2-Ethoxyethanol | | | | | 3.5E+08 | 6.2E+05 | 4.1E+05 | 2.5E+05 |
| 2-Ethoxyethanol acetate | | | | | | 4.6E+05 | 3.1E+05 | 1.8E+05 |
| Ethyl acetate | | | | | | | 9.2E+05 | 9.2E+05 |
| Ethyl acrylate | | | 6.0E+02 | 6.0E+02 | | | | |
| Ethylbenzene | | | | | 9.2E+03 | | 1.0E+05 | 8.5E+03 |
| Ethyl chloride | | | 9.9E+03 | 9.9E+03 | 2.3E+04 | | 4.1E+05 | 2.2E+04 |
| Ethylene cyanohydrin | | | | | | 4.6E+05 | 3.1E+05 | 1.8E+05 |
| Ethylene diamine | | | | | | 1.4E+05 | 9.2E+04 | 5.5E+04 |
| Ethylene glycol | | | | | | 3.1E+06 | 2.0E+06 | 1.2E+06 |
| Ethylene glycol, monobutyl ether | | | | | 2.2E+10 | 7.7E+05 | 5.1E+05 | 3.1E+05 |
| Ethylene oxide | 4.5E+00 | | 2.8E+01 | 3.9E+00 | | | | |
| Ethylene thiourea (ETU) | | 3.9E+02 | 2.6E+02 | 1.6E+02 | | 1.2E+02 | 8.2E+01 | 4.9E+01 |
| Ethyl ether | | | | | | | 2.0E+05 | 2.0E+05 |
| Ethyl methacrylate | | | | | | | 9.2E+04 | 9.2E+04 |
| Ethyl p-nitrophenyl phenylphosphorothioate | | | | | | 1.5E+01 | 1.0E+01 | 6.2E+00 |
| Ethylphthalyl ethyl glycolate | | | | | | 4.6E+06 | 3.1E+06 | 1.8E+06 |
| Express | | | | | | 1.2E+04 | 8.2E+03 | 4.9E+03 |
| Fenamiphos | | | | | | 3.9E+02 | 2.6E+02 | 1.5E+02 |
| Fluometuron | | | | | | 2.0E+04 | 1.3E+04 | 8.0E+03 |
| Fluoride | | | | | | 9.3E+04 | 6.1E+04 | 3.7E+04 |
| Fluoridone | | | | | | 1.2E+05 | 8.2E+04 | 4.9E+04 |
| Flurprimidol | | | | | | 3.1E+04 | 2.0E+04 | 1.2E+04 |
| Flutolanil | | | | | | 9.3E+04 | 6.1E+04 | 3.7E+04 |
| Fluvalinate | | | | | | 1.5E+04 | 1.0E+04 | 6.2E+03 |
| Folpet | | 1.2E+04 | 8.2E+03 | 4.9E+03 | | 1.5E+05 | 1.0E+05 | 6.2E+04 |
| Fomesafen | | 2.3E+02 | 1.5E+02 | 9.1E+01 | | | | |
| Fonofos | | | | | | 3.1E+03 | 2.0E+03 | 1.2E+03 |
| Formaldehyde | 3.7E+06 | | | 3.7E+06 | | 3.1E+05 | 2.0E+05 | 1.2E+05 |
| Formic acid | | | | | 5.2E+06 | 3.1E+06 | 2.0E+06 | 9.9E+05 |
| Fosetyl-al | | | | | | 4.6E+06 | 3.1E+06 | 1.8E+06 |
| Freon 113 | | | | | 8.1E+04 | | 3.1E+07 | 8.1E+04 |
| Furan | | | | | | | 1.0E+03 | 1.0E+03 |
| Furazolidone | | 1.1E+01 | 7.5E+00 | 4.5E+00 | | | | |
| Furfural | | | | | 8.6E+07 | 4.6E+03 | 3.1E+03 | 1.8E+03 |
| Furium | | 8.7E-01 | 5.7E-01 | 3.4E-01 | | | | |
| Furmecyclox | | 1.4E+03 | 9.5E+02 | 5.7E+02 | | | | |
| Glufosinate-ammonium | | | | | | 6.2E+02 | 4.1E+02 | 2.5E+02 |
| Glycidaldehyde | | | | | 1.7E+06 | 6.2E+02 | 4.1E+02 | 2.5E+02 |
| Glyphosate | | | | | | 1.5E+05 | 1.0E+05 | 6.2E+04 |
| Haloxypop-methyl | | | | | | 7.7E+01 | 5.1E+01 | 3.1E+01 |
| Harmony | | | | | | 2.0E+04 | 1.3E+04 | 8.0E+03 |
| Heptachlor | 3.7E+04 | 9.6E+00 | 6.4E+00 | 3.8E+00 | | 7.7E+02 | 5.1E+02 | 3.1E+02 |
| Heptachlor epoxide | 1.9E+04 | 4.8E+00 | 3.1E+00 | 1.9E+00 | | 2.0E+01 | 1.3E+01 | 8.0E+00 |
| Hexabromobenzene | | | | | | 3.1E+03 | 2.0E+03 | 1.2E+03 |

**TABLE B-2
VCP REMEDIATION GOALS FOR SOIL**

| CONTAMINANT | INDUSTRIAL SOIL | | | | | | | |
|---|------------------------|------------------------|------------------------|---------------------|------------------------|------------------------|------------------------|---------------------|
| | Cancer Risk = 1E-05 | | | | Chronic HQ = 1 | | | |
| | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) |
| Hexachlorobenzene | 1.1E+05 | 2.7E+01 | 1.8E+01 | 1.1E+01 | | 1.2E+03 | 8.2E+02 | 4.9E+02 |
| Hexachlorobutadiene | 2.2E+06 | 5.6E+02 | 3.7E+02 | 2.2E+02 | | 3.1E+02 | 2.0E+02 | 1.2E+02 |
| HCH (alpha) | 2.7E+04 | 1.7E+01 | 4.5E+00 | 3.6E+00 | | 1.9E+03 | 5.1E+02 | 4.0E+02 |
| HCH (beta) | 9.1E+04 | 6.0E+01 | 1.6E+01 | 1.3E+01 | | 7.7E+02 | 2.0E+02 | 1.6E+02 |
| HCH (gamma) Lindane | | 8.3E+01 | 2.2E+01 | 1.7E+01 | | 1.2E+03 | 3.1E+02 | 2.4E+02 |
| HCH-technical | 9.5E+04 | 6.0E+01 | 1.6E+01 | 1.3E+01 | | | | |
| Hexachlorocyclopentadiene | | | | | 3.5E+05 | 9.3E+03 | 6.1E+03 | 3.7E+03 |
| Hexachloroethane | 1.2E+07 | 3.1E+03 | 2.0E+03 | 1.2E+03 | | 1.5E+03 | 1.0E+03 | 6.2E+02 |
| Hexachlorophene | | | | | | 4.6E+02 | 3.1E+02 | 1.8E+02 |
| Hexahydro-1,3,5-trinitro-1,3,5-triazine | | 3.9E+02 | 2.6E+02 | 1.6E+02 | | 4.6E+03 | 3.1E+03 | 1.8E+03 |
| 1,6-Hexamethylene diisocyanate | | | | | 1.7E+04 | | | 1.7E+04 |
| n-Hexane | | | | | 4.8E+02 | | 1.1E+07 | 4.8E+02 |
| Hexazinone | | | | | | 5.1E+04 | 3.4E+04 | 2.0E+04 |
| Hydrazine, hydrazine sulfate | 9.9E+03 | 1.4E+01 | 9.5E+00 | 5.7E+00 | | | | |
| Hydrazine, monomethyl | 1.0E+04 | 1.4E+01 | 9.5E+00 | 5.7E+00 | | | | |
| Hydrazine, dimethyl | 1.0E+04 | 1.4E+01 | 9.5E+00 | 5.7E+00 | | | | |
| Hydrogen chloride | | | | | | | | |
| Hydrogen cyanide | | | | | 4.2E+01 | | 2.0E+04 | 4.1E+01 |
| Hydrogen sulfide | | | | | | | 3.1E+03 | 3.1E+03 |
| p-Hydroquinone | | | | | | 6.2E+04 | 4.1E+04 | 2.5E+04 |
| Imazalil | | | | | | 2.0E+04 | 1.3E+04 | 8.0E+03 |
| Imazaquin | | | | | | 3.9E+05 | 2.6E+05 | 1.5E+05 |
| Iprodione | | | | | | 6.2E+04 | 4.1E+04 | 2.5E+04 |
| Iron | | | | | | | 3.1E+05 | 3.1E+05 |
| Isobutanol | | | | | | | 3.1E+05 | 3.1E+05 |
| Isophorone | | 4.6E+04 | 3.0E+04 | 1.8E+04 | | 3.1E+05 | 2.0E+05 | 1.2E+05 |
| Isopropalin | | | | | | 2.3E+04 | 1.5E+04 | 9.2E+03 |
| Isopropyl methyl phosphonic acid | | | | | | 1.5E+05 | 1.0E+05 | 6.2E+04 |
| Isoxaben | | | | | | 7.7E+04 | 5.1E+04 | 3.1E+04 |
| Kepone | | 5.4E+00 | 3.6E+00 | 2.2E+00 | | 3.1E+02 | 2.0E+02 | 1.2E+02 |
| Lactofen | | | | | | 3.1E+03 | 2.0E+03 | 1.2E+03 |
| Lead+++ | | | | | | | | |
| Lead (tetraethyl) | | | | | | 1.5E-01 | 1.0E-01 | 6.2E-02 |
| Linuron | | | | | | 3.1E+03 | 2.0E+03 | 1.2E+03 |
| Lithium | | | | | | | 2.0E+04 | 2.0E+04 |
| Londax | | | | | | 3.1E+05 | 2.0E+05 | 1.2E+05 |
| Malathion | | | | | | 3.1E+04 | 2.0E+04 | 1.2E+04 |
| Maleic anhydride | | | | | | 1.5E+05 | 1.0E+05 | 6.2E+04 |
| Maleic hydrazide | | | | | | | 5.1E+05 | 5.1E+05 |
| Malononitrile | | | | | | 1.5E+02 | 1.0E+02 | 6.2E+01 |
| Mancozeb | | | | | | 4.6E+04 | 3.1E+04 | 1.8E+04 |
| Maneb | | 7.2E+02 | 4.8E+02 | 2.9E+02 | | 7.7E+03 | 5.1E+03 | 3.1E+03 |
| Manganese (non-food)+++ | | | | | 8.6E+04 | | 2.5E+04 | 1.9E+04 |
| Mephosfolan | | | | | | 1.4E+02 | 9.2E+01 | 5.5E+01 |
| Mepiquat | | | | | | 4.6E+04 | 3.1E+04 | 1.8E+04 |
| 2-Mercaptobenzothiazole | | 1.5E+03 | 9.9E+02 | 5.9E+02 | | 1.5E+05 | 1.0E+05 | 6.2E+04 |
| Mercury and compounds | | | | | | | 3.1E+02 | 3.1E+02 |
| Mercury (elemental) | | | | | | | | |
| Mercury (methyl) | | | | | | 1.5E+02 | 1.0E+02 | 6.2E+01 |

**TABLE B-2
VCP REMEDIATION GOALS FOR SOIL**

| CONTAMINANT | INDUSTRIAL SOIL | | | | | | | |
|--|------------------------|------------------------|------------------------|---------------------|------------------------|------------------------|------------------------|---------------------|
| | Cancer Risk = 1E-05 | | | | Chronic HQ = 1 | | | |
| | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) |
| Merphos | | | | | | 4.6E+01 | 3.1E+01 | 1.8E+01 |
| Merphos oxide | | | | | | 4.6E+01 | 3.1E+01 | 1.8E+01 |
| Metalaxyl | | | | | | 9.3E+04 | 6.1E+04 | 3.7E+04 |
| Methacrylonitrile | | | | | 1.1E+01 | | 1.0E+02 | 9.7E+00 |
| Methamidophos | | | | | | 7.7E+01 | 5.1E+01 | 3.1E+01 |
| Methanol | | | | | | 7.7E+05 | 5.1E+05 | 3.1E+05 |
| Methidathion | | | | | | 1.5E+03 | 1.0E+03 | 6.2E+02 |
| Methomyl | | | | | | | 2.6E+04 | 2.6E+04 |
| Methoxychlor | | | | | | 7.7E+03 | 5.1E+03 | 3.1E+03 |
| 2-Methoxyethanol | | | | | 3.5E+07 | 1.5E+03 | 1.0E+03 | 6.2E+02 |
| 2-Methoxyethanol acetate | | | | | | 3.1E+03 | 2.0E+03 | 1.2E+03 |
| 2-Methoxy-5-nitroaniline | | 9.4E+02 | 6.2E+02 | 3.7E+02 | | | | |
| Methyl acetate | | | | | | | 1.0E+06 | 1.0E+06 |
| Methyl acrylate | | | | | | | 3.1E+04 | 3.1E+04 |
| 2-Methylaniline (o-toluidine) | | 1.8E+02 | 1.2E+02 | 7.2E+01 | | | | |
| 2-Methylaniline hydrochloride | | 2.4E+02 | 1.6E+02 | 9.6E+01 | | | | |
| 2-Methyl-4-chlorophenoxyacetic acid (MCPA) | | | | | | 7.7E+02 | 5.1E+02 | 3.1E+02 |
| 4-(2-Methyl-4-chlorophenoxy) butyric acid (MCPB) | | | | | | 1.5E+04 | 1.0E+04 | 6.2E+03 |
| 2-(2-Methyl-4-chlorophenoxy) propionic acid | | | | | | 1.5E+03 | 1.0E+03 | 6.2E+02 |
| 2-(2-Methyl-1,4-chlorophenoxy) propionic acid (MCPB) | | | | | | 1.5E+03 | 1.0E+03 | 6.2E+02 |
| Methylcyclohexane | | | | | 1.0E+04 | | | 1.0E+04 |
| 4,4'-Methylenebisbenzeneamine | | 1.7E+02 | 1.1E+02 | 6.9E+01 | | | | |
| 4,4'-Methylene bis(2-chloroaniline) | 1.3E+06 | 3.3E+02 | 2.2E+02 | 1.3E+02 | | 1.1E+03 | 7.2E+02 | 4.3E+02 |
| 4,4'-Methylene bis(N,N'-dimethyl)aniline | | 9.4E+02 | 6.2E+02 | 3.7E+02 | | | | |
| Methylene bromide | | | | | | | 1.0E+04 | 1.0E+04 |
| Methylene chloride | 2.5E+02 | | 3.8E+03 | 2.4E+02 | 1.3E+04 | | 6.1E+04 | 1.1E+04 |
| 4,4'-Methylenediphenyl isocyanate | | | | | 1.0E+06 | | | 1.0E+06 |
| Methyl ethyl ketone | | | | | 1.7E+05 | | 6.1E+05 | 1.3E+05 |
| Methyl isobutyl ketone | | | | | 1.3E+05 | | 8.2E+04 | 5.0E+04 |
| Methyl mercaptan | | | | | 3.5E+06 | | | 3.5E+06 |
| Methyl methacrylate | | | | | 8.5E+03 | | 1.4E+06 | 8.5E+03 |
| 2-Methyl-5-nitroaniline | | 1.3E+03 | 8.7E+02 | 5.2E+02 | | | | |
| Methyl parathion | | | | | | 3.9E+02 | 2.6E+02 | 1.5E+02 |
| 2-Methylphenol | | | | | | 7.7E+04 | 5.1E+04 | 3.1E+04 |
| 3-Methylphenol | | | | | | 7.7E+04 | 5.1E+04 | 3.1E+04 |
| 4-Methylphenol | | | | | | 7.7E+03 | 5.1E+03 | 3.1E+03 |
| Methyl phosphonic acid | | | | | | 3.1E+04 | 2.0E+04 | 1.2E+04 |
| Methyl styrene (mixture) | | | | | 6.9E+02 | | 6.1E+03 | 6.2E+02 |
| Methyl styrene (alpha) | | | | | | | 7.2E+04 | 7.2E+04 |
| Methyl tertbutyl ether (MTBE) | 2.2E+02 | | 8.7E+03 | 2.2E+02 | 2.4E+04 | | | 2.4E+04 |
| Metolaclor (Dual) | | | | | | 2.3E+05 | 1.5E+05 | 9.2E+04 |
| Metribuzin | | | | | | 3.9E+04 | 2.6E+04 | 1.5E+04 |
| Mirex | | 2.4E+01 | 1.6E+01 | 9.6E+00 | | 3.1E+02 | 2.0E+02 | 1.2E+02 |
| Molinate | | | | | | 3.1E+03 | 2.0E+03 | 1.2E+03 |
| Molybdenum | | | | | | | 5.1E+03 | 5.1E+03 |
| Monochloramine | | | | | | 1.5E+05 | 1.0E+05 | 6.2E+04 |
| Naled | | | | | | 3.1E+03 | 2.0E+03 | 1.2E+03 |
| Napropamide | | | | | | 1.5E+05 | 1.0E+05 | 6.2E+04 |
| Nickel and compounds | | | | | | | 2.0E+04 | 2.0E+04 |

**TABLE B-2
VCP REMEDIATION GOALS FOR SOIL**

| CONTAMINANT | INDUSTRIAL SOIL | | | | | | | |
|---|------------------------|------------------------|------------------------|---------------------|------------------------|------------------------|------------------------|---------------------|
| | Cancer Risk = 1E-05 | | | | Chronic HQ = 1 | | | |
| | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) |
| Nickel refinery dust | 2.0E+05 | | | 2.0E+05 | | | | |
| Nickel subsulfide | 1.0E+05 | | | 1.0E+05 | | | | |
| Nitrate | | | | | | | 1.6E+06 | 1.6E+06 |
| Nitrite | | | | | | | 1.0E+05 | 1.0E+05 |
| 2-Nitroaniline | | | | | 1.7E+05 | 4.6E+03 | 3.1E+03 | 1.8E+03 |
| Nitrobenzene | | | | | 1.5E+02 | | 5.1E+02 | 1.2E+02 |
| Nitrofurantoin | | | | | | 1.1E+05 | 7.2E+04 | 4.3E+04 |
| Nitrofurazone | | 2.9E+01 | 1.9E+01 | 1.1E+01 | | | | |
| Nitroglycerin | | 3.1E+03 | 2.0E+03 | 1.2E+03 | | | | |
| Nitroguanidine | | | | | | 1.5E+05 | 1.0E+05 | 6.2E+04 |
| 2-Nitropropane | 1.8E+04 | | | 1.8E+04 | 3.5E+07 | | | 3.5E+07 |
| N-Nitrosodi-n-butylamine | 7.6E-01 | | 5.3E+00 | 6.7E-01 | | | | |
| N-Nitrosodiethanolamine | | 1.5E+01 | 1.0E+01 | 6.2E+00 | | | | |
| N-Nitrosodiethylamine | 1.1E+03 | 2.9E-01 | 1.9E-01 | 1.1E-01 | | | | |
| N-Nitrosodimethylamine | 3.5E+03 | 8.5E-01 | 5.6E-01 | 3.4E-01 | | 1.2E+01 | 8.2E+00 | 4.9E+00 |
| N-Nitrosodiphenylamine | | 8.8E+03 | 5.8E+03 | 3.5E+03 | | 3.1E+04 | 2.0E+04 | 1.2E+04 |
| N-Nitroso di-n-propylamine | | 6.2E+00 | 4.1E+00 | 2.5E+00 | | | | |
| N-Nitroso-N-methylethylamine | | 2.0E+00 | 1.3E+00 | 7.8E-01 | | | | |
| N-Nitrosopyrrolidine | 7.9E+01 | 2.1E+01 | 1.4E+01 | 7.4E+00 | | | | |
| m-Nitrotoluene | | | | | | | 2.0E+04 | 2.0E+04 |
| o-Nitrotoluene | | | 1.2E+02 | 1.2E+02 | | | 1.0E+04 | 1.0E+04 |
| p-Nitrotoluene | | | 1.7E+03 | 1.7E+03 | | | 1.0E+04 | 1.0E+04 |
| Norflurazon | | | | | | 6.2E+04 | 4.1E+04 | 2.5E+04 |
| NuStar | | | | | | 1.1E+03 | 7.2E+02 | 4.3E+02 |
| Octabromodiphenyl ether | | | | | | 4.6E+03 | 3.1E+03 | 1.8E+03 |
| Octahydro-1357-tetranitro-1357- tetrazocine (HMX) | | | | | | 7.7E+04 | 5.1E+04 | 3.1E+04 |
| Octamethylpyrophosphoramide | | | | | | 3.1E+03 | 2.0E+03 | 1.2E+03 |
| Oryzalin | | | | | | 7.7E+04 | 5.1E+04 | 3.1E+04 |
| Oxadiazon | | | | | | 7.7E+03 | 5.1E+03 | 3.1E+03 |
| Oxamyl | | | | | | 3.9E+04 | 2.6E+04 | 1.5E+04 |
| Oxyfluorfen | | | | | | 4.6E+03 | 3.1E+03 | 1.8E+03 |
| Paclobutrazol | | | | | | 2.0E+04 | 1.3E+04 | 8.0E+03 |
| Paraquat | | | | | | 7.0E+03 | 4.6E+03 | 2.8E+03 |
| Parathion | | | | | | 9.3E+03 | 6.1E+03 | 3.7E+03 |
| Pebulate | | | | | | 7.7E+04 | 5.1E+04 | 3.1E+04 |
| Pendimethalin | | | | | | 6.2E+04 | 4.1E+04 | 2.5E+04 |
| Pentabromo-6-chloro cyclohexane | | 1.9E+03 | 1.2E+03 | 7.5E+02 | | | | |
| Pentabromodiphenyl ether | | | | | | 3.1E+03 | 2.0E+03 | 1.2E+03 |
| Pentachlorobenzene | | | | | | 1.2E+03 | 8.2E+02 | 4.9E+02 |
| Pentachloronitrobenzene | | 1.7E+02 | 1.1E+02 | 6.6E+01 | | 4.6E+03 | 3.1E+03 | 1.8E+03 |
| Pentachlorophenol | | 1.4E+02 | 2.4E+02 | 9.0E+01 | | 1.9E+04 | 3.1E+04 | 1.2E+04 |
| Perchlorate | | | | | | | 1.0E+02 | 1.0E+02 |
| Permethrin | | | | | | 7.7E+04 | 5.1E+04 | 3.1E+04 |
| Phenmedipham | | | | | | 3.9E+05 | 2.6E+05 | 1.5E+05 |
| Phenol | | | | | | 4.6E+05 | 3.1E+05 | 1.8E+05 |
| Phenothiazine | | | | | | 3.1E+03 | 2.0E+03 | 1.2E+03 |
| m-Phenylenediamine | | | | | | 9.3E+03 | 6.1E+03 | 3.7E+03 |
| p-Phenylenediamine | | | | | | 2.9E+05 | 1.9E+05 | 1.2E+05 |
| Phenylmercuric acetate | | | | | | 1.2E+02 | 8.2E+01 | 4.9E+01 |

**TABLE B-2
VCP REMEDIATION GOALS FOR SOIL**

| CONTAMINANT | INDUSTRIAL SOIL | | | | | | | |
|-----------------------------------|------------------------|------------------------|------------------------|---------------------|------------------------|------------------------|------------------------|---------------------|
| | Cancer Risk = 1E-05 | | | | Chronic HQ = 1 | | | |
| | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) |
| 2-Phenylphenol | | 2.2E+04 | 1.5E+04 | 8.9E+03 | | | | |
| Phorate | | | | | | 3.1E+02 | 2.0E+02 | 1.2E+02 |
| Phosmet | | | | | | 3.1E+04 | 2.0E+04 | 1.2E+04 |
| Phosphine | | | | | 5.2E+05 | 4.6E+02 | 3.1E+02 | 1.8E+02 |
| Phosphoric acid | | | | | | | | |
| Phosphorus (white) | | | | | | | 2.0E+01 | 2.0E+01 |
| p-Phthalic acid | | | | | | 1.5E+06 | 1.0E+06 | 6.2E+05 |
| Phthalic anhydride | | | | | 2.1E+08 | 3.1E+06 | 2.0E+06 | 1.2E+06 |
| Picloram | | | | | | 1.1E+05 | 7.2E+04 | 4.3E+04 |
| Pirimiphos-methyl | | | | | | 1.5E+04 | 1.0E+04 | 6.2E+03 |
| Polybrominated biphenyls | | 4.9E+00 | 3.2E+00 | 1.9E+00 | | 1.1E+01 | 7.2E+00 | 4.3E+00 |
| Polychlorinated biphenyls (PCBs) | 4.8E+05 | 1.5E+01 | 1.4E+01 | 7.4E+00 | | | | |
| Aroclor 1016 | 2.4E+06 | 4.4E+02 | 4.1E+02 | 2.1E+02 | | 7.7E+01 | 7.2E+01 | 3.7E+01 |
| Aroclor 1221 | 8.5E+04 | 1.5E+01 | 1.4E+01 | 7.4E+00 | | | | |
| Aroclor 1232 | 8.5E+04 | 1.5E+01 | 1.4E+01 | 7.4E+00 | | | | |
| Aroclor 1242 | 8.5E+04 | 1.5E+01 | 1.4E+01 | 7.4E+00 | | | | |
| Aroclor 1248 | 8.5E+04 | 1.5E+01 | 1.4E+01 | 7.4E+00 | | | | |
| Aroclor 1254 | 8.5E+04 | 1.5E+01 | 1.4E+01 | 7.4E+00 | | 2.2E+01 | 2.0E+01 | 1.1E+01 |
| Aroclor 1260 | 8.5E+04 | 1.5E+01 | 1.4E+01 | 7.4E+00 | | | | |
| Polychlorinated terphenyls | | 9.6E+00 | 6.4E+00 | 3.8E+00 | | | | |
| Polynuclear aromatic hydrocarbons | | | | | | | | |
| Acenaphthene | | | | | | | 6.1E+04 | 6.1E+04 |
| Anthracene | | | | | | | 3.1E+05 | 3.1E+05 |
| Benz[a]anthracene | | 4.6E+01 | 3.9E+01 | 2.1E+01 | | | | |
| Benzo[b]fluoranthene | | 4.6E+01 | 3.9E+01 | 2.1E+01 | | | | |
| Benzo[k]fluoranthene | | 4.6E+02 | 3.9E+02 | 2.1E+02 | | | | |
| Benzo[a]pyrene | | 4.6E+00 | 3.9E+00 | 2.1E+00 | | | | |
| Chrysene | | 4.6E+03 | 3.9E+03 | 2.1E+03 | | | | |
| Dibenz[ah]anthracene | | 4.6E+00 | 3.9E+00 | 2.1E+00 | | | | |
| Fluoranthene | | | | | | 4.8E+04 | 4.1E+04 | 2.2E+04 |
| Fluorene | | | | | | | 4.1E+04 | 4.1E+04 |
| Indeno[1,2,3-cd]pyrene | | 4.6E+01 | 3.9E+01 | 2.1E+01 | | | | |
| Naphthalene | | | | | 2.2E+02 | | 2.0E+04 | 2.2E+02 |
| Pyrene | | | | | | | 3.1E+04 | 3.1E+04 |
| Prochloraz | | 2.9E+02 | 1.9E+02 | 1.1E+02 | | 1.4E+04 | 9.2E+03 | 5.5E+03 |
| Profluralin | | | | | | 9.3E+03 | 6.1E+03 | 3.7E+03 |
| Prometon | | | | | | 2.3E+04 | 1.5E+04 | 9.2E+03 |
| Prometryn | | | | | | 6.2E+03 | 4.1E+03 | 2.5E+03 |
| Pronamide | | | | | | 1.2E+05 | 7.7E+04 | 4.6E+04 |
| Propachlor | | | | | | 2.0E+04 | 1.3E+04 | 8.0E+03 |
| Propanil | | | | | | 7.7E+03 | 5.1E+03 | 3.1E+03 |
| Propargite | | | | | | 3.1E+04 | 2.0E+04 | 1.2E+04 |
| Propargyl alcohol | | | | | | 3.1E+03 | 2.0E+03 | 1.2E+03 |
| Propazine | | | | | | 3.1E+04 | 2.0E+04 | 1.2E+04 |
| Propham | | | | | | 3.1E+04 | 2.0E+04 | 1.2E+04 |
| Propiconazole | | | | | | 2.0E+04 | 1.3E+04 | 8.0E+03 |
| n-Propylbenzene | | | | | | | 4.1E+04 | 4.1E+04 |
| Propylene glycol | | | | | 5.2E+06 | 7.7E+05 | 5.1E+05 | 2.9E+05 |
| Propylene glycol, monoethyl ether | | | | | | 1.1E+06 | 7.2E+05 | 4.3E+05 |

**TABLE B-2
VCP REMEDIATION GOALS FOR SOIL**

| CONTAMINANT | INDUSTRIAL SOIL | | | | | | | |
|------------------------------------|------------------------|------------------------|------------------------|---------------------|------------------------|------------------------|------------------------|---------------------|
| | Cancer Risk = 1E-05 | | | | Chronic HQ = 1 | | | |
| | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) |
| Propylene glycol, monomethyl ether | | | | | 3.5E+09 | 1.1E+06 | 7.2E+05 | 4.3E+05 |
| Propylene oxide | 1.7E+02 | | 1.2E+02 | 7.1E+01 | 6.9E+02 | | | 6.9E+02 |
| Pursuit | | | | | | 3.9E+05 | 2.6E+05 | 1.5E+05 |
| Pydrin | | | | | | 3.9E+04 | 2.6E+04 | 1.5E+04 |
| Pyridine | | | | | | 1.5E+03 | 1.0E+03 | 6.2E+02 |
| Quinalphos | | | | | | 7.7E+02 | 5.1E+02 | 3.1E+02 |
| Quinoline | | 1.4E+01 | 9.5E+00 | 5.7E+00 | | | | |
| RDX (Cyclonite) | | 3.9E+02 | 2.6E+02 | 1.6E+02 | | 4.6E+03 | 3.1E+03 | 1.8E+03 |
| Resmethrin | | | | | | 4.6E+04 | 3.1E+04 | 1.8E+04 |
| Ronnel | | | | | | 7.7E+04 | 5.1E+04 | 3.1E+04 |
| Rotenone | | | | | | 6.2E+03 | 4.1E+03 | 2.5E+03 |
| Savey | | | | | | 3.9E+04 | 2.6E+04 | 1.5E+04 |
| Selenious Acid | | | | | | 7.7E+03 | 5.1E+03 | 3.1E+03 |
| Selenium | | | | | | | 5.1E+03 | 5.1E+03 |
| Selenourea | | | | | | 7.7E+03 | 5.1E+03 | 3.1E+03 |
| Sethoxydim | | | | | | 1.4E+05 | 9.2E+04 | 5.5E+04 |
| Silver and compounds | | | | | | | 5.1E+03 | 5.1E+03 |
| Simazine | | 3.6E+02 | 2.4E+02 | 1.4E+02 | | 7.7E+03 | 5.1E+03 | 3.1E+03 |
| Sodium azide | | | | | | | 4.1E+03 | 4.1E+03 |
| Sodium diethyldithiocarbamate | | 1.6E+02 | 1.1E+02 | 6.4E+01 | | 4.6E+04 | 3.1E+04 | 1.8E+04 |
| Sodium fluoroacetate | | | | | | 3.1E+01 | 2.0E+01 | 1.2E+01 |
| Sodium metavanadate | | | | | | 1.5E+03 | 1.0E+03 | 6.2E+02 |
| Strontium, stable | | | | | | | 6.1E+05 | 6.1E+05 |
| Strychnine | | | | | | 4.6E+02 | 3.1E+02 | 1.8E+02 |
| Styrene | | | | | 2.3E+04 | | 2.0E+05 | 2.1E+04 |
| 1,1'-Sulfonylbis (4-chlorobenzene) | | | | | | 7.7E+03 | 5.1E+03 | 3.1E+03 |
| Systhane | | | | | | 3.9E+04 | 2.6E+04 | 1.5E+04 |
| 2,3,7,8-TCDD (dioxin) | 1.5E+04 | 9.6E-04 | 1.9E-04 | 1.6E-04 | | | | |
| Tebuthiuron | | | | | | 1.1E+05 | 7.2E+04 | 4.3E+04 |
| Temephos | | | | | | 3.1E+04 | 2.0E+04 | 1.2E+04 |
| Terbacil | | | | | | 2.0E+04 | 1.3E+04 | 8.0E+03 |
| Terbufos | | | | | | 3.9E+01 | 2.6E+01 | 1.5E+01 |
| Terbutryn | | | | | | 1.5E+03 | 1.0E+03 | 6.2E+02 |
| 1,2,4,5-Tetrachlorobenzene | | | | | | 4.6E+02 | 3.1E+02 | 1.8E+02 |
| 1,1,1,2-Tetrachloroethane | 9.1E+01 | | 1.1E+03 | 8.4E+01 | | | 3.1E+04 | 3.1E+04 |
| 1,1,2,2-Tetrachloroethane | 1.2E+01 | | 1.4E+02 | 1.1E+01 | | | 6.1E+04 | 6.1E+04 |
| Tetrachloroethylene (PCE) | 2.0E+01 | | 5.3E+01 | 1.5E+01 | 1.7E+03 | | 1.0E+04 | 1.5E+03 |
| 2,3,4,6-Tetrachlorophenol | | | | | | 4.6E+04 | 3.1E+04 | 1.8E+04 |
| p,a,a,a-Tetrachlorotoluene | | 2.2E+00 | 1.4E+00 | 8.6E-01 | | | | |
| Tetrachlorovinphos | | 1.8E+03 | 1.2E+03 | 7.2E+02 | | 4.6E+04 | 3.1E+04 | 1.8E+04 |
| Tetraethyldithiopyrophosphate | | | | | | 7.7E+02 | 5.1E+02 | 3.1E+02 |
| Tetrahydrofuran | 2.6E+02 | | 3.8E+03 | 2.4E+02 | 5.5E+03 | | 2.1E+05 | 5.3E+03 |
| Thallium and compounds+++ | | | | | | | 6.7E+01 | 6.7E+01 |
| Thiobencarb | | | | | | 1.5E+04 | 1.0E+04 | 6.2E+03 |
| Thiocyanate | | | | | | 1.5E+02 | 1.0E+02 | 6.2E+01 |
| Thiofanox | | | | | | 4.6E+02 | 3.1E+02 | 1.8E+02 |
| Thiophanate-methyl | | | | | | 1.2E+05 | 8.2E+04 | 4.9E+04 |
| Thiram | | | | | | 7.7E+03 | 5.1E+03 | 3.1E+03 |
| Tin and compounds | | | | | | | 6.1E+05 | 6.1E+05 |

**TABLE B-2
VCP REMEDIATION GOALS FOR SOIL**

| CONTAMINANT | INDUSTRIAL SOIL | | | | | | | |
|---|------------------------|------------------------|------------------------|---------------------|------------------------|------------------------|------------------------|---------------------|
| | Cancer Risk = 1E-05 | | | | Chronic HQ = 1 | | | |
| | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) |
| Toluene | | | | | 2.7E+03 | | 2.0E+05 | 2.7E+03 |
| Toluene-2,4-diamine | | 1.4E+01 | 8.9E+00 | 5.4E+00 | | | | |
| Toluene-2,5-diamine | | | | | | 9.3E+05 | 6.1E+05 | 3.7E+05 |
| Toluene-2,6-diamine | | | | | | 3.1E+05 | 2.0E+05 | 1.2E+05 |
| p-Toluidine | | 2.3E+02 | 1.5E+02 | 9.1E+01 | | | | |
| Toxaphene | 1.5E+05 | 3.9E+01 | 2.6E+01 | 1.6E+01 | | | | |
| Tralomethrin | | | | | | 1.2E+04 | 7.7E+03 | 4.6E+03 |
| Triallate | | | | | | 2.0E+04 | 1.3E+04 | 8.0E+03 |
| Triasulfuron | | | | | | 1.5E+04 | 1.0E+04 | 6.2E+03 |
| 1,2,4-Tribromobenzene | | | | | | 7.7E+03 | 5.1E+03 | 3.1E+03 |
| Tributyltin oxide (TBTO) | | | | | | 4.6E+02 | 3.1E+02 | 1.8E+02 |
| 2,4,6-Trichloroaniline | | 1.3E+03 | 8.4E+02 | 5.1E+02 | | | | |
| 2,4,6-Trichloroaniline hydrochloride | | 1.5E+03 | 9.9E+02 | 5.9E+02 | | | | |
| 1,2,4-Trichlorobenzene | | | | | 3.0E+02 | | 1.0E+04 | 2.9E+02 |
| 1,1,1-Trichloroethane | | | | | 8.3E+03 | | 2.9E+05 | 8.1E+03 |
| 1,1,2-Trichloroethane | 1.9E+01 | | 5.0E+02 | 1.9E+01 | | | 4.1E+03 | 4.1E+03 |
| Trichloroethylene (TCE) | 1.4E+00 | | 7.2E+01 | 1.4E+00 | 2.2E+02 | | 3.1E+02 | 1.3E+02 |
| Trichlorofluoromethane | | | | | 1.5E+03 | | 3.1E+05 | 1.5E+03 |
| 2,4,5-Trichlorophenol | | | | | | 1.5E+05 | 1.0E+05 | 6.2E+04 |
| 2,4,6-Trichlorophenol | 1.6E+07 | 3.9E+03 | 2.6E+03 | 1.6E+03 | | 1.5E+02 | 1.0E+02 | 6.2E+01 |
| 2,4,5-Trichlorophenoxyacetic acid | | | | | | 1.5E+04 | 1.0E+04 | 6.2E+03 |
| 2-(2,4,5-Trichlorophenoxy) propionic acid | | | | | | 1.2E+04 | 8.2E+03 | 4.9E+03 |
| 1,1,2-Trichloropropane | | | | | | | 5.1E+03 | 5.1E+03 |
| 1,2,3-Trichloropropane | | | 4.1E+00 | 4.1E+00 | 1.0E+00 | | 6.1E+03 | 1.0E+00 |
| 1,2,3-Trichloropropene | | | | | 2.6E+00 | | 1.0E+04 | 2.6E+00 |
| Tridiphane | | | | | | 4.6E+03 | 3.1E+03 | 1.8E+03 |
| Triethylamine | | | | | 1.1E+02 | | | 1.1E+02 |
| Trifluralin | | 5.6E+03 | 3.7E+03 | 2.2E+03 | | 1.2E+04 | 7.7E+03 | 4.6E+03 |
| Trimellitic Anhydride (TMAN) | | | | | 6.9E+04 | | | 6.9E+04 |
| 1,2,4-Trimethylbenzene | | | | | 2.0E+02 | | 5.1E+04 | 2.0E+02 |
| 1,3,5-Trimethylbenzene | | | | | 8.3E+01 | | 5.1E+04 | 8.2E+01 |
| Trimethyl phosphate | | 1.2E+03 | 7.7E+02 | 4.7E+02 | | | | |
| 1,3,5-Trinitrobenzene | | | | | | 4.6E+04 | 3.1E+04 | 1.8E+04 |
| Trinitrophenylmethylnitramine | | | | | | 1.5E+04 | 1.0E+04 | 6.2E+03 |
| 2,4,6-Trinitrotoluene | | 1.4E+03 | 9.5E+02 | 5.7E+02 | | 7.7E+02 | 5.1E+02 | 3.1E+02 |
| Triphenylphosphine oxide | | | | | | 3.1E+04 | 2.0E+04 | 1.2E+04 |
| Tris(2-chloroethyl) phosphate | | 3.1E+03 | 2.0E+03 | 1.2E+03 | | 4.6E+05 | 3.1E+05 | 1.8E+05 |
| Uranium (chemical toxicity only) | | | | | | | 3.1E+03 | 3.1E+03 |
| Vanadium and compounds | | | | | | | 9.2E+03 | 9.2E+03 |
| Vernam | | | | | | 1.5E+03 | 1.0E+03 | 6.2E+02 |
| Vinclozolin | | | | | | 3.9E+04 | 2.6E+04 | 1.5E+04 |
| Vinyl acetate | | | | | 1.6E+03 | | 1.0E+06 | 1.6E+03 |
| Vinyl bromide | 4.9E+00 | | | 4.9E+00 | 1.7E+01 | | | 1.7E+01 |
| Vinyl chloride (residential)+++ | | | | | | | | |
| Vinyl chloride (industrial)+++ | 1.1E+01 | | 4.0E+01 | 8.8E+00 | 1.8E+02 | | 3.1E+03 | 1.7E+02 |
| Warfarin | | | | | | 4.6E+02 | 3.1E+02 | 1.8E+02 |
| Xylenes | | | | | 1.0E+03 | | 2.0E+05 | 1.0E+03 |
| Zinc | | | | | | | 3.1E+05 | 3.1E+05 |
| Zinc phosphide | | | | | | | 3.1E+02 | 3.1E+02 |

**TABLE B-2
VCP REMEDIATION GOALS FOR SOIL**

| CONTAMINANT | INDUSTRIAL SOIL | | | | | | | |
|---------------|-------------------------|------------------------|------------------------|---------------------|------------------------|------------------------|------------------------|---------------------|
| | Cancer Risk = 1E-05 | | | | Chronic HQ = 1 | | | |
| | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) | soil-inhale (mg/kg) | soil-dermal (mg/kg) | soil-ingest (mg/kg) | combined (mg/kg) |
| Zineb | | | | | | 7.7E+04 | 5.1E+04 | 3.1E+04 |
| Notes: | | | | | | | | |
| mg/kg | milligram per kilogram | | | | | | | |
| HQ | hazard quotient | | | | | | | |
| soil-inhale | soil inhalation pathway | | | | | | | |
| soil-dermal | soil dermal pathway | | | | | | | |
| soil-ingest | soil ingestion pathway | | | | | | | |

**TABLE B-3
VCP REMEDIATION GOALS FOR GROUND WATER**

| CONTAMINANT | RESIDENTIAL GROUND WATER | | | | | | | |
|------------------------------|--------------------------|----------------------|------------------------|--------------------|------------------------|----------------------|------------------------|--------------------|
| | Cancer Risk = 1E-06 | | | | Chronic HQ = 0.25 | | | |
| | water-inhale (ug/l) | water-derm (ug/l) | water-ingest (ug/l) | combined (ug/l) | water-inhale (ug/l) | water-derm (ug/l) | water-ingest (ug/l) | combined (ug/l) |
| Acephate | | | 7.7E+00 | 7.7E+00 | | | 3.7E+01 | 3.7E+01 |
| Acetaldehyde | 2.2E+00 | | | 2.2E+00 | 4.7E+00 | | | 4.7E+00 |
| Acetochlor | | | | | | | 1.8E+02 | 1.8E+02 |
| Acetone | | | | | | | 8.2E+03 | 8.2E+03 |
| Acetone cyanohydrin | | | | | | | 7.3E+00 | 7.3E+00 |
| Acetonitrile | | | | | 3.1E+01 | | | 3.1E+01 |
| Acrolein | | | | | 1.0E-02 | | 4.6E+00 | 1.0E-02 |
| Acrylamide | | | 1.5E-02 | 1.5E-02 | | | 1.8E+00 | 1.8E+00 |
| Acrylic acid | | | | | | | 4.6E+03 | 4.6E+03 |
| Acrylonitrile | 7.2E-02 | | 1.2E-01 | 4.5E-02 | 1.0E+00 | | 9.1E+00 | 9.4E-01 |
| Alachlor | | | 8.4E-01 | 8.4E-01 | | | 9.1E+01 | 9.1E+01 |
| Alar | | | | | | | 1.4E+03 | 1.4E+03 |
| Aldicarb | | | | | | | 9.1E+00 | 9.1E+00 |
| Aldicarb sulfone | | | | | | | 9.1E+00 | 9.1E+00 |
| Aldrin | 9.9E-04 | | 4.0E-03 | 7.9E-04 | | | 2.7E-01 | 2.7E-01 |
| Allyl | | | | | | | 2.3E+03 | 2.3E+03 |
| Allyl alcohol | | | | | | | 4.6E+01 | 4.6E+01 |
| Allyl chloride | | | | | | | 4.6E+02 | 4.6E+02 |
| Aluminum | | | | | | | 9.1E+03 | 9.1E+03 |
| Aluminum phosphide | | | | | | | 3.7E+00 | 3.7E+00 |
| Amdro | | | | | | | 2.7E+00 | 2.7E+00 |
| Ametryn | | | | | | | 8.2E+01 | 8.2E+01 |
| m-Aminophenol | | | | | | | 6.4E+02 | 6.4E+02 |
| 4-Aminopyridine | | | | | | | 1.8E-01 | 1.8E-01 |
| Amitraz | | | | | | | 2.3E+01 | 2.3E+01 |
| Ammonia | | | | | | | | |
| Ammonium sulfamate | | | | | | | 1.8E+03 | 1.8E+03 |
| Aniline | | | 1.2E+01 | 1.2E+01 | | | 6.4E+01 | 6.4E+01 |
| Antimony and compounds | | | | | | | 3.7E+00 | 3.7E+00 |
| Antimony pentoxide | | | | | | | 4.6E+00 | 4.6E+00 |
| Antimony potassium tartrate | | | | | | | 8.2E+00 | 8.2E+00 |
| Antimony tetroxide | | | | | | | 3.7E+00 | 3.7E+00 |
| Antimony trioxide | | | | | | | 3.7E+00 | 3.7E+00 |
| Apollo | | | | | | | 1.2E+02 | 1.2E+02 |
| Aramite | | | 2.7E+00 | 2.7E+00 | | | 4.6E+02 | 4.6E+02 |
| Arsenic (noncancer endpoint) | | | | | | | 2.7E+00 | 2.7E+00 |
| Arsenic (cancer endpoint) | | | 4.5E-02 | 4.5E-02 | | | 2.7E+00 | 2.7E+00 |
| Arsine | | | | | | | | |
| Assure | | | | | | | 8.2E+01 | 8.2E+01 |
| Asulam | | | | | | | 4.6E+02 | 4.6E+02 |
| Atrazine | | | 3.0E-01 | 3.0E-01 | | | 3.2E+02 | 3.2E+02 |
| Avermectin B1 | | | | | | | 3.7E+00 | 3.7E+00 |
| Azobenzene | | | 6.1E-01 | 6.1E-01 | | | | |
| Barium and compounds | | | | | | | 6.4E+02 | 6.4E+02 |
| Baygon | | | | | | | 3.7E+01 | 3.7E+01 |
| Bayleton | | | | | | | 2.7E+02 | 2.7E+02 |
| Baythroid | | | | | | | 2.3E+02 | 2.3E+02 |
| Benefin | | | | | | | 2.7E+03 | 2.7E+03 |
| Benomyl | | | | | | | 4.6E+02 | 4.6E+02 |

**TABLE B-3
VCP REMEDIATION GOALS FOR GROUND WATER**

| CONTAMINANT | RESIDENTIAL GROUND WATER | | | | | | | |
|-----------------------------------|--------------------------|----------------------|------------------------|--------------------|------------------------|----------------------|------------------------|--------------------|
| | Cancer Risk = 1E-06 | | | | Chronic HQ = 0.25 | | | |
| | water-inhale (ug/l) | water-derm (ug/l) | water-ingest (ug/l) | combined (ug/l) | water-inhale (ug/l) | water-derm (ug/l) | water-ingest (ug/l) | combined (ug/l) |
| Bentazon | | | | | | | 2.7E+02 | 2.7E+02 |
| Benzaldehyde | | | | | | | 9.1E+02 | 9.1E+02 |
| Benzene | 6.2E-01 | 3.7E+01 | 1.2E+00 | 4.1E-01 | 1.6E+01 | 2.4E+02 | 3.7E+01 | 1.0E+01 |
| Benzidine | | | 2.9E-04 | 2.9E-04 | | | 2.7E+01 | 2.7E+01 |
| Benzoic acid | | | | | | | 3.7E+04 | 3.7E+04 |
| Benzotrithloride | | 1.0E-01 | 5.2E-03 | 4.9E-03 | | | | |
| Benzyl alcohol | | | | | | | 2.7E+03 | 2.7E+03 |
| Benzyl chloride | | 1.3E+01 | 4.0E-01 | 3.8E-01 | 5.2E+00 | | | 5.2E+00 |
| Beryllium and compounds | | | | | | 2.4E+01 | 1.8E+01 | 1.0E+01 |
| Bidrin | | | | | | | 9.1E-01 | 9.1E-01 |
| Biphenthrin (Talstar) | | | | | | | 1.4E+02 | 1.4E+02 |
| 1,1-Biphenyl | | | | | | | 4.6E+02 | 4.6E+02 |
| Bis(2-chloroethyl)ether | 1.5E-02 | | 6.1E-02 | 1.2E-02 | | | | |
| Bis(2-chloroisopropyl)ether | 4.9E-01 | | 9.6E-01 | 3.2E-01 | | | 3.7E+02 | 3.7E+02 |
| Bis(chloromethyl)ether | 7.8E-05 | | 3.1E-04 | 6.2E-05 | | | | |
| Bis(2-chloro-1-methylethyl)ether | 4.9E-01 | | 9.6E-01 | 3.2E-01 | | | 3.7E+02 | 3.7E+02 |
| Bis(2-ethylhexyl)phthalate (DEHP) | | 1.4E+01 | 4.8E+00 | 3.6E+00 | | 1.2E+02 | 1.8E+02 | 7.2E+01 |
| Bisphenol A | | | | | | | 4.6E+02 | 4.6E+02 |
| Boron | | | | | | | 8.2E+02 | 8.2E+02 |
| Boron trifluoride | | | | | | | | |
| Bromate | | | 9.6E-02 | 9.6E-02 | | | 3.7E+01 | 3.7E+01 |
| Bromobenzene | | | | | 5.2E+00 | | 1.8E+02 | 5.1E+00 |
| Bromodichloromethane | | | 1.1E+00 | 1.1E+00 | | | 1.8E+02 | 1.8E+02 |
| Bromoform (tribromomethane) | 4.4E+00 | | 8.5E+00 | 2.9E+00 | | | 1.8E+02 | 1.8E+02 |
| Bromomethane | | | | | 2.6E+00 | | 1.3E+01 | 2.2E+00 |
| Bromophos | | | | | | | 4.6E+01 | 4.6E+01 |
| Bromoxynil | | | | | | | 1.8E+02 | 1.8E+02 |
| Bromoxynil octanoate | | | | | | | 1.8E+02 | 1.8E+02 |
| 1,3-Butadiene | 1.6E-01 | | | 1.6E-01 | 1.0E+00 | | | 1.0E+00 |
| 1-Butanol | | | | | | | 9.1E+02 | 9.1E+02 |
| Butylate | | | | | | | 4.6E+02 | 4.6E+02 |
| n-Butylbenzene | | | | | | | 3.7E+02 | 3.7E+02 |
| sec-Butylbenzene | | | | | | | 3.7E+02 | 3.7E+02 |
| tert-Butylbenzene | | | | | | | 3.7E+02 | 3.7E+02 |
| Butyl benzyl phthalate | | | | | | | 1.8E+03 | 1.8E+03 |
| Butylphthalyl butylglycolate | | | | | | | 9.1E+03 | 9.1E+03 |
| Cacodylic acid | | | 2.7E-01 | 2.7E-01 | | | 2.7E+00 | 2.7E+00 |
| Cadmium and compounds+++ | | | | | | 4.4E+01 | 4.6E+00 | 4.1E+00 |
| Caprolactam | | | | | | | 4.6E+03 | 4.6E+03 |
| Captafol | | | 7.8E+00 | 7.8E+00 | | | 1.8E+01 | 1.8E+01 |
| Captan | | | 1.9E+01 | 1.9E+01 | | | 1.2E+03 | 1.2E+03 |
| Carbaryl | | | | | | | 9.1E+02 | 9.1E+02 |
| Carbazole | | | 3.4E+00 | 3.4E+00 | | | | |
| Carbofuran | | | | | | | 4.6E+01 | 4.6E+01 |
| Carbon disulfide | | | | | 3.7E+02 | 5.1E+03 | 9.1E+02 | 2.5E+02 |
| Carbon tetrachloride | 3.2E-01 | 8.8E+00 | 5.2E-01 | 1.9E-01 | 1.0E+00 | 2.3E+01 | 6.4E+00 | 8.6E-01 |
| Carbosulfan | | | | | | | 9.1E+01 | 9.1E+01 |
| Carboxin | | | | | | | 9.1E+02 | 9.1E+02 |
| Chloramben | | | | | | | 1.4E+02 | 1.4E+02 |

**TABLE B-3
VCP REMEDIATION GOALS FOR GROUND WATER**

| CONTAMINANT | RESIDENTIAL GROUND WATER | | | | | | | |
|--|--------------------------|----------------------|------------------------|--------------------|------------------------|----------------------|------------------------|--------------------|
| | Cancer Risk = 1E-06 | | | | Chronic HQ = 0.25 | | | |
| | water-inhale (ug/l) | water-derm (ug/l) | water-ingest (ug/l) | combined (ug/l) | water-inhale (ug/l) | water-derm (ug/l) | water-ingest (ug/l) | combined (ug/l) |
| Chloranil | | | 1.7E-01 | 1.7E-01 | | | | |
| Chlordane | 4.9E-02 | 3.9E-01 | 1.9E-01 | 3.5E-02 | 3.7E-01 | 2.0E+00 | 4.6E+00 | 2.9E-01 |
| Chlorimuron-ethyl | | | | | | | 1.8E+02 | 1.8E+02 |
| Chlorine | | | | | | | 9.1E+02 | 9.1E+02 |
| Chlorine dioxide | | | | | | | 2.7E+02 | 2.7E+02 |
| Chloroacetic acid | | | | | | | 1.8E+01 | 1.8E+01 |
| 2-Chloroacetophenone | | | | | 1.6E-02 | | | 1.6E-02 |
| 4-Chloroaniline | | | | | | | 3.7E+01 | 3.7E+01 |
| Chlorobenzene | | | | | 3.1E+01 | 5.1E+02 | 1.8E+02 | 2.5E+01 |
| Chlorobenzilate | | | 2.5E-01 | 2.5E-01 | | | 1.8E+02 | 1.8E+02 |
| p-Chlorobenzoic acid | | | | | | | 1.8E+03 | 1.8E+03 |
| 4-Chlorobenzotrifluoride | | | | | | | 1.8E+02 | 1.8E+02 |
| 2-Chloro-1,3-butadiene | | | | | 3.7E+00 | | 1.8E+02 | 3.6E+00 |
| 1-Chlorobutane | | | | | | | 3.7E+03 | 3.7E+03 |
| 1-Chloro-1,1-difluoroethane | | | | | 2.6E+03 | | | 2.6E+03 |
| Chlorodifluoromethane | | | | | 2.6E+03 | | | 2.6E+03 |
| Chloroethane | | | 2.3E+01 | 2.3E+01 | 5.2E+03 | | 3.7E+03 | 2.1E+03 |
| Chloroform | 2.1E-01 | | | 2.1E-01 | 2.3E+01 | | 9.1E+01 | 1.9E+01 |
| Chloromethane | 2.7E+00 | | 5.2E+00 | 1.8E+00 | 4.7E+01 | | | 4.7E+01 |
| 4-Chloro-2-methylaniline | | | 1.2E-01 | 1.2E-01 | | | | |
| 4-Chloro-2-methylaniline hydrochloride | | | 1.5E-01 | 1.5E-01 | | | | |
| beta-Chloronaphthalene | | | | | | | 7.3E+02 | 7.3E+02 |
| o-Chloronitrobenzene | | | 6.9E+00 | 6.9E+00 | 3.7E-02 | | 9.1E+00 | 3.6E-02 |
| p-Chloronitrobenzene | | | 1.0E+01 | 1.0E+01 | 3.1E-01 | | 9.1E+00 | 3.0E-01 |
| 2-Chlorophenol | | | | | | 4.0E+02 | 4.6E+01 | 4.1E+01 |
| 2-Chloropropane | | | | | 5.2E+01 | | | 5.2E+01 |
| Chloroethalonil | | 4.9E+01 | 6.1E+00 | 5.4E+00 | | 2.4E+02 | 1.4E+02 | 8.7E+01 |
| o-Chlorotoluene | | | | | | | 1.8E+02 | 1.8E+02 |
| Chlorpropham | | | | | | | 1.8E+03 | 1.8E+03 |
| Chlorpyrifos | | | | | | | 2.7E+01 | 2.7E+01 |
| Chlorpyrifos-methyl | | | | | | | 9.1E+01 | 9.1E+01 |
| Chlorsulfuron | | | | | | | 4.6E+02 | 4.6E+02 |
| Chlorthiophos | | | | | | | 7.3E+00 | 7.3E+00 |
| Total Chromium (1:6 ratio Cr VI:Cr III)+++ | | | | | | | | |
| Chromium III | | | | | | 3.4E+04 | 1.4E+04 | 9.8E+03 |
| Chromium VI+++ | | | | | | 6.6E+01 | 2.7E+01 | 1.9E+01 |
| Cobalt | | | | | | | 1.8E+02 | 1.8E+02 |
| Coke Oven Emissions | | | | | | | | |
| Copper and compounds | | | | | | | 3.7E+02 | 3.7E+02 |
| Crotonaldehyde | | | 3.5E-02 | 3.5E-02 | | | | |
| Cumene (isopropylbenzene) | | | | | 2.1E+02 | | 9.1E+02 | 1.7E+02 |
| Cyanazine | | | 8.0E-02 | 8.0E-02 | | | 1.8E+01 | 1.8E+01 |
| Cyanide (free) | | | | | | | 1.8E+02 | 1.8E+02 |
| Cyanide (hydrogen) | | | | | 1.6E+00 | | 1.8E+02 | 1.6E+00 |
| Cyanogen | | | | | | | 3.7E+02 | 3.7E+02 |
| Cyanogen bromide | | | | | | | 8.2E+02 | 8.2E+02 |
| Cyanogen chloride | | | | | | | 4.6E+02 | 4.6E+02 |
| Cyclohexane | | | | | 3.1E+03 | | | 3.1E+03 |
| Cyclohexanone | | | | | | | 4.6E+04 | 4.6E+04 |

**TABLE B-3
VCP REMEDIATION GOALS FOR GROUND WATER**

| CONTAMINANT | RESIDENTIAL GROUND WATER | | | | | | | |
|--|--------------------------|----------------------|------------------------|--------------------|------------------------|----------------------|------------------------|--------------------|
| | Cancer Risk = 1E-06 | | | | Chronic HQ = 0.25 | | | |
| | water-inhale (ug/l) | water-derm (ug/l) | water-ingest (ug/l) | combined (ug/l) | water-inhale (ug/l) | water-derm (ug/l) | water-ingest (ug/l) | combined (ug/l) |
| Cyclohexylamine | | | | | | | 1.8E+03 | 1.8E+03 |
| Cyhalothrin/Karate | | | | | | | 4.6E+01 | 4.6E+01 |
| Cypermethrin | | | | | | | 9.1E+01 | 9.1E+01 |
| Cyromazine | | | | | | | 6.8E+01 | 6.8E+01 |
| Dacthal | | | | | | | 9.1E+01 | 9.1E+01 |
| Dalapon | | | | | | | 2.7E+02 | 2.7E+02 |
| Danitol | | | | | | | 2.3E+02 | 2.3E+02 |
| DDD | | 1.9E-01 | 2.8E-01 | 1.1E-01 | | | | |
| DDE | | 1.5E-01 | 2.0E-01 | 8.6E-02 | | | | |
| DDT | | 8.0E-02 | 2.0E-01 | 5.7E-02 | | 4.0E-01 | 4.6E+00 | 3.6E-01 |
| Decabromodiphenyl ether | | | | | | | 9.1E+01 | 9.1E+01 |
| Demeton | | | | | | | 3.7E-01 | 3.7E-01 |
| Diallate | | | 1.1E+00 | 1.1E+00 | | | | |
| Diazinon | | | | | | | 8.2E+00 | 8.2E+00 |
| Dibenzofuran | | | | | | | 1.8E+01 | 1.8E+01 |
| 1,4-Dibromobenzene | | | | | | | 9.1E+01 | 9.1E+01 |
| Dibromochloromethane | | | 8.0E-01 | 8.0E-01 | | | 1.8E+02 | 1.8E+02 |
| 1,2-Dibromo-3-chloropropane | | | 4.8E-02 | 4.8E-02 | | | | |
| 1,2-Dibromoethane | 2.2E-02 | | 7.9E-04 | 7.6E-04 | 1.0E-01 | | | 1.0E-01 |
| Dibutyl phthalate | | | | | | 1.1E+03 | 9.1E+02 | 5.1E+02 |
| Dicamba | | | | | | | 2.7E+02 | 2.7E+02 |
| 1,2-Dichlorobenzene | | | | | 1.0E+02 | 1.2E+03 | 8.2E+02 | 8.6E+01 |
| 1,3-Dichlorobenzene | | | | | 4.2E+00 | 9.9E+00 | 9.1E+00 | 2.2E+00 |
| 1,4-Dichlorobenzene | | 1.9E+01 | 2.8E+00 | 2.4E+00 | 4.2E+02 | 3.3E+01 | 2.2E+01 | 1.3E+01 |
| 3,3-Dichlorobenzidine | | 1.7E+00 | 1.5E-01 | 1.4E-01 | | | | |
| 4,4'-Dichlorobenzophenone | | | | | | | 2.7E+02 | 2.7E+02 |
| 1,4-Dichloro-2-butene | 1.9E-03 | | | 1.9E-03 | | | | |
| Dichlorodifluoromethane | | | | | 1.0E+02 | 1.5E+04 | 1.8E+03 | 9.8E+01 |
| 1,1-Dichloroethane | | | | | 2.6E+02 | | 9.1E+02 | 2.0E+02 |
| 1,2-Dichloroethane | 1.9E-01 | | 7.4E-01 | 1.5E-01 | 2.6E+00 | | 1.8E+02 | 2.5E+00 |
| 1,1-Dichloroethylene | | | | | 1.0E+02 | 3.4E+03 | 4.6E+02 | 8.3E+01 |
| 1,2-Dichloroethylene (cis) | | | | | | | 9.1E+01 | 9.1E+01 |
| 1,2-Dichloroethylene (trans) | | | | | | | 1.8E+02 | 1.8E+02 |
| 2,4-Dichlorophenol | | | | | | 7.5E+01 | 2.7E+01 | 2.0E+01 |
| 4-(2,4-Dichlorophenoxy)butyric Acid (2,4-DB) | | | | | | | 7.3E+01 | 7.3E+01 |
| 2,4-Dichlorophenoxyacetic Acid (2,4-D) | | | | | | | 9.1E+01 | 9.1E+01 |
| 1,2-Dichloropropane | | | 9.9E-01 | 9.9E-01 | 2.1E+00 | | | 2.1E+00 |
| 1,3-Dichloropropene | 1.2E+00 | | 6.7E-01 | 4.3E-01 | 1.0E+01 | | 2.7E+02 | 1.0E+01 |
| 2,3-Dichloropropanol | | | | | | | 2.7E+01 | 2.7E+01 |
| Dichlorvos | | | 2.3E-01 | 2.3E-01 | | | 4.6E+00 | 4.6E+00 |
| Dicofol | | | 1.5E-01 | 1.5E-01 | | | | |
| Dicyclopentadiene | | | | | 1.0E-01 | | 2.7E+02 | 1.0E-01 |
| Dieldrin | 1.1E-03 | 2.8E-02 | 4.2E-03 | 8.2E-04 | | 6.4E-01 | 4.6E-01 | 2.7E-01 |
| Diethylene glycol, monobutyl ether | | | | | | | 9.1E+01 | 9.1E+01 |
| Diethylene glycol, monoethyl ether | | | | | | | 5.5E+02 | 5.5E+02 |
| Diethylformamide | | | | | | | 3.7E+00 | 3.7E+00 |
| Di(2-ethylhexyl)adipate | | | 5.6E+01 | 5.6E+01 | | | 5.5E+03 | 5.5E+03 |
| Diethyl phthalate | | | | | | 7.2E+04 | 7.3E+03 | 6.6E+03 |
| Diethylstilbestrol | | | 1.4E-05 | 1.4E-05 | | | | |

**TABLE B-3
VCP REMEDIATION GOALS FOR GROUND WATER**

| CONTAMINANT | RESIDENTIAL GROUND WATER | | | | | | | |
|--|--------------------------|----------------------|------------------------|--------------------|------------------------|----------------------|------------------------|--------------------|
| | Cancer Risk = 1E-06 | | | | Chronic HQ = 0.25 | | | |
| | water-inhale (ug/l) | water-derm (ug/l) | water-ingest (ug/l) | combined (ug/l) | water-inhale (ug/l) | water-derm (ug/l) | water-ingest (ug/l) | combined (ug/l) |
| Difenzoquat (Avenge) | | | | | | | 7.3E+02 | 7.3E+02 |
| Diflubenzuron | | | | | | | 1.8E+02 | 1.8E+02 |
| 1,1-Difluoroethane | | | | | | | | |
| Diisononyl phthalate | | | | | | | 1.8E+02 | 1.8E+02 |
| Diisopropyl methylphosphonate | | | | | | | 7.3E+02 | 7.3E+02 |
| Dimethipin | | | | | | | 1.8E+02 | 1.8E+02 |
| Dimethoate | | | | | | | 1.8E+00 | 1.8E+00 |
| 3,3'-Dimethoxybenzidine | | | 4.8E+00 | 4.8E+00 | | | | |
| Dimethylamine | | | | | 1.0E-02 | | | 1.0E-02 |
| N-N-Dimethylaniline | | | | | | | 1.8E+01 | 1.8E+01 |
| 2,4-Dimethylaniline | | | 9.0E-02 | 9.0E-02 | | | | |
| 2,4-Dimethylaniline hydrochloride | | | 1.2E-01 | 1.2E-01 | | | | |
| 3,3'-Dimethylbenzidine | | | 2.9E-02 | 2.9E-02 | | | | |
| N,N-Dimethylformamide | | | | | | | 9.1E+02 | 9.1E+02 |
| Dimethylphenethylamine | | | | | | | 9.1E+00 | 9.1E+00 |
| 2,4-Dimethylphenol | | | | | | 1.2E+03 | 1.8E+02 | 1.6E+02 |
| 2,6-Dimethylphenol | | | | | | | 5.5E+00 | 5.5E+00 |
| 3,4-Dimethylphenol | | | | | | 6.8E+01 | 9.1E+00 | 8.1E+00 |
| Dimethyl phthalate | | | | | | | 9.1E+04 | 9.1E+04 |
| Dimethyl terephthalate | | | | | | | 9.1E+02 | 9.1E+02 |
| 4,6-Dinitro-o-cyclohexyl phenol | | | | | | | 1.8E+01 | 1.8E+01 |
| 1,2-Dinitrobenzene | | | | | | | 9.1E-01 | 9.1E-01 |
| 1,3-Dinitrobenzene | | | | | | | 9.1E-01 | 9.1E-01 |
| 1,4-Dinitrobenzene | | | | | | | 9.1E-01 | 9.1E-01 |
| 2,4-Dinitrophenol | | | | | | | 1.8E+01 | 1.8E+01 |
| Dinitrotoluene mixture | | | 9.9E-02 | 9.9E-02 | | | | |
| 2,4-Dinitrotoluene | | | | | | | 1.8E+01 | 1.8E+01 |
| 2,6-Dinitrotoluene | | | | | | | 9.1E+00 | 9.1E+00 |
| Dinoseb | | | | | | | 9.1E+00 | 9.1E+00 |
| di-n-Octyl phthalate | | | | | | | 3.7E+02 | 3.7E+02 |
| 1,4-Dioxane | | | 6.1E+00 | 6.1E+00 | | | | |
| Dioxin (2,3,7,8-TCDD) | | | 4.5E-07 | 4.5E-07 | | | | |
| Diphenamid | | | | | | | 2.7E+02 | 2.7E+02 |
| Diphenylamine | | | | | | | 2.3E+02 | 2.3E+02 |
| N,N-Diphenyl-1,4 benzenediamine (DPPD) | | | | | | | 2.7E+00 | 2.7E+00 |
| 1,2-Diphenylhydrazine | | 1.5E+00 | 8.4E-02 | 8.0E-02 | | | | |
| Diphenyl sulfone | | | | | | | 2.7E+01 | 2.7E+01 |
| Diquat | | | | | | | 2.0E+01 | 2.0E+01 |
| Direct black 38 | | | 7.8E-03 | 7.8E-03 | | | | |
| Direct blue 6 | | | 8.3E-03 | 8.3E-03 | | | | |
| Direct brown 95 | | | 7.2E-03 | 7.2E-03 | | | | |
| Disulfoton | | | | | | | 3.7E-01 | 3.7E-01 |
| 1,4-Dithiane | | | | | | | 9.1E+01 | 9.1E+01 |
| Diuron | | | | | | | 1.8E+01 | 1.8E+01 |
| Dodine | | | | | | | 3.7E+01 | 3.7E+01 |
| Dysprosium | | | | | | | 1.8E+03 | 1.8E+03 |
| Endosulfan | | | | | | | 5.5E+01 | 5.5E+01 |
| Endothall | | | | | | | 1.8E+02 | 1.8E+02 |
| Endrin | | | | | | 3.9E+00 | 2.7E+00 | 1.6E+00 |

**TABLE B-3
VCP REMEDIATION GOALS FOR GROUND WATER**

| CONTAMINANT | RESIDENTIAL GROUND WATER | | | | | | | |
|--|--------------------------|----------------------|------------------------|--------------------|------------------------|----------------------|------------------------|--------------------|
| | Cancer Risk = 1E-06 | | | | Chronic HQ = 0.25 | | | |
| | water-inhale (ug/l) | water-derm (ug/l) | water-ingest (ug/l) | combined (ug/l) | water-inhale (ug/l) | water-derm (ug/l) | water-ingest (ug/l) | combined (ug/l) |
| Epichlorohydrin | 4.1E+00 | | 6.8E+00 | 2.5E+00 | 5.2E-01 | | 1.8E+01 | 5.1E-01 |
| 1,2-Epoxybutane | | | | | | | | |
| EPTC (S-Ethyl dipropylthiocarbamate) | | | | | | | 2.3E+02 | 2.3E+02 |
| Ethephon (2-chloroethyl phosphonic acid) | | | | | | | 4.6E+01 | 4.6E+01 |
| Ethion | | | | | | | 4.6E+00 | 4.6E+00 |
| 2-Ethoxyethanol | | | | | | | 3.7E+03 | 3.7E+03 |
| 2-Ethoxyethanol acetate | | | | | | | 2.7E+03 | 2.7E+03 |
| Ethyl acetate | | | | | | | 8.2E+03 | 8.2E+03 |
| Ethyl acrylate | | | 1.4E+00 | 1.4E+00 | | | | |
| Ethylbenzene | | | | | 5.2E+02 | 1.5E+03 | 9.1E+02 | 2.7E+02 |
| Ethyl chloride | | | 2.3E+01 | 2.3E+01 | 5.2E+03 | | 3.7E+03 | 2.1E+03 |
| Ethylene cyanohydrin | | | | | | | 2.7E+03 | 2.7E+03 |
| Ethylene diamine | | | | | | | 8.2E+02 | 8.2E+02 |
| Ethylene glycol | | | | | | | 1.8E+04 | 1.8E+04 |
| Ethylene glycol, monobutyl ether | | | | | | | 4.6E+03 | 4.6E+03 |
| Ethylene oxide | 4.9E-02 | | 6.6E-02 | 2.8E-02 | | | | |
| Ethylene thiourea (ETU) | | | 6.1E-01 | 6.1E-01 | | | 7.3E-01 | 7.3E-01 |
| Ethyl ether | | | | | | | 1.8E+03 | 1.8E+03 |
| Ethyl methacrylate | | | | | | | 8.2E+02 | 8.2E+02 |
| Ethyl p-nitrophenyl phenylphosphorothioate | | | | | | | 9.1E-02 | 9.1E-02 |
| Ethylphthalyl ethyl glycolate | | | | | | | 2.7E+04 | 2.7E+04 |
| Express | | | | | | | 7.3E+01 | 7.3E+01 |
| Fenamiphos | | | | | | | 2.3E+00 | 2.3E+00 |
| Fluometuron | | | | | | | 1.2E+02 | 1.2E+02 |
| Fluoride | | | | | | | 5.5E+02 | 5.5E+02 |
| Fluoridone | | | | | | | 7.3E+02 | 7.3E+02 |
| Flurprimidol | | | | | | | 1.8E+02 | 1.8E+02 |
| Flutolanil | | | | | | | 5.5E+02 | 5.5E+02 |
| Fluvalinate | | | | | | | 9.1E+01 | 9.1E+01 |
| Folpet | | | 1.9E+01 | 1.9E+01 | | | 9.1E+02 | 9.1E+02 |
| Fomesafen | | | 3.5E-01 | 3.5E-01 | | | | |
| Fonofos | | | | | | | 1.8E+01 | 1.8E+01 |
| Formaldehyde | | | | | | | 1.8E+03 | 1.8E+03 |
| Formic acid | | | | | | | 1.8E+04 | 1.8E+04 |
| Fosetyl-al | | | | | | | 2.7E+04 | 2.7E+04 |
| Freon 113 | | | | | 1.6E+04 | | 2.7E+05 | 1.5E+04 |
| Furan | | | | | | | 9.1E+00 | 9.1E+00 |
| Furazolidone | | | 1.8E-02 | 1.8E-02 | | | | |
| Furfural | | | | | | | 2.7E+01 | 2.7E+01 |
| Furium | | | 1.3E-03 | 1.3E-03 | | | | |
| Furmecyclox | | | 2.2E+00 | 2.2E+00 | | | | |
| Glufosinate-ammonium | | | | | | | 3.7E+00 | 3.7E+00 |
| Glycidaldehyde | | | | | | | 3.7E+00 | 3.7E+00 |
| Glyphosate | | | | | | | 9.1E+02 | 9.1E+02 |
| Haloxyfop-methyl | | | | | | | 4.6E-01 | 4.6E-01 |
| Harmony | | | | | | | 1.2E+02 | 1.2E+02 |
| Heptachlor | 3.7E-03 | 1.5E-01 | 1.5E-02 | 2.9E-03 | | 9.6E+00 | 4.6E+00 | 3.1E+00 |
| Heptachlor epoxide | | | 7.4E-03 | 7.4E-03 | | | 1.2E-01 | 1.2E-01 |
| Hexabromobenzene | | | | | | | 1.8E+01 | 1.8E+01 |

**TABLE B-3
VCP REMEDIATION GOALS FOR GROUND WATER**

| CONTAMINANT | RESIDENTIAL GROUND WATER | | | | | | | |
|---|--------------------------|----------------------|------------------------|--------------------|------------------------|----------------------|------------------------|--------------------|
| | Cancer Risk = 1E-06 | | | | Chronic HQ = 0.25 | | | |
| | water-inhale (ug/l) | water-derm (ug/l) | water-ingest (ug/l) | combined (ug/l) | water-inhale (ug/l) | water-derm (ug/l) | water-ingest (ug/l) | combined (ug/l) |
| Hexachlorobenzene | 1.1E-02 | 4.2E-02 | 4.2E-02 | 7.0E-03 | | 1.6E+00 | 7.3E+00 | 1.3E+00 |
| Hexachlorobutadiene | 2.2E-01 | 1.6E+00 | 8.6E-01 | 1.6E-01 | | 7.5E-01 | 1.8E+00 | 5.3E-01 |
| HCH (alpha) | 2.7E-03 | | 1.1E-02 | 2.2E-03 | | | 4.6E+00 | 4.6E+00 |
| HCH (beta) | | | 3.7E-02 | 3.7E-02 | | | 1.8E+00 | 1.8E+00 |
| HCH (gamma) Lindane | | 6.1E-01 | 5.2E-02 | 4.8E-02 | | 6.9E+00 | 2.7E+00 | 2.0E+00 |
| HCH-technical | | | 3.7E-02 | 3.7E-02 | | | | |
| Hexachlorocyclopentadiene | | | | | 1.0E-01 | | 5.5E+01 | 1.0E-01 |
| Hexachloroethane | 1.2E+00 | 2.6E+01 | 4.8E+00 | 9.4E-01 | | 1.1E+01 | 9.1E+00 | 4.9E+00 |
| Hexachlorophene | | | | | | | 2.7E+00 | 2.7E+00 |
| Hexahydro-1,3,5-trinitro-1,3,5-triazine | | | 6.1E-01 | 6.1E-01 | | | 2.7E+01 | 2.7E+01 |
| 1,6-Hexamethylene diisocyanate | | | | | | | | |
| n-Hexane | | | | | 1.0E+02 | | 1.0E+05 | 1.0E+02 |
| Hexazinone | | | | | | | 3.0E+02 | 3.0E+02 |
| Hydrazine, hydrazine sulfate | | | 2.2E-02 | 2.2E-02 | | | | |
| Hydrazine, monomethyl | | | 2.2E-02 | 2.2E-02 | | | | |
| Hydrazine, dimethyl | | | 2.2E-02 | 2.2E-02 | | | | |
| Hydrogen chloride | | | | | | | | |
| Hydrogen cyanide | | | | | 1.6E+00 | | 1.8E+02 | 1.6E+00 |
| Hydrogen sulfide | | | | | | | 2.7E+01 | 2.7E+01 |
| p-Hydroquinone | | | | | | | 3.7E+02 | 3.7E+02 |
| Imazalil | | | | | | | 1.2E+02 | 1.2E+02 |
| Imazaquin | | | | | | | 2.3E+03 | 2.3E+03 |
| Iprodione | | | | | | | 3.7E+02 | 3.7E+02 |
| Iron | | | | | | | 2.7E+03 | 2.7E+03 |
| Isobutanol | | | | | | | 2.7E+03 | 2.7E+03 |
| Isophorone | | | 7.1E+01 | 7.1E+01 | | | 1.8E+03 | 1.8E+03 |
| Isopropalin | | | | | | | 1.4E+02 | 1.4E+02 |
| Isopropyl methyl phosphonic acid | | | | | | | 9.1E+02 | 9.1E+02 |
| Isoxaben | | | | | | | 4.6E+02 | 4.6E+02 |
| Kepone | | | 8.4E-03 | 8.4E-03 | | | 1.8E+00 | 1.8E+00 |
| Lactofen | | | | | | | 1.8E+01 | 1.8E+01 |
| Lead+++ | | | | | | | | |
| Lead (tetraethyl) | | | | | | | 9.1E-04 | 9.1E-04 |
| Linuron | | | | | | | 1.8E+01 | 1.8E+01 |
| Lithium | | | | | | | 1.8E+02 | 1.8E+02 |
| Londax | | | | | | | 1.8E+03 | 1.8E+03 |
| Malathion | | | | | | | 1.8E+02 | 1.8E+02 |
| Maleic anhydride | | | | | | | 9.1E+02 | 9.1E+02 |
| Maleic hydrazide | | | | | | | 4.6E+03 | 4.6E+03 |
| Malononitrile | | | | | | | 9.1E-01 | 9.1E-01 |
| Mancozeb | | | | | | | 2.7E+02 | 2.7E+02 |
| Maneb | | | 1.1E+00 | 1.1E+00 | | | 4.6E+01 | 4.6E+01 |
| Manganese (non-food)+++ | | | | | | | 2.2E+02 | 2.2E+02 |
| Mephosfolan | | | | | | | 8.2E-01 | 8.2E-01 |
| Mepiquat | | | | | | | 2.7E+02 | 2.7E+02 |
| 2-Mercaptobenzothiazole | | | 2.3E+00 | 2.3E+00 | | | 9.1E+02 | 9.1E+02 |
| Mercury and compounds | | | | | | | 2.7E+00 | 2.7E+00 |
| Mercury (elemental) | | | | | | | | |
| Mercury (methyl) | | | | | | | 9.1E-01 | 9.1E-01 |

**TABLE B-3
VCP REMEDIATION GOALS FOR GROUND WATER**

| CONTAMINANT | RESIDENTIAL GROUND WATER | | | | | | | |
|--|--------------------------|----------------------|------------------------|--------------------|------------------------|----------------------|------------------------|--------------------|
| | Cancer Risk = 1E-06 | | | | Chronic HQ = 0.25 | | | |
| | water-inhale (ug/l) | water-derm (ug/l) | water-ingest (ug/l) | combined (ug/l) | water-inhale (ug/l) | water-derm (ug/l) | water-ingest (ug/l) | combined (ug/l) |
| Merphos | | | | | | | 2.7E-01 | 2.7E-01 |
| Merphos oxide | | | | | | | 2.7E-01 | 2.7E-01 |
| Metalaxyl | | | | | | | 5.5E+02 | 5.5E+02 |
| Methacrylonitrile | | | | | 3.7E-01 | | 9.1E-01 | 2.6E-01 |
| Methamidophos | | | | | | | 4.6E-01 | 4.6E-01 |
| Methanol | | | | | | | 4.6E+03 | 4.6E+03 |
| Methidathion | | | | | | | 9.1E+00 | 9.1E+00 |
| Methomyl | | | | | | | 2.3E+02 | 2.3E+02 |
| Methoxychlor | | | | | | | 4.6E+01 | 4.6E+01 |
| 2-Methoxyethanol | | | | | | | 9.1E+00 | 9.1E+00 |
| 2-Methoxyethanol acetate | | | | | | | 1.8E+01 | 1.8E+01 |
| 2-Methoxy-5-nitroaniline | | | 1.5E+00 | 1.5E+00 | | | | |
| Methyl acetate | | | | | | | 9.1E+03 | 9.1E+03 |
| Methyl acrylate | | | | | | | 2.7E+02 | 2.7E+02 |
| 2-Methylaniline (o-toluidine) | | | 2.8E-01 | 2.8E-01 | | | | |
| 2-Methylaniline hydrochloride | | | 3.7E-01 | 3.7E-01 | | | | |
| 2-Methyl-4-chlorophenoxyacetic acid (MCPA) | | | | | | | 4.6E+00 | 4.6E+00 |
| 4-(2-Methyl-4-chlorophenoxy) butyric acid (MCPB) | | | | | | | 9.1E+01 | 9.1E+01 |
| 2-(2-Methyl-4-chlorophenoxy) propionic acid | | | | | | | 9.1E+00 | 9.1E+00 |
| 2-(2-Methyl-1,4-chlorophenoxy) propionic acid (MCPB) | | | | | | | 9.1E+00 | 9.1E+00 |
| Methylcyclohexane | | | | | 1.6E+03 | | | 1.6E+03 |
| 4,4'-Methylenebisbenzeneamine | | | 2.7E-01 | 2.7E-01 | | | | |
| 4,4'-Methylene bis(2-chloroaniline) | | 3.7E+00 | 5.2E-01 | 4.5E-01 | | 9.9E+00 | 6.4E+00 | 3.9E+00 |
| 4,4'-Methylene bis(N,N'-dimethyl)aniline | | 2.5E+00 | 1.5E+00 | 9.3E-01 | | | | |
| Methylene bromide | | | | | | | 9.1E+01 | 9.1E+01 |
| Methylene chloride | 1.0E+01 | | 9.0E+00 | 4.8E+00 | 1.6E+03 | | 5.5E+02 | 4.1E+02 |
| 4,4'-Methylenediphenyl isocyanate | | | | | | | | |
| Methyl ethyl ketone | | | | | 2.6E+03 | | 5.5E+03 | 1.8E+03 |
| Methyl isobutyl ketone | | | | | 1.6E+03 | | 7.3E+02 | 5.0E+02 |
| Methyl mercaptan | | | | | | | | |
| Methyl methacrylate | | | | | 3.7E+02 | | 1.3E+04 | 3.5E+02 |
| 2-Methyl-5-nitroaniline | | | 2.0E+00 | 2.0E+00 | | | | |
| Methyl parathion | | | | | | | 2.3E+00 | 2.3E+00 |
| 2-Methylphenol | | | | | | | 4.6E+02 | 4.6E+02 |
| 3-Methylphenol | | | | | | | 4.6E+02 | 4.6E+02 |
| 4-Methylphenol | | | | | | | 4.6E+01 | 4.6E+01 |
| Methyl phosphonic acid | | | | | | | 1.8E+02 | 1.8E+02 |
| Methyl styrene (mixture) | | | | | 2.1E+01 | | 5.5E+01 | 1.5E+01 |
| Methyl styrene (alpha) | | | | | | | 6.4E+02 | 6.4E+02 |
| Methyl tertbutyl ether (MTBE) | 4.9E+00 | | 2.0E+01 | 3.9E+00 | 1.6E+03 | | | 1.6E+03 |
| Metolaclor (Dual) | | | | | | | 1.4E+03 | 1.4E+03 |
| Metribuzin | | | | | | | 2.3E+02 | 2.3E+02 |
| Mirex | | | 3.7E-02 | 3.7E-02 | | | 1.8E+00 | 1.8E+00 |
| Molinate | | | | | | | 1.8E+01 | 1.8E+01 |
| Molybdenum | | | | | | | 4.6E+01 | 4.6E+01 |
| Monochloramine | | | | | | | 9.1E+02 | 9.1E+02 |
| Naled | | | | | | | 1.8E+01 | 1.8E+01 |
| Napropamide | | | | | | | 9.1E+02 | 9.1E+02 |
| Nickel and compounds | | | | | | | 1.8E+02 | 1.8E+02 |

**TABLE B-3
VCP REMEDIATION GOALS FOR GROUND WATER**

| CONTAMINANT | RESIDENTIAL GROUND WATER | | | | | | | |
|---|--------------------------|----------------------|------------------------|--------------------|------------------------|----------------------|------------------------|--------------------|
| | Cancer Risk = 1E-06 | | | | Chronic HQ = 0.25 | | | |
| | water-inhale (ug/l) | water-derm (ug/l) | water-ingest (ug/l) | combined (ug/l) | water-inhale (ug/l) | water-derm (ug/l) | water-ingest (ug/l) | combined (ug/l) |
| Nickel refinery dust | | | | | | | | |
| Nickel subsulfide | | | | | | | | |
| Nitrate | | | | | | | 1.5E+04 | 1.5E+04 |
| Nitrite | | | | | | | 9.1E+02 | 9.1E+02 |
| 2-Nitroaniline | | | | | | | 2.7E+01 | 2.7E+01 |
| Nitrobenzene | | | | | 1.0E+00 | | 4.6E+00 | 8.5E-01 |
| Nitrofurantoin | | | | | | | 6.4E+02 | 6.4E+02 |
| Nitrofurazone | | | 4.5E-02 | 4.5E-02 | | | | |
| Nitroglycerin | | | 4.8E+00 | 4.8E+00 | | | | |
| Nitroguanidine | | | | | | | 9.1E+02 | 9.1E+02 |
| 2-Nitropropane | | | | | | | | |
| N-Nitrosodi-n-butylamine | 3.0E-03 | | 1.2E-02 | 2.4E-03 | | | | |
| N-Nitrosodiethanolamine | | | 2.4E-02 | 2.4E-02 | | | | |
| N-Nitrosodiethylamine | | | 4.5E-04 | 4.5E-04 | | | | |
| N-Nitrosodimethylamine | | | 1.3E-03 | 1.3E-03 | | | 7.3E-02 | 7.3E-02 |
| N-Nitrosodiphenylamine | | 2.0E+02 | 1.4E+01 | 1.3E+01 | | 5.6E+02 | 1.8E+02 | 1.4E+02 |
| N-Nitroso di-n-propylamine | | | 9.6E-03 | 9.6E-03 | | | | |
| N-Nitroso-N-methylethylamine | | | 3.1E-03 | 3.1E-03 | | | | |
| N-Nitrosopyrrolidine | | | 3.2E-02 | 3.2E-02 | | | | |
| m-Nitrotoluene | | | | | | | 1.8E+02 | 1.8E+02 |
| o-Nitrotoluene | | | 2.9E-01 | 2.9E-01 | | | 9.1E+01 | 9.1E+01 |
| p-Nitrotoluene | | | 4.0E+00 | 4.0E+00 | | | 9.1E+01 | 9.1E+01 |
| Norflurazon | | | | | | | 3.7E+02 | 3.7E+02 |
| NuStar | | | | | | | 6.4E+00 | 6.4E+00 |
| Octabromodiphenyl ether | | | | | | | 2.7E+01 | 2.7E+01 |
| Octahydro-1357-tetranitro-1357- tetrazocine (HMX) | | | | | | | 4.6E+02 | 4.6E+02 |
| Octamethylpyrophosphoramidate | | | | | | | 1.8E+01 | 1.8E+01 |
| Oryzalin | | | | | | | 4.6E+02 | 4.6E+02 |
| Oxadiazon | | | | | | | 4.6E+01 | 4.6E+01 |
| Oxamyl | | | | | | | 2.3E+02 | 2.3E+02 |
| Oxyfluorfen | | | | | | | 2.7E+01 | 2.7E+01 |
| Paclobutrazol | | | | | | | 1.2E+02 | 1.2E+02 |
| Paraquat | | | | | | | 4.1E+01 | 4.1E+01 |
| Parathion | | | | | | 1.2E+02 | 5.5E+01 | 3.7E+01 |
| Pebulate | | | | | | | 4.6E+02 | 4.6E+02 |
| Pendimethalin | | | | | | | 3.7E+02 | 3.7E+02 |
| Pentabromo-6-chloro cyclohexane | | | 2.9E+00 | 2.9E+00 | | | | |
| Pentabromodiphenyl ether | | | | | | | 1.8E+01 | 1.8E+01 |
| Pentachlorobenzene | | | | | | | 7.3E+00 | 7.3E+00 |
| Pentachloronitrobenzene | | 7.7E-01 | 2.6E-01 | 1.9E-01 | | 1.7E+01 | 2.7E+01 | 1.1E+01 |
| Pentachlorophenol | | 2.1E-01 | 5.6E-01 | 1.5E-01 | | 2.2E+01 | 2.7E+02 | 2.1E+01 |
| Perchlorate | | | | | | | 9.1E-01 | 9.1E-01 |
| Permethrin | | | | | | | 4.6E+02 | 4.6E+02 |
| Phenmedipham | | | | | | | 2.3E+03 | 2.3E+03 |
| Phenol | | | | | | | 2.7E+03 | 2.7E+03 |
| Phenothiazine | | | | | | | 1.8E+01 | 1.8E+01 |
| m-Phenylenediamine | | | | | | | 5.5E+01 | 5.5E+01 |
| p-Phenylenediamine | | | | | | | 1.7E+03 | 1.7E+03 |
| Phenylmercuric acetate | | | | | | | 7.3E-01 | 7.3E-01 |

**TABLE B-3
VCP REMEDIATION GOALS FOR GROUND WATER**

| CONTAMINANT | RESIDENTIAL GROUND WATER | | | | | | | |
|-----------------------------------|--------------------------|----------------------|------------------------|--------------------|------------------------|----------------------|------------------------|--------------------|
| | Cancer Risk = 1E-06 | | | | Chronic HQ = 0.25 | | | |
| | water-inhale (ug/l) | water-derm (ug/l) | water-ingest (ug/l) | combined (ug/l) | water-inhale (ug/l) | water-derm (ug/l) | water-ingest (ug/l) | combined (ug/l) |
| 2-Phenylphenol | | | 3.5E+01 | 3.5E+01 | | | | |
| Phorate | | | | | | | 1.8E+00 | 1.8E+00 |
| Phosmet | | | | | | | 1.8E+02 | 1.8E+02 |
| Phosphine | | | | | | | 2.7E+00 | 2.7E+00 |
| Phosphoric acid | | | | | | | | |
| Phosphorus (white) | | | | | | | 1.8E-01 | 1.8E-01 |
| p-Phthalic acid | | | | | | | 9.1E+03 | 9.1E+03 |
| Phthalic anhydride | | | | | | | 1.8E+04 | 1.8E+04 |
| Picloram | | | | | | | 6.4E+02 | 6.4E+02 |
| Pirimiphos-methyl | | | | | | | 9.1E+01 | 9.1E+01 |
| Polybrominated biphenyls | | | 7.6E-03 | 7.6E-03 | | | 6.4E-02 | 6.4E-02 |
| Polychlorinated biphenyls (PCBs) | | 1.1E-02 | 3.4E-02 | 8.5E-03 | | | | |
| Aroclor 1016 | | | 9.6E-01 | 9.6E-01 | | | 6.4E-01 | 6.4E-01 |
| Aroclor 1221 | | | 3.4E-02 | 3.4E-02 | | | | |
| Aroclor 1232 | | | 3.4E-02 | 3.4E-02 | | | | |
| Aroclor 1242 | | | 3.4E-02 | 3.4E-02 | | | | |
| Aroclor 1248 | | | 3.4E-02 | 3.4E-02 | | | | |
| Aroclor 1254 | | | 3.4E-02 | 3.4E-02 | | | 1.8E-01 | 1.8E-01 |
| Aroclor 1260 | | | 3.4E-02 | 3.4E-02 | | | | |
| Polychlorinated terphenyls | | | 1.5E-02 | 1.5E-02 | | | | |
| Polynuclear aromatic hydrocarbons | | | | | | | | |
| Acenaphthene | | | | | | | 5.5E+02 | 5.5E+02 |
| Anthracene | | | | | | | 2.7E+03 | 2.7E+03 |
| Benz[a]anthracene | | 3.3E-02 | 9.2E-02 | 2.5E-02 | | | | |
| Benzo[b]fluoranthene | | 1.9E-02 | 9.2E-02 | 1.6E-02 | | | | |
| Benzo[k]fluoranthene | | | 9.2E-01 | 9.2E-01 | | | | |
| Benzo[a]pyrene | | 2.0E-03 | 9.2E-03 | 1.6E-03 | | | | |
| Chrysene | | 3.3E+00 | 9.2E+00 | 2.5E+00 | | | | |
| Dibenz[ah]anthracene | | 1.3E-03 | 9.2E-03 | 1.1E-03 | | | | |
| Fluoranthene | | | | | | 7.2E+01 | 3.7E+02 | 6.0E+01 |
| Fluorene | | | | | | | 3.7E+02 | 3.7E+02 |
| Indeno[1,2,3-cd]pyrene | | 1.9E-02 | 9.2E-02 | 1.5E-02 | | | | |
| Naphthalene | | | | | 1.6E+00 | 2.8E+02 | 1.8E+02 | 1.5E+00 |
| Pyrene | | | | | | | 2.7E+02 | 2.7E+02 |
| Prochloraz | | | 4.5E-01 | 4.5E-01 | | | 8.2E+01 | 8.2E+01 |
| Profluralin | | | | | | | 5.5E+01 | 5.5E+01 |
| Prometon | | | | | | | 1.4E+02 | 1.4E+02 |
| Prometryn | | | | | | | 3.7E+01 | 3.7E+01 |
| Pronamide | | | | | | | 6.8E+02 | 6.8E+02 |
| Propachlor | | | | | | | 1.2E+02 | 1.2E+02 |
| Propanil | | | | | | | 4.6E+01 | 4.6E+01 |
| Propargite | | | | | | | 1.8E+02 | 1.8E+02 |
| Propargyl alcohol | | | | | | | 1.8E+01 | 1.8E+01 |
| Propazine | | | | | | | 1.8E+02 | 1.8E+02 |
| Propham | | | | | | | 1.8E+02 | 1.8E+02 |
| Propiconazole | | | | | | | 1.2E+02 | 1.2E+02 |
| n-Propylbenzene | | | | | | | 3.7E+02 | 3.7E+02 |
| Propylene glycol | | | | | | | 4.6E+03 | 4.6E+03 |
| Propylene glycol, monoethyl ether | | | | | | | 6.4E+03 | 6.4E+03 |

**TABLE B-3
VCP REMEDIATION GOALS FOR GROUND WATER**

| CONTAMINANT | RESIDENTIAL GROUND WATER | | | | | | | |
|------------------------------------|--------------------------|----------------------|------------------------|--------------------|------------------------|----------------------|------------------------|--------------------|
| | Cancer Risk = 1E-06 | | | | Chronic HQ = 0.25 | | | |
| | water-inhale (ug/l) | water-derm (ug/l) | water-ingest (ug/l) | combined (ug/l) | water-inhale (ug/l) | water-derm (ug/l) | water-ingest (ug/l) | combined (ug/l) |
| Propylene glycol, monomethyl ether | | | | | | | 6.4E+03 | 6.4E+03 |
| Propylene oxide | 1.3E+00 | | 2.8E-01 | 2.3E-01 | 1.6E+01 | | | 1.6E+01 |
| Pursuit | | | | | | | 2.3E+03 | 2.3E+03 |
| Pydrin | | | | | | | 2.3E+02 | 2.3E+02 |
| Pyridine | | | | | | | 9.1E+00 | 9.1E+00 |
| Quinalphos | | | | | | | 4.6E+00 | 4.6E+00 |
| Quinoline | | | 2.2E-02 | 2.2E-02 | | | | |
| RDX (Cyclonite) | | | 6.1E-01 | 6.1E-01 | | | 2.7E+01 | 2.7E+01 |
| Resmethrin | | | | | | | 2.7E+02 | 2.7E+02 |
| Ronnel | | | | | | | 4.6E+02 | 4.6E+02 |
| Rotenone | | | | | | | 3.7E+01 | 3.7E+01 |
| Savey | | | | | | | 2.3E+02 | 2.3E+02 |
| Selenious Acid | | | | | | | 4.6E+01 | 4.6E+01 |
| Selenium | | | | | | | 4.6E+01 | 4.6E+01 |
| Selenourea | | | | | | | 4.6E+01 | 4.6E+01 |
| Sethoxydim | | | | | | | 8.2E+02 | 8.2E+02 |
| Silver and compounds | | | | | | | 4.6E+01 | 4.6E+01 |
| Simazine | | | 5.6E-01 | 5.6E-01 | | | 4.6E+01 | 4.6E+01 |
| Sodium azide | | | | | | | 3.7E+01 | 3.7E+01 |
| Sodium diethyldithiocarbamate | | | 2.5E-01 | 2.5E-01 | | | 2.7E+02 | 2.7E+02 |
| Sodium fluoroacetate | | | | | | | 1.8E-01 | 1.8E-01 |
| Sodium metavanadate | | | | | | | 9.1E+00 | 9.1E+00 |
| Strontium, stable | | | | | | | 5.5E+03 | 5.5E+03 |
| Strychnine | | | | | | | 2.7E+00 | 2.7E+00 |
| Styrene | | | | | 5.2E+02 | 4.0E+03 | 1.8E+03 | 3.7E+02 |
| 1,1'-Sulfonylbis (4-chlorobenzene) | | | | | | | 4.6E+01 | 4.6E+01 |
| Systhane | | | | | | | 2.3E+02 | 2.3E+02 |
| 2,3,7,8-TCDD (dioxin) | | 1.0E-07 | 4.5E-07 | 8.5E-08 | | | | |
| Tebuthiuron | | | | | | | 6.4E+02 | 6.4E+02 |
| Temephos | | | | | | | 1.8E+02 | 1.8E+02 |
| Terbacil | | | | | | | 1.2E+02 | 1.2E+02 |
| Terbufos | | | | | | | 2.3E-01 | 2.3E-01 |
| Terbutryn | | | | | | | 9.1E+00 | 9.1E+00 |
| 1,2,4,5-Tetrachlorobenzene | | | | | | | 2.7E+00 | 2.7E+00 |
| 1,1,1,2-Tetrachloroethane | 6.6E-01 | | 2.6E+00 | 5.2E-01 | | | 2.7E+02 | 2.7E+02 |
| 1,1,2,2-Tetrachloroethane | 8.4E-02 | 1.2E+01 | 3.4E-01 | 6.7E-02 | | 4.3E+03 | 5.5E+02 | 4.9E+02 |
| Tetrachloroethylene (PCE) | 8.1E-01 | 9.6E-01 | 1.2E-01 | 9.7E-02 | 2.1E+02 | 1.5E+02 | 9.1E+01 | 4.5E+01 |
| 2,3,4,6-Tetrachlorophenol | | | | | | | 2.7E+02 | 2.7E+02 |
| p,a,a,a-Tetrachlorotoluene | | | 3.4E-03 | 3.4E-03 | | | | |
| Tetrachlorovinphos | | | 2.8E+00 | 2.8E+00 | | | 2.7E+02 | 2.7E+02 |
| Tetraethylthiopyrophosphate | | | | | | | 4.6E+00 | 4.6E+00 |
| Tetrahydrofuran | 2.4E+00 | | 8.8E+00 | 1.9E+00 | 1.6E+02 | | 1.9E+03 | 1.4E+02 |
| Thallium and compounds+++ | | | | | | | 6.0E-01 | 6.0E-01 |
| Thiobencarb | | | | | | | 9.1E+01 | 9.1E+01 |
| Thiocyanate | | | | | | | 9.1E-01 | 9.1E-01 |
| Thiofanox | | | | | | | 2.7E+00 | 2.7E+00 |
| Thiophanate-methyl | | | | | | | 7.3E+02 | 7.3E+02 |
| Thiram | | | | | | | 4.6E+01 | 4.6E+01 |
| Tin and compounds | | | | | | | 5.5E+03 | 5.5E+03 |

**TABLE B-3
VCP REMEDIATION GOALS FOR GROUND WATER**

| CONTAMINANT | RESIDENTIAL GROUND WATER | | | | | | | |
|---|--------------------------|----------------------|------------------------|--------------------|------------------------|----------------------|------------------------|--------------------|
| | Cancer Risk = 1E-06 | | | | Chronic HQ = 0.25 | | | |
| | water-inhale (ug/l) | water-derm (ug/l) | water-ingest (ug/l) | combined (ug/l) | water-inhale (ug/l) | water-derm (ug/l) | water-ingest (ug/l) | combined (ug/l) |
| Toluene | | | | | 2.1E+02 | 5.2E+03 | 1.8E+03 | 1.8E+02 |
| Toluene-2,4-diamine | | | 2.1E-02 | 2.1E-02 | | | | |
| Toluene-2,5-diamine | | | | | | | 5.5E+03 | 5.5E+03 |
| Toluene-2,6-diamine | | | | | | | 1.8E+03 | 1.8E+03 |
| p-Toluidine | | | 3.5E-01 | 3.5E-01 | | | | |
| Toxaphene | | 3.3E-01 | 6.1E-02 | 5.2E-02 | | | | |
| Tralomethrin | | | | | | | 6.8E+01 | 6.8E+01 |
| Triallate | | | | | | | 1.2E+02 | 1.2E+02 |
| Triasulfuron | | | | | | | 9.1E+01 | 9.1E+01 |
| 1,2,4-Tribromobenzene | | | | | | | 4.6E+01 | 4.6E+01 |
| Tributyltin oxide (TBTO) | | | | | | | 2.7E+00 | 2.7E+00 |
| 2,4,6-Trichloroaniline | | | 2.0E+00 | 2.0E+00 | | | | |
| 2,4,6-Trichloroaniline hydrochloride | | | 2.3E+00 | 2.3E+00 | | | | |
| 1,2,4-Trichlorobenzene | | | | | 2.1E+00 | 6.9E+01 | 9.1E+01 | 2.0E+00 |
| 1,1,1-Trichloroethane | | | | | 1.1E+03 | 1.4E+04 | 2.6E+03 | 7.5E+02 |
| 1,1,2-Trichloroethane | 3.0E-01 | | 1.2E+00 | 2.4E-01 | | | 3.7E+01 | 3.7E+01 |
| Trichloroethylene (TCE) | 4.4E-02 | 4.6E+00 | 1.7E-01 | 3.5E-02 | 2.1E+01 | 1.6E+01 | 2.7E+00 | 2.1E+00 |
| Trichlorofluoromethane | | | | | 3.7E+02 | 1.4E+04 | 2.7E+03 | 3.1E+02 |
| 2,4,5-Trichlorophenol | | | | | | | 9.1E+02 | 9.1E+02 |
| 2,4,6-Trichlorophenol | | 3.7E+01 | 6.1E+00 | 5.2E+00 | | 1.2E+00 | 9.1E-01 | 5.2E-01 |
| 2,4,5-Trichlorophenoxyacetic acid | | | | | | | 9.1E+01 | 9.1E+01 |
| 2-(2,4,5-Trichlorophenoxy) propionic acid | | | | | | | 7.3E+01 | 7.3E+01 |
| 1,1,2-Trichloropropane | | | | | | | 4.6E+01 | 4.6E+01 |
| 1,2,3-Trichloropropane | | | 9.6E-03 | 9.6E-03 | 2.1E-01 | | 5.5E+01 | 2.1E-01 |
| 1,2,3-Trichloropropene | | | | | 5.2E-01 | | 9.1E+01 | 5.2E-01 |
| Tridiphane | | | | | | | 2.7E+01 | 2.7E+01 |
| Triethylamine | | | | | 3.7E+00 | | | 3.7E+00 |
| Trifluralin | | | 8.7E+00 | 8.7E+00 | | | 6.8E+01 | 6.8E+01 |
| Trimellitic Anhydride (TMAN) | | | | | | | | |
| 1,2,4-Trimethylbenzene | | | | | 3.1E+00 | | 4.6E+02 | 3.1E+00 |
| 1,3,5-Trimethylbenzene | | | | | 3.1E+00 | | 4.6E+02 | 3.1E+00 |
| Trimethyl phosphate | | | 1.8E+00 | 1.8E+00 | | | | |
| 1,3,5-Trinitrobenzene | | | | | | | 2.7E+02 | 2.7E+02 |
| Trinitrophenylmethylnitramine | | | | | | | 9.1E+01 | 9.1E+01 |
| 2,4,6-Trinitrotoluene | | | 2.2E+00 | 2.2E+00 | | | 4.6E+00 | 4.6E+00 |
| Triphenylphosphine oxide | | | | | | | 1.8E+02 | 1.8E+02 |
| Tris(2-chloroethyl) phosphate | | | 4.8E+00 | 4.8E+00 | | | 2.7E+03 | 2.7E+03 |
| Uranium (chemical toxicity only) | | | | | | | 2.7E+01 | 2.7E+01 |
| Vanadium and compounds | | | | | | 4.1E+02 | 8.2E+01 | 6.8E+01 |
| Vernam | | | | | | | 9.1E+00 | 9.1E+00 |
| Vinclozolin | | | | | | | 2.3E+02 | 2.3E+02 |
| Vinyl acetate | | | | | 1.0E+02 | | 9.1E+03 | 1.0E+02 |
| Vinyl bromide | 1.5E-01 | | | 1.5E-01 | 1.6E+00 | | | 1.6E+00 |
| Vinyl chloride (residential)+++ | 2.4E-01 | | 2.3E-02 | 2.1E-02 | 5.2E+01 | | 2.7E+01 | 1.8E+01 |
| Vinyl chloride (industrial)+++ | | | | | | | | |
| Warfarin | | | | | | | 2.7E+00 | 2.7E+00 |
| Xylenes | | | | | 5.2E+01 | 2.8E+03 | 1.8E+03 | 5.0E+01 |
| Zinc | | | | | | 8.7E+05 | 2.7E+03 | 2.7E+03 |
| Zinc phosphide | | | | | | | 2.7E+00 | 2.7E+00 |

**TABLE B-3
VCP REMEDIATION GOALS FOR GROUND WATER**

| CONTAMINANT | RESIDENTIAL GROUND WATER | | | | | | | |
|---------------|--------------------------|----------------------|------------------------|--------------------|------------------------|----------------------|------------------------|--------------------|
| | Cancer Risk = 1E-06 | | | | Chronic HQ = 0.25 | | | |
| | water-inhale (ug/l) | water-derm (ug/l) | water-ingest (ug/l) | combined (ug/l) | water-inhale (ug/l) | water-derm (ug/l) | water-ingest (ug/l) | combined (ug/l) |
| Zineb | | | | | | | 4.6E+02 | 4.6E+02 |
| Notes: | | | | | | | | |
| µg/L | microgram per liter | | | | | | | |
| HQ | hazard quotient | | | | | | | |
| water-inhale | water-inhalation pathway | | | | | | | |
| water-derm | water-dermal pathway | | | | | | | |
| water-ingest | water ingestion pathway | | | | | | | |

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