

1981 514 EMISSION INVENTORY

FOR WVa. APCC

UCC 099137

A PRIORITIZED RANKING OF THE TOP 62 HAZARDOUS CHEMICAL VAPORS  
EPA/GCA

- ✓1. FORMALDEHYDE
2. HYDROGEN SULFIDE
- ✓3. VINYL CHLORIDE
4. HYDROFLUORIC ACID
- ✓5. DIMETHYLAMINE
6. HYDROCYANIC ACID
7. CHLOROMETHANE
8. 1,1-DICHLOROETHYLENE
9. CHLOROACETALDEHYDE
- ✓10. ACRYLONITRILE
11. TETRAETHYL LEAD
12. CARBON DISULFIDE
13. CARBON TETRACHLORIDE
- ✓14. CHLOROFORM
15. TOLUENE DIISOCYANATE
- ✓16. BENZENE
17. 1-CHLORO-2,3-EPOXYPROPANE
18. 1,2 DICHLOROETHANE
- ✓19. FORMIC ACID
- ✓20. ETHYL ACRYLATE
- ✓21. ACETALDEHYDE
22. PYRIDINE
23. METHYLENE CHLORIDE
24. 1,1,2-TRICHLOROETHANE
25. ACETONITRILE
26. TRICHLOROETHYLENE
27. t-1,2-DICHLOROETHYLENE
28. DIETHYL ETHER
29. MALEIC ANHYDRIDE
30. 1,1,2,3-TETRACHLOROETHANE
31. 1,1-DICHLOROETHANE
32. BENZYL CHLORIDE
33. TRICHLOROFLUOROMETHANE
- ✓34. METHYL ALCOHOL
35. TETRACHLOROETHYLENE
- ✓36. METHYLETHYLKETONE
37. ANILINE
38. 1,1,1-TRICHLOROETHANE
- ✓39. ACETONE
- ✓40. 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE

- ✓41. TOLUENE
42. NITROBENZENE
- ✓43. ETHYL ACETATE
- ✓44. ISOBUTYL ALCOHOL
- ✓45. CYCLOHEXANONE
46. CHLOROBENZENE
- ✓47. METHYLISOBUTYLKETONE
- ✓48. N-BUTYLALCOHOL
49. PHTHALIC ANHYDRIDE
50. ETHYL BENZENE
51. CUMENE
52. XYLENES
53. CRESOLS
54. ACRYLAMIDE
55. HEXACHLOROETHANE
56. CRESYLIC ACID
57. 1,2,3-TRICHLOROPROPANE
58. PHENOL
59. ACRYLIC ACID
60. O-DICHLOROBENZENE
61. NAPHTHALENE
62. P-DICHLOROBENZENE

OTHER IMPORTANT GROUPS

C2-C10 ALKANES AND ALKENES  
C6-C10 AROMATICS  
CHLORINATED HYDROCARBONS  
ALDEHYDES  
KETONES  
SULFUR HYDROCARBONS

ATTACHMENT A

CHEMICALS FROM 1981 WVAPCC SURVEY

| A/GCA |                                  | M#/Year |                 |              |
|-------|----------------------------------|---------|-----------------|--------------|
| 39    | Acetone                          | 549     | <del>550</del>  |              |
|       | Methyl Acetate                   |         | 439             |              |
| 34    | Methanol                         |         | 335             |              |
|       | Isopropanol                      |         | 319             | 64% of Total |
|       | Propylene Oxide                  | 259     | 258             |              |
|       | Vinyl Acetate                    |         | 151             | 80% of Total |
|       | Vinyl Methyl Ether               |         | 53.9            |              |
|       | Butyl Chloride                   |         | 46.9            |              |
|       | Ethylene Oxide                   |         | 42.5            |              |
|       | Pentane                          |         | 39.6            |              |
|       | Ethanol                          | 37.6    | 37.3            |              |
| 40    | Fluorocarbon 113                 |         | 34.8            | 90% of Total |
|       | Isopropenyl Acetate              |         | 31.5            |              |
|       | Ethane                           |         | 23.8            |              |
| 21    | Acetaldehyde                     |         | 20.5            |              |
| 10    | Acrylonitrile ✓                  |         | 16.7            |              |
| 36    | Methyl Ethyl Ketone              |         | 16.6            |              |
|       | Ammonia                          | 22.9    | <del>15.0</del> | 95% of Total |
| 43    | Ethyl Acetate                    |         | 11.2            |              |
|       | Dimethylethanolamine             | 8.8     | <del>8.7</del>  |              |
|       | Isopropyl Acetate                |         | 8.2             |              |
|       | Diethyl Ketone                   |         | 7.3             |              |
|       | Isopropyl Ether                  |         | 5.3             |              |
|       | 2-Ethylbutyraldehyde             |         | 5.3             |              |
| 48    | n-Butanol                        |         | 5.3             |              |
|       | 3-Pentyl Formate                 |         | 5.2             |              |
|       | Propionaldehyde                  |         | 5.1             |              |
|       | Mesityl Oxide                    |         | 4.9             |              |
|       | Acetic Acid                      |         | 4.5             |              |
|       | Methyl Capped A-PEG-350 (Y-6044) |         | 3.5             |              |
|       | Dimethylacetal                   |         | 3.4             |              |
|       | 1-Pentene                        |         | 2.7             |              |
|       | n-Propanol                       |         | 2.5             |              |
| 5     | Dimethylamine ✓                  |         | 2.4             |              |
|       | n-Butyl Acetate                  |         | 2.2             |              |
|       | Isobutyl Acetate                 |         | 2.1             |              |
|       | Acetic Anhydride                 |         | 2.0             |              |
|       | 2,4-Pentanedione                 |         | 1.7             |              |
|       | Allyl Alcohol                    |         | 1.7             |              |
|       | Styrene                          |         | 1.5             |              |
|       | Butane                           |         | 1.5             | 99% of Total |
|       | Tetraethylorthosilicate          |         | 1.5             |              |
|       | Methylacetylene                  |         | 1.27            |              |
|       | Gasoline, Unleaded Regular       |         | 1.26            |              |
|       | Residues (DAA/MO)                |         | 1.24            |              |
|       | n-Propyl Acetate                 |         | 1.23            |              |
|       | Diacetone Alcohol                |         | 1.17            |              |
|       | Diisobuty Ketone                 |         | 1.12            |              |

MAY 4 1983

UCC 099139

| EPA/GCA | CHEMICAL                               | M#/Year   |
|---------|----------------------------------------|-----------|
|         | Ethylenediamine                        | 1.00      |
|         | Isobutylene                            | 0.95      |
|         | Butyraldehyde                          | 0.93      |
|         | CELLOSOLVE Solvent                     | 0.91      |
|         | Butyl CELLOSOLVE                       | 0.90      |
|         | CELLOSOLVE Acetate                     | 0.89      |
|         | DOWTHERM A                             | 0.84      |
| 44      | Isobutanol                             | 0.71      |
|         | Propylamine                            | 0.75 0-66 |
|         | Methoxypropylamine (MOPA)              | 0.55 0-64 |
|         | Methyl CELLOSOLVE                      | 0.60      |
|         | Diethylamine                           | 0.59      |
|         | Butyl Acrylate                         | 0.58      |
|         | NIAX Catalyst A-99                     | 0.54      |
| 41      | Toluene                                | 0.51      |
|         | Gasoline, Leaded Regular               | 0.48      |
|         | Diethylethanolamine                    | 0.45      |
|         | Propionic Acid                         | 0.39      |
|         | Ethyl Silicate 40                      | 0.36      |
|         | Butyl Esters, Mixed (UCAR Solvent MBE) | 0.34      |
|         | 2-Ethylbutyric Acid                    | 0.34      |
|         | Isobutyraldehyde                       | 0.32      |
|         | 2-Butyl Formate                        | 0.28      |
|         | Hexaldehyde                            | 0.26      |
|         | C <sub>6</sub> Olefins                 | 0.19      |
|         | 2-Ethylhexyl Acrylate                  | 0.18      |
|         | Butyl CELLOSOLVE Acetate               | 0.15      |
|         | Hexanol                                | 0.15      |
|         | Methylamine                            | 0.14      |
| 3       | Vinyl Chloride ✓                       | 0.14      |
|         | Methylmethacrylate                     | 0.12      |
|         | Amyl Acetate                           | 0.12      |
|         | PM-5882                                | 0.11      |
|         | Ethyl Silicate Condensed               | 0.11      |
|         | Diacetone Alcohol Tails                | 0.11      |
|         | Dimethylaminopropylamine               | 0.082     |
|         | CARBITOL Solvent                       | 0.070     |
|         | Dimethylaminoethoxyethanol             | 0.070     |
|         | 2-Ethylhexanol                         | 0.066     |
|         | Ethylene Glycol                        | 0.065     |
| 47      | Methyl Isobutyl Ketone                 | 0.065     |
| 16      | Benzene ✓                              | 0.061     |
|         | Methyl Amyl Alcohol                    | 0.060     |
|         | Triethylamine                          | 0.060     |
|         | Crotonaldehyde                         | 0.050     |
|         | N-Methylethanolamine                   | 0.050     |
|         | PM-3224                                | 0.050     |
|         | Allyl Chloride                         | 0.042     |

MAY 4 1983

UCC 099140

| EPA/GCA | CHEMICAL                                 | M#/Year      |
|---------|------------------------------------------|--------------|
| 45      | Cyclohexanone                            | 0.040        |
|         | Methyldiethanolamine                     | 0.040        |
|         | NIAX Catalyst C-166                      | 0.040        |
|         | NIAX Polyol 11-34                        | 0.040        |
|         | Diacetone Alcohol Fractions              | 0.030        |
|         | NIAX Catalyst A-1                        | 0.028        |
|         | PROPASOL Solvent P                       | 0.028        |
|         | Allylmethyacrylate (AMA)                 | 0.026        |
|         | Allylmethoxytriglycol (AMTG)             | 0.025        |
|         | Gasoline                                 | 0.025        |
|         | Methyl CELLOSOLVE Acetate                | 0.025        |
|         | Butyl CARBITOL Acetate                   | 0.020        |
|         | NIAX Polyols                             | 0.020        |
|         | PM-3640                                  | 0.020        |
|         | NIAX Catalyst A-30                       | 0.018        |
|         | Mesityl Oxide Fractions                  | *0.015 8-015 |
|         | TERGITOL NP-9                            | 0.015        |
|         | Butyl CARBITOL                           | 0.011        |
|         | NIAX Catalyst A-107                      | 0.011        |
|         | CARBITOL Acetate                         | 0.010        |
| 19      | Formic Acid ✓                            | 0.010        |
|         | Hexylene Glycol                          | 0.010        |
|         | Tetrahydrobenzaldehyde                   | 0.010        |
|         | Trimethylamine                           | 0.008        |
|         | #1 Diesel Fuel                           | 0.007        |
|         | Diethylene Glycol                        | 0.006        |
| -20     | Ethyl Acrylate ✓                         | 0.006        |
|         | #2 Diesel Fuel                           | 0.005        |
|         | Ethyl Silicate ESP-Y                     | 0.005        |
|         | NIAX Catalyst A-6                        | 0.005        |
|         | PM-5454                                  | 0.005        |
|         | Methylpentanaldehyde                     | 0.004        |
|         | NIAX Catalyst A-10                       | 0.004        |
|         | 2-Ethylhexoic Acid                       | 0.003        |
| 1       | Formaldehyde ✓                           | 0.003        |
|         | PROPASOL Solvent B                       | 0.003        |
|         | NIAX Catalyst A-133                      | 0.002        |
|         | NIAX Catalyst C-105                      | 0.002        |
| 14      | Chloroform ✓                             | 0.001        |
|         | NIAX Catalyst A-5                        | 0.001        |
|         | NIAX Catalyst A-127                      | 0.001        |
|         | NIAX Catalyst A-124 C-124*               | 0.001        |
|         | NIAX Catalyst C-152                      | 0.001        |
|         | Epoxy Resin ERL-2258, BAKELITE (Epoxide) | 0.0004       |
|         | Ethylhexyl Tallate                       | 0.0003       |
|         | Triethylene Glycol                       | 0.0003       |
|         | PM-5834                                  | 0.0001       |
|         | Ethyl Chloride                           | -0-          |
|         | Hydrogen Chloride                        | -0-          |
|         | Silicon Tetrachloride                    | -0-          |
|         | TOTAL:                                   | 2,556.126    |
|         |                                          | 2,564.546    |

\*Typo on original

MAY 4 1983

UCC 099141

| <u>CHEMICAL</u>                | <u>M#/Year</u> |
|--------------------------------|----------------|
| Nitrogen Oxides (Fuel Burning) | 3,095          |
| Sulfur Oxides (Fuel Burning) \ | 2,887          |
| Hydrocarbons (Fuel Burning)    | 148            |
| Particulate (Fuel Burning)     | 166            |
| Carbon Monoxide (Fuel Burning) | 121            |
| Particulate (Process)          | 74             |
| Carbon Monoxide (Process)      | 1.5            |

MAY 4 1983

UCC 099142