

US EPA ARCHIVE DOCUMENT

Table RT4. Chemical-specific Risks and Hazards by Receptor Types for Landfills (unitless)
Human Receptors - 1000 meters; Ecological Receptors - 2000 meters

| Chemical Name | CASRN | Protection Group 1 | | | | | | | |
|------------------------------------|-----------|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | Beef/Dairy Farmer | | Gardener | | Fisher | | Resident | |
| | | Risk | HQ | Risk | HQ | Risk | HQ | Risk | HQ |
| Acetonitrile | 75-05-8 | note 2 | = 3E-02,(inh) | note 2 | = 1E-01,(inh) | note 2 | = 1E-01,(inh) | note 2 | = 1E-01,(inh) |
| Acrylonitrile | 107-13-1 | = 3E-06,(ing) | = 5E-02,(ing) | = 1E-06,(ing) | < 1E-01,(inh) | = 9E-07,(ing) | < 1E-01,(inh) | = 9E-07,(ing) | < 1E-01,(inh) |
| Aniline | 62-53-3 | = 3E-06,(ing) | < 1E-01,(inh) | = 1E-06,(ing) | < 1E-01,(inh) | = 1E-06,(ing) | < 1E-01,(inh) | = 1E-06,(ing) | < 1E-01,(inh) |
| Arsenic | 7440-38-2 | = 1E-06,(ing) | = 1E-01,(ing) | = 8E-07,(ing) | < 1E-01,(inh) | = 9E-07,(ing) | < 1E-01,(inh) | = 8E-07,(ing) | < 1E-01,(inh) |
| Barium | 7440-39-3 | note 2 | = 3E-01,(ing) | note 2 | = 7E-02,(ing) | note 2 | = 7E-02,(ing) | note 2 | = 7E-02,(ing) |
| Benzene | 71-43-2 | = 7E-06,(cmb) | note 3 | = 9E-07,(cmb) | note 3 | = 2E-06,(cmb) | note 3 | = 4E-07,(cmb) | note 3 |
| Benzo(a)pyrene | 50-32-8 | < 1E-04,(ing) | note 3 | < 1E-08,(ing) | note 3 | < 1E-08,(ing) | note 3 | < 1E-08,(inh) | note 3 |
| Beryllium | 7440-41-7 | < 1E-08,(inh) | < 1E-01,(inh) | < 1E-08,(inh) | < 1E-01,(inh) | < 1E-08,(inh) | < 1E-01,(inh) | < 1E-08,(inh) | < 1E-01,(inh) |
| Bis-(2-ethylhexyl) phthalate | 117-81-7 | < 1E-06,(ing) | < 1E-01,(ing) | < 1E-08,(inh) | < 1E-01,(inh) | < 1E-08,(ing) | < 1E-01,(inh) | < 1E-08,(inh) | < 1E-01,(inh) |
| Cadmium | 7440-43-9 | < 1E-08,(inh) | = 1E-01,(ing) | < 1E-08,(inh) | < 1E-01,(inh) | = 2E-09,(inh) | = 1E-02,(ing) | < 1E-08,(inh) | < 1E-01,(inh) |
| Carbon disulfide | 75-15-0 | note 2 | = 9E-02,(ing) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) |
| Chlorobenzene | 108-90-7 | note 2 | = 5E-01,(cmb) | note 2 | = 9E-02,(cmb) | note 2 | = 8E-02,(cmb) | note 2 | = 8E-02,(cmb) |
| Chloroform | 67-66-3 | = 2E-05,(cmb) | = 2E+00,(ing) | = 9E-07,(cmb) | = 2E-02,(ing) | = 2E-06,(cmb) | = 3E-02,(ing) | = 9E-07,(cmb) | < 1E-01,(inh) |
| Dibenz[a,h]anthracene | 53-70-3 | < 1E-04,(ing) | note 3 | < 1E-08,(inh) | note 3 | < 1E-08,(ing) | note 3 | < 1E-08,(inh) | note 3 |
| Dichlorophenoxyacetic acid, 2,4- | 94-75-7 | note 2 | = 1E+00,(ing) | note 2 | = 9E-02,(ing) | note 2 | = 2E-01,(ing) | note 2 | = 9E-02,(ing) |
| Divalent Mercury | 7439-97-6 | note 2 | = 1E-01,(ing) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) |
| Ethylene dibromide | 106-93-4 | = 7E-06,(ing) | < 1E-01,(inh) | = 6E-07,(ing) | < 1E-01,(inh) | = 7E-07,(ing) | < 1E-01,(inh) | = 6E-07,(ing) | < 1E-01,(inh) |
| Lead | 7439-92-1 | note 1 | note 1 | note 1 | note 1 | note 1 | note 1 | note 1 | note 1 |
| Methyl ethyl ketone | 78-93-3 | note 2 | = 4E-01,(cmb) | note 2 | = 9E-02,(cmb) | note 2 | = 8E-02,(cmb) | note 2 | = 8E-02,(cmb) |
| Methyl methacrylate | 80-62-6 | note 2 | = 6E-02,(ing) | note 2 | = 9E-02,(ing) | note 2 | = 9E-02,(ing) | note 2 | = 9E-02,(ing) |
| Methylene chloride | 75-09-2 | = 8E-06,(cmb) | = 7E-01,(cmb) | = 2E-06,(cmb) | = 9E-03,(cmb) | = 3E-06,(cmb) | = 2E-03,(cmb) | = 9E-07,(cmb) | < 1E-01,(cmb) |
| Nickel [+2] | 7440-02-0 | < 1E-08,(inh) | = 4E-02,(ing) | = 4E-09,(inh) | = 7E-02,(ing) | = 4E-09,(inh) | = 7E-02,(ing) | = 4E-09,(inh) | = 9E-02,(ing) |
| Nitrobenzene | 98-95-3 | note 2 | = 4E+00,(cmb) | note 2 | = 8E-02,(cmb) | note 2 | = 2E-01,(cmb) | note 2 | = 8E-02,(cmb) |
| Pentachlorophenol | 87-86-5 | = 3E-06,(ing) | < 1E-01,(inh) | = 7E-07,(ing) | < 1E-01,(inh) | = 7E-07,(ing) | < 1E-01,(inh) | = 7E-07,(ing) | < 1E-01,(inh) |
| Phenol | 108-95-2 | note 2 | = 1E-02,(ing) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) |
| Pyridine | 110-86-1 | note 2 | = 2E-01,(ing) | note 2 | = 8E-02,(ing) | note 2 | = 8E-02,(ing) | note 2 | = 8E-02,(ing) |
| Silver | 7440-22-4 | note 2 | < 1E+00,(ing) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) |
| Tetrachlorodibenzo-p-dioxin, 2,3,7 | 1746-01-6 | = 4E-06,(cmb) | < 1E-01,(inh) | = 7E-09,(cmb) | < 1E-01,(inh) | = 7E-09,(cmb) | < 1E-01,(inh) | < 1E-08,(cmb) | < 1E-01,(inh) |

Table RT4. Chemical-specific Risks and Hazards by Receptor Types for Landfills (unitless)
 Human Receptors - 1000 meters; Ecological Receptors - 2000 meters

| Chemical Name | CASRN | Protection Group 1 | | | | | | | |
|-------------------------|-----------|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | Beef/Dairy Farmer | | Gardener | | Fisher | | Resident | |
| | | Risk | HQ | Risk | HQ | Risk | HQ | Risk | HQ |
| Tetrachloroethylene | 127-18-4 | = 6E-05,(cmb) | = 9E-01,(ing) | = 9E-07,(cmb) | < 1E-01,(inh) | = 9E-07,(cmb) | < 1E-01,(inh) | = 4E-09,(cmb) | < 1E-01,(inh) |
| Thallium [+1] | 7446-18-6 | note 2 | = 2E-01,(ing) | note 2 | < 1E-01,(ing) | note 2 | < 1E-01,(ing) | note 2 | < 1E-01,(ing) |
| Thiram | 137-26-8 | note 2 | < 1E+01,(ing) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) |
| Toluene | 108-88-3 | note 2 | = 4E-02,(ing) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) |
| Trichloroethane, 1,1,1- | 71-55-6 | note 2 | = 7E+00,(ing) | note 2 | = 1E-01,(ing) | note 2 | = 3E-01,(ing) | note 2 | < 1E-01,(inh) |
| Trichloroethylene | 79-01-6 | = 1E-05,(ing) | note 3 | = 2E-07,(ing) | note 3 | = 1E-07,(ing) | note 3 | = 2E-09,(inh) | note 3 |
| Vinyl chloride | 75-01-4 | = 2E-05,(cmb) | note 3 | = 1E-06,(cmb) | note 3 | = 2E-06,(cmb) | note 3 | = 5E-07,(cmb) | note 3 |
| Zinc | 7440-66-6 | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) |

note 1: Human impacts were not evaluated due to the lack of human health toxicity values.

note 2: The risk was not calculated for this chemical because the chemical did not have a cancer slope factor.

note 3: The hazard was not calculated for this chemical because it did not have a noncancer reference dose or reference concentration.

NA: Not Applicable

No Curve: For this chemical, inhalation and ingestion pathways are not additive.

Invalid Curve: For this chemical and cohort, the curve could not be used to interpolate a result.

Table RT4. Chemical-specific Risks and Hazards by Receptor Types for Landfills (unitless)
Human Receptors - 1000 meters; Ecological Receptors - 2000 meters

| Chemical Name | CASRN | Protection Group 2 | | | | | | | |
|------------------------------------|-----------|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | Beef/Dairy Farmer | | Gardener | | Fisher | | Resident | |
| | | Risk | HQ | Risk | HQ | Risk | HQ | Risk | HQ |
| Acetonitrile | 75-05-8 | note 2 | < 1E+00,(inh) | note 2 | < 1E+00,(inh) | note 2 | < 1E+00,(inh) | note 2 | < 1E+00,(inh) |
| Acrylonitrile | 107-13-1 | = 4E-06,(ing) | = 8E-02,(ing) | < 1E-06,(ing) | < 1E-01,(inh) | = 1E-06,(ing) | < 1E-01,(inh) | = 1E-06,(ing) | < 1E-01,(inh) |
| Aniline | 62-53-3 | = 5E-06,(ing) | < 1E-01,(inh) | = 1E-06,(ing) | < 1E-01,(inh) | = 1E-06,(ing) | < 1E-01,(inh) | = 1E-06,(ing) | < 1E-01,(inh) |
| Arsenic | 7440-38-2 | = 6E-06,(ing) | = 3E-01,(ing) | = 8E-07,(ing) | < 1E-01,(inh) | = 9E-07,(ing) | < 1E-01,(inh) | = 8E-07,(ing) | < 1E-01,(inh) |
| Barium | 7440-39-3 | note 2 | = 5E-01,(ing) | note 2 | = 1E-01,(ing) | note 2 | = 1E-01,(ing) | note 2 | = 9E-02,(ing) |
| Benzene | 71-43-2 | = 9E-06,(cmb) | note 3 | = 1E-06,(cmb) | note 3 | = 3E-06,(cmb) | note 3 | = 5E-07,(cmb) | note 3 |
| Benzo(a)pyrene | 50-32-8 | < 1E-04,(ing) | note 3 | < 1E-08,(ing) | note 3 | < 1E-08,(ing) | note 3 | < 1E-08,(inh) | note 3 |
| Beryllium | 7440-41-7 | < 1E-08,(inh) | < 1E-01,(inh) | < 1E-08,(inh) | < 1E-01,(inh) | < 1E-08,(inh) | < 1E-01,(inh) | < 1E-08,(inh) | < 1E-01,(inh) |
| Bis-(2-ethylhexyl) phthalate | 117-81-7 | < 1E-06,(ing) | < 1E-01,(ing) | < 1E-08,(inh) | < 1E-01,(inh) | < 1E-08,(inh) | < 1E-01,(inh) | < 1E-08,(inh) | < 1E-01,(inh) |
| Cadmium | 7440-43-9 | < 1E-08,(inh) | = 1E-01,(ing) | < 1E-08,(inh) | < 1E-01,(inh) | < 1E-08,(inh) | < 1E-01,(inh) | < 1E-08,(inh) | < 1E-01,(inh) |
| Carbon disulfide | 75-15-0 | note 2 | = 1E-01,(ing) | note 2 | = 6E-03,(ing) | note 2 | = 3E-03,(ing) | note 2 | = 6E-03,(ing) |
| Chlorobenzene | 108-90-7 | note 2 | < 1E+00,(cmb) | note 2 | < 1E+00,(cmb) | note 2 | < 1E+00,(cmb) | note 2 | < 1E+00,(cmb) |
| Chloroform | 67-66-3 | = 2E-05,(cmb) | = 2E+00,(ing) | = 9E-07,(cmb) | = 2E-02,(ing) | = 2E-06,(cmb) | = 3E-02,(ing) | = 9E-07,(cmb) | < 1E-01,(inh) |
| Dibenz[a,h]anthracene | 53-70-3 | < 1E-04,(ing) | note 3 | < 1E-08,(inh) | note 3 | < 1E-08,(inh) | note 3 | < 1E-08,(inh) | note 3 |
| Dichlorophenoxyacetic acid, 2,4- | 94-75-7 | note 2 | = 4E+00,(ing) | note 2 | = 8E-01,(ing) | note 2 | < 1E+00,(ing) | note 2 | = 8E-01,(ing) |
| Divalent Mercury | 7439-97-6 | note 2 | = 1E-01,(ing) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) |
| Ethylene dibromide | 106-93-4 | = 9E-06,(ing) | < 1E-01,(inh) | = 9E-07,(ing) | < 1E-01,(inh) | = 9E-07,(ing) | < 1E-01,(inh) | = 9E-07,(ing) | < 1E-01,(inh) |
| Lead | 7439-92-1 | note 1 | note 1 | note 1 | note 1 | note 1 | note 1 | note 1 | note 1 |
| Methyl ethyl ketone | 78-93-3 | note 2 | = 9E+00,(cmb) | note 2 | = 9E-01,(cmb) | note 2 | = 9E-01,(cmb) | note 2 | = 9E-01,(cmb) |
| Methyl methacrylate | 80-62-6 | note 2 | < 1E-01,(ing) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) |
| Methylene chloride | 75-09-2 | = 8E-06,(cmb) | = 7E-01,(cmb) | = 2E-06,(cmb) | = 8E-03,(cmb) | = 3E-06,(cmb) | = 2E-03,(cmb) | = 9E-07,(cmb) | < 1E-01,(cmb) |
| Nickel [+2] | 7440-02-0 | < 1E-08,(inh) | = 5E-02,(ing) | = 3E-09,(inh) | = 6E-02,(ing) | = 3E-09,(inh) | = 6E-02,(ing) | = 3E-09,(inh) | = 6E-02,(ing) |
| Nitrobenzene | 98-95-3 | note 2 | < 1E+01,(cmb) | note 2 | < 1E+00,(cmb) | note 2 | < 1E+00,(cmb) | note 2 | < 1E+00,(cmb) |
| Pentachlorophenol | 87-86-5 | = 5E-06,(ing) | = 6E-03,(ing) | = 8E-07,(ing) | < 1E-01,(inh) | = 9E-07,(ing) | < 1E-01,(inh) | = 8E-07,(ing) | < 1E-01,(inh) |
| Phenol | 108-95-2 | note 2 | = 2E-02,(ing) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) |
| Pyridine | 110-86-1 | note 2 | = 2E+00,(ing) | note 2 | = 9E-01,(ing) | note 2 | = 9E-01,(ing) | note 2 | = 9E-01,(ing) |
| Silver | 7440-22-4 | note 2 | < 1E+00,(ing) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) |
| Tetrachlorodibenzo-p-dioxin, 2,3,7 | 1746-01-6 | = 4E-06,(cmb) | < 1E-01,(inh) | = 9E-09,(cmb) | < 1E-01,(inh) | = 9E-09,(cmb) | < 1E-01,(inh) | = 1E-09,(cmb) | < 1E-01,(inh) |

Table RT4. Chemical-specific Risks and Hazards by Receptor Types for Landfills (unitless)
 Human Receptors - 1000 meters; Ecological Receptors - 2000 meters

| Chemical Name | CASRN | Protection Group 2 | | | | | | | |
|-------------------------|-----------|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | Beef/Dairy Farmer | | Gardener | | Fisher | | Resident | |
| | | Risk | HQ | Risk | HQ | Risk | HQ | Risk | HQ |
| Tetrachloroethylene | 127-18-4 | = 7E-05,(cmb) | = 1E+00,(ing) | = 1E-06,(cmb) | < 1E-01,(inh) | = 1E-06,(cmb) | < 1E-01,(inh) | = 3E-09,(cmb) | < 1E-01,(inh) |
| Thallium [+1] | 7446-18-6 | note 2 | = 1E+00,(ing) | note 2 | = 1E+00,(ing) | note 2 | = 1E+00,(ing) | note 2 | = 1E+00,(ing) |
| Thiram | 137-26-8 | note 2 | < 1E+01,(ing) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) |
| Toluene | 108-88-3 | note 2 | < 1E-01,(ing) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) |
| Trichloroethane, 1,1,1- | 71-55-6 | note 2 | < 1E+01,(ing) | note 2 | < 1E+00,(ing) | note 2 | < 1E+00,(ing) | note 2 | < 0E+00,(inh) |
| Trichloroethylene | 79-01-6 | = 1E-05,(ing) | note 3 | = 2E-07,(ing) | note 3 | = 1E-07,(ing) | note 3 | = 2E-09,(inh) | note 3 |
| Vinyl chloride | 75-01-4 | = 2E-05,(cmb) | note 3 | = 1E-06,(cmb) | note 3 | = 2E-06,(cmb) | note 3 | = 5E-07,(cmb) | note 3 |
| Zinc | 7440-66-6 | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) |

- note 1: Human impacts were not evaluated due to the lack of human health toxicity values.
- note 2: The risk was not calculated for this chemical because the chemical did not have a cancer slope factor.
- note 3: The hazard was not calculated for this chemical because it did not have a noncancer reference dose or reference concentration.
- NA: Not Applicable
- No Curve: For this chemical, inhalation and ingestion pathways are not additive.
- Invalid Curve: For this chemical and cohort, the curve could not be used to interpolate a result.

Table RT4. Chemical-specific Risks and Hazards by Receptor Types for Landfills (unitless)
 Human Receptors - 1000 meters; Ecological Receptors - 2000 meters

| Chemical Name | CASRN | Protection Group 3 | | | | | | | |
|------------------------------------|-----------|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | Beef/Dairy Farmer | | Gardener | | Fisher | | Resident | |
| | | Risk | HQ | Risk | HQ | Risk | HQ | Risk | HQ |
| Acetonitrile | 75-05-8 | note 2 | < 1E+00,(inh) | note 2 | < 1E+00,(inh) | note 2 | < 1E+00,(inh) | note 2 | < 1E+00,(inh) |
| Acrylonitrile | 107-13-1 | = 2E-05,(ing) | = 2E+00,(ing) | = 1E-05,(ing) | = 2E-01,(ing) | = 1E-05,(ing) | = 2E-01,(ing) | = 1E-05,(ing) | = 2E-01,(ing) |
| Aniline | 62-53-3 | = 7E-05,(ing) | = 3E-02,(inh) | = 1E-05,(ing) | = 1E-01,(inh) | = 1E-05,(ing) | = 1E-01,(inh) | = 1E-05,(ing) | = 1E-01,(inh) |
| Arsenic | 7440-38-2 | = 1E-05,(ing) | = 9E-01,(ing) | < 5E-06,(ing) | = 4E-02,(ing) | = 5E-06,(ing) | = 3E-02,(ing) | = 5E-06,(ing) | = 3E-02,(ing) |
| Barium | 7440-39-3 | note 2 | = 5E-01,(ing) | note 2 | = 1E-01,(ing) | note 2 | = 1E-01,(ing) | note 2 | = 9E-02,(ing) |
| Benzene | 71-43-2 | < 1E-04,(cmb) | note 3 | < 1E-05,(cmb) | note 3 | < 1E-05,(cmb) | note 3 | < 5E-06,(cmb) | note 3 |
| Benzo(a)pyrene | 50-32-8 | < 1E-04,(ing) | note 3 | < 1E-08,(ing) | note 3 | < 1E-08,(ing) | note 3 | < 1E-08,(inh) | note 3 |
| Beryllium | 7440-41-7 | < 1E-08,(inh) | < 1E-01,(inh) | < 1E-08,(inh) | < 1E-01,(inh) | < 1E-08,(inh) | < 1E-01,(inh) | < 1E-08,(inh) | < 1E-01,(inh) |
| Bis-(2-ethylhexyl) phthalate | 117-81-7 | < 1E-06,(ing) | < 1E-01,(ing) | < 1E-08,(inh) | < 1E-01,(inh) | < 1E-08,(inh) | < 1E-01,(inh) | < 1E-08,(inh) | < 1E-01,(inh) |
| Cadmium | 7440-43-9 | < 1E-08,(inh) | = 1E-01,(ing) | < 1E-08,(inh) | < 1E-01,(inh) | < 1E-08,(inh) | < 1E-01,(inh) | < 1E-08,(inh) | < 1E-01,(inh) |
| Carbon disulfide | 75-15-0 | note 2 | = 1E-01,(ing) | note 2 | = 6E-03,(ing) | note 2 | = 3E-03,(ing) | note 2 | = 6E-03,(ing) |
| Chlorobenzene | 108-90-7 | note 2 | < 1E+00,(cmb) | note 2 | < 1E+00,(cmb) | note 2 | < 1E+00,(cmb) | note 2 | < 1E+00,(cmb) |
| Chloroform | 67-66-3 | = 8E-05,(cmb) | = 8E+00,(ing) | = 7E-06,(cmb) | = 2E-01,(ing) | = 7E-06,(cmb) | = 4E-01,(ing) | = 7E-06,(cmb) | < 1E-01,(inh) |
| Dibenz[a,h]anthracene | 53-70-3 | < 1E-04,(ing) | note 3 | < 1E-08,(inh) | note 3 | < 1E-08,(inh) | note 3 | < 1E-08,(inh) | note 3 |
| Dichlorophenoxyacetic acid, 2,4- | 94-75-7 | note 2 | = 4E+00,(ing) | note 2 | = 8E-01,(ing) | note 2 | < 1E+00,(ing) | note 2 | = 8E-01,(ing) |
| Divalent Mercury | 7439-97-6 | note 2 | = 1E-01,(ing) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) |
| Ethylene dibromide | 106-93-4 | = 2E-05,(ing) | < 1E-01,(inh) | = 8E-06,(ing) | < 1E-01,(inh) | = 1E-05,(ing) | < 1E-01,(inh) | = 8E-06,(ing) | < 1E-01,(inh) |
| Lead | 7439-92-1 | note 1 | note 1 | note 1 | note 1 | note 1 | note 1 | note 1 | note 1 |
| Methyl ethyl ketone | 78-93-3 | note 2 | = 9E+00,(cmb) | note 2 | = 9E-01,(cmb) | note 2 | = 9E-01,(cmb) | note 2 | = 9E-01,(cmb) |
| Methyl methacrylate | 80-62-6 | note 2 | < 1E-01,(ing) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) |
| Methylene chloride | 75-09-2 | = 7E-05,(cmb) | = 7E+00,(cmb) | = 1E-05,(cmb) | = 3E-01,(cmb) | = 1E-05,(cmb) | = 3E-01,(cmb) | = 9E-06,(cmb) | = 3E-01,(cmb) |
| Nickel [+2] | 7440-02-0 | < 1E-08,(inh) | = 5E-02,(ing) | = 3E-09,(inh) | = 6E-02,(ing) | = 3E-09,(inh) | = 6E-02,(ing) | = 3E-09,(inh) | = 6E-02,(ing) |
| Nitrobenzene | 98-95-3 | note 2 | < 1E+01,(cmb) | note 2 | < 1E+00,(cmb) | note 2 | < 1E+00,(cmb) | note 2 | < 1E+00,(cmb) |
| Pentachlorophenol | 87-86-5 | = 9E-06,(ing) | = 7E-02,(ing) | = 8E-06,(ing) | < 1E-01,(inh) | = 8E-06,(ing) | < 1E-01,(inh) | = 8E-06,(ing) | < 1E-01,(inh) |
| Phenol | 108-95-2 | note 2 | = 2E-02,(ing) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) |
| Pyridine | 110-86-1 | note 2 | = 2E+00,(ing) | note 2 | = 9E-01,(ing) | note 2 | = 9E-01,(ing) | note 2 | = 9E-01,(ing) |
| Silver | 7440-22-4 | note 2 | < 1E+00,(ing) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) |
| Tetrachlorodibenzo-p-dioxin, 2,3,7 | 1746-01-6 | = 4E-06,(cmb) | < 1E-01,(inh) | = 9E-09,(cmb) | < 1E-01,(inh) | = 9E-09,(cmb) | < 1E-01,(inh) | = 1E-09,(cmb) | < 1E-01,(inh) |

Table RT4. Chemical-specific Risks and Hazards by Receptor Types for Landfills (unitless)
Human Receptors - 1000 meters; Ecological Receptors - 2000 meters

| | | Protection Group 3 | | | | | | | |
|-------------------------|-----------|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | Beef/Dairy Farmer | | Gardener | | Fisher | | Resident | |
| Chemical Name | CASRN | Risk | HQ | Risk | HQ | Risk | HQ | Risk | HQ |
| Tetrachloroethylene | 127-18-4 | < 1E-04,(cmb) | < 1E+01,(ing) | < 1E-05,(cmb) | < 1E+00,(ing) | < 1E-05,(cmb) | < 1E+00,(ing) | < 1E-08,(cmb) | < 1E-01,(inh) |
| Thallium [+1] | 7446-18-6 | note 2 | = 1E+00,(ing) | note 2 | = 1E+00,(ing) | note 2 | = 1E+00,(ing) | note 2 | = 1E+00,(ing) |
| Thiram | 137-26-8 | note 2 | < 1E+01,(ing) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) |
| Toluene | 108-88-3 | note 2 | < 1E-01,(ing) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) |
| Trichloroethane, 1,1,1- | 71-55-6 | note 2 | < 1E+01,(ing) | note 2 | < 1E+00,(ing) | note 2 | < 1E+00,(ing) | note 2 | < 1E-01,(inh) |
| Trichloroethylene | 79-01-6 | = 1E-05,(ing) | note 3 | = 2E-07,(ing) | note 3 | = 1E-07,(ing) | note 3 | = 2E-09,(inh) | note 3 |
| Vinyl chloride | 75-01-4 | = 5E-05,(cmb) | note 3 | = 1E-05,(cmb) | note 3 | = 1E-05,(cmb) | note 3 | = 7E-06,(cmb) | note 3 |
| Zinc | 7440-66-6 | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) |

note 1: Human impacts were not evaluated due to the lack of human health toxicity values.

note 2: The risk was not calculated for this chemical because the chemical did not have a cancer slope factor.

note 3: The hazard was not calculated for this chemical because it did not have a noncancer reference dose or reference concentration.

NA: Not Applicable

No Curve: For this chemical, inhalation and ingestion pathways are not additive.

Invalid Curve: For this chemical and cohort, the curve could not be used to interpolate a result.

Table RT4. Chemical-specific Risks and Hazards by Receptor Types for Landfills (unitless)
Human Receptors - 1000 meters; Ecological Receptors - 2000 meters

| | | Protection Group 4 | | | | | | | |
|------------------------------------|-----------|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | Beef/Dairy Farmer | | Gardener | | Fisher | | Resident | |
| Chemical Name | CASRN | Risk | HQ | Risk | HQ | Risk | HQ | Risk | HQ |
| Acetonitrile | 75-05-8 | note 2 | < 1E+00,(inh) | note 2 | < 1E+00,(inh) | note 2 | < 1E+00,(inh) | note 2 | < 1E+00,(inh) |
| Acrylonitrile | 107-13-1 | = 6E-05,(ing) | = 6E+00,(ing) | = 2E-05,(ing) | = 3E-01,(ing) | = 9E-06,(ing) | = 3E-01,(ing) | = 9E-06,(ing) | = 3E-01,(ing) |
| Aniline | 62-53-3 | < 1E-04,(ing) | < 1E-01,(inh) | < 1E-05,(ing) | < 1E-01,(inh) | < 1E-05,(ing) | < 1E-01,(inh) | < 1E-05,(ing) | < 1E-01,(inh) |
| Arsenic | 7440-38-2 | = 8E-05,(ing) | = 8E+00,(ing) | = 1E-05,(ing) | = 8E-01,(ing) | = 1E-05,(ing) | = 6E-01,(ing) | = 1E-05,(ing) | = 6E-01,(ing) |
| Barium | 7440-39-3 | note 2 | = 6E+00,(ing) | note 2 | = 9E-01,(ing) | note 2 | = 9E-01,(ing) | note 2 | = 9E-01,(ing) |
| Benzene | 71-43-2 | < 1E-04,(cmb) | note 3 | < 5E-06,(cmb) | note 3 | < 1E-05,(cmb) | note 3 | < 1E-06,(cmb) | note 3 |
| Benzo(a)pyrene | 50-32-8 | < 1E-04,(ing) | note 3 | < 1E-08,(ing) | note 3 | < 1E-08,(ing) | note 3 | < 1E-08,(inh) | note 3 |
| Beryllium | 7440-41-7 | < 1E-08,(inh) | < 1E-01,(inh) | < 1E-08,(inh) | < 1E-01,(inh) | < 1E-08,(inh) | < 1E-01,(inh) | < 1E-08,(inh) | < 1E-01,(inh) |
| Bis-(2-ethylhexyl) phthalate | 117-81-7 | < 1E-06,(ing) | < 1E-01,(ing) | < 1E-08,(inh) | < 1E-01,(inh) | < 1E-08,(inh) | < 1E-01,(inh) | < 1E-08,(inh) | < 1E-01,(inh) |
| Cadmium | 7440-43-9 | < 1E-08,(inh) | < 1E+01,(ing) | < 1E-08,(inh) | < 1E-01,(ing) | < 1E-08,(inh) | < 1E-01,(ing) | < 1E-08,(inh) | < 1E+00,(ing) |
| Carbon disulfide | 75-15-0 | note 2 | = 3E+00,(ing) | note 2 | = 2E-02,(ing) | note 2 | = 1E-02,(ing) | note 2 | = 9E-03,(ing) |
| Chlorobenzene | 108-90-7 | note 2 | < 1E+00,(cmb) | note 2 | < 1E-01,(cmb) | note 2 | < 1E-01,(cmb) | note 2 | < 1E-01,(cmb) |
| Chloroform | 67-66-3 | < 1E-04,(cmb) | < 1E+01,(ing) | < 1E-05,(cmb) | < 1E+00,(ing) | < 1E-05,(cmb) | < 1E+00,(ing) | < 1E-05,(cmb) | < 1E-01,(inh) |
| Dibenz[a,h]anthracene | 53-70-3 | < 1E-04,(ing) | note 3 | < 1E-08,(inh) | note 3 | < 1E-08,(inh) | note 3 | < 1E-08,(inh) | note 3 |
| Dichlorophenoxyacetic acid, 2,4- | 94-75-7 | note 2 | = 6E+00,(ing) | note 2 | = 9E-01,(ing) | note 2 | = 8E-01,(ing) | note 2 | = 9E-01,(ing) |
| Divalent Mercury | 7439-97-6 | note 2 | < 1E+00,(ing) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) |
| Ethylene dibromide | 106-93-4 | = 5E-05,(ing) | < 1E-01,(inh) | = 9E-06,(ing) | < 1E-01,(inh) | = 9E-06,(ing) | < 1E-01,(inh) | = 8E-06,(ing) | < 1E-01,(inh) |
| Lead | 7439-92-1 | note 1 | note 1 | note 1 | note 1 | note 1 | note 1 | note 1 | note 1 |
| Methyl ethyl ketone | 78-93-3 | note 2 | < 1E+01,(cmb) | note 2 | < 1E+00,(cmb) | note 2 | < 1E+00,(cmb) | note 2 | < 1E+00,(cmb) |
| Methyl methacrylate | 80-62-6 | note 2 | < 1E-01,(ing) | note 2 | < 1E-01,(ing) | note 2 | < 1E-01,(ing) | note 2 | < 1E-01,(ing) |
| Methylene chloride | 75-09-2 | = 8E-05,(cmb) | = 8E+00,(cmb) | = 9E-06,(cmb) | = 3E-01,(cmb) | = 1E-05,(cmb) | = 4E-01,(cmb) | = 1E-05,(cmb) | = 2E-01,(cmb) |
| Nickel [+2] | 7440-02-0 | < 1E-08,(inh) | < 1E+00,(ing) | < 1E-08,(inh) | < 1E+00,(ing) | < 1E-08,(inh) | < 1E+00,(ing) | < 1E-08,(inh) | < 1E+00,(ing) |
| Nitrobenzene | 98-95-3 | note 2 | < 1E+01,(cmb) | note 2 | < 1E-01,(cmb) | note 2 | < 1E+00,(cmb) | note 2 | < 1E-01,(cmb) |
| Pentachlorophenol | 87-86-5 | = 6E-05,(ing) | = 6E+00,(ing) | = 1E-05,(ing) | = 4E-02,(ing) | < 1E-05,(ing) | = 4E-02,(ing) | = 1E-05,(ing) | = 5E-02,(ing) |
| Phenol | 108-95-2 | note 2 | < 1E-01,(ing) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) |
| Pyridine | 110-86-1 | note 2 | = 6E+00,(ing) | note 2 | = 7E-01,(ing) | note 2 | = 9E-01,(ing) | note 2 | = 8E-01,(ing) |
| Silver | 7440-22-4 | note 2 | < 1E+00,(ing) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) |
| Tetrachlorodibenzo-p-dioxin, 2,3,7 | 1746-01-6 | < 1E-04,(cmb) | < 1E-01,(inh) | < 5E-07,(cmb) | < 1E-01,(inh) | < 1E-06,(cmb) | < 1E-01,(inh) | < 1E-08,(cmb) | < 1E-01,(inh) |

Table RT4. Chemical-specific Risks and Hazards by Receptor Types for Landfills (unitless)
Human Receptors - 1000 meters; Ecological Receptors - 2000 meters

| Chemical Name | CASRN | Protection Group 4 | | | | | | | |
|-------------------------|-----------|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | Beef/Dairy Farmer | | Gardener | | Fisher | | Resident | |
| | | Risk | HQ | Risk | HQ | Risk | HQ | Risk | HQ |
| Tetrachloroethylene | 127-18-4 | < 1E-04,(cmb) | < 1E+01,(ing) | < 1E-05,(cmb) | < 1E-01,(ing) | < 1E-05,(cmb) | < 1E-01,(ing) | < 1E-08,(cmb) | < 1E-01,(inh) |
| Thallium [+1] | 7446-18-6 | note 2 | = 2E+00,(ing) | note 2 | = 8E-01,(ing) | note 2 | = 9E-01,(ing) | note 2 | = 1E+00,(ing) |
| Thiram | 137-26-8 | note 2 | < 1E+01,(ing) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) |
| Toluene | 108-88-3 | note 2 | < 1E-01,(ing) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) |
| Trichloroethane, 1,1,1- | 71-55-6 | note 2 | < 1E+01,(ing) | note 2 | < 1E-01,(ing) | note 2 | < 1E+00,(ing) | note 2 | < 1E-01,(inh) |
| Trichloroethylene | 79-01-6 | = 8E-05,(ing) | note 3 | = 1E-06,(ing) | note 3 | = 4E-06,(ing) | note 3 | = 9E-09,(inh) | note 3 |
| Vinyl chloride | 75-01-4 | = 6E-05,(cmb) | note 3 | = 2E-05,(cmb) | note 3 | = 2E-05,(cmb) | note 3 | = 7E-06,(cmb) | note 3 |
| Zinc | 7440-66-6 | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) | note 2 | < 1E-01,(inh) |

- note 1: Human impacts were not evaluated due to the lack of human health toxicity values.
- note 2: The risk was not calculated for this chemical because the chemical did not have a cancer slope factor.
- note 3: The hazard was not calculated for this chemical because it did not have a noncancer reference dose or reference concentration.
- NA: Not Applicable
- No Curve: For this chemical, inhalation and ingestion pathways are not additive.
- Invalid Curve: For this chemical and cohort, the curve could not be used to interpolate a result.