

# Standard Volume-to-Weight Conversion Factors

Paper			
Product	Volume	Weight (lbs)	Source
Books, hardback, loose	1 cubic yard	529.29	Tellus
Books, paperback, loose	1 cubic yard	427.5	Tellus
Egg flats	one dozen	0.12	U.S. EPA
Egg flats	12"x12"	0.5	U.S. EPA
Paper sacks	25# size	0.5	U.S. EPA
Paper sacks	50# dry goods	1	U.S. EPA
Calendars/books	1 cubic foot	50	FEECO
Catalogs	100 pages ledger	1	U.S. EPA
Computer printout, loose	1 cubic yard	655	U.S. EPA
Mixed paper, loose (construction, fax, manila, some chipboard)	1 cubic yard	363.5	U.S. EPA
Mixed paper, compacted (construction, fax, manila, some chipboard)	1 cubic yard	755	U.S. EPA
Office paper (white, color, CPO, junk mail)	13 gallon	10.01	U.S. EPA
Office paper (white, color, CPO, junk mail)	33 gallon	25.41	U.S. EPA
Office paper (white, color, CPO, junk mail)	55 gallon	42.35	U.S. EPA
Shredded paper	33 gallons	8	U.S. EPA
White ledger paper	12" stack	12	U.S. EPA
White ledger #20, 8.5" x 11"	1 ream (500 sheets)	5	U.S. EPA
White ledger #20, 8.5" x 14"	1 ream (500 sheets)	6.4	U.S. EPA
White ledger w/o CPO, loose	1 cubic yard	363.51	Tellus
White ledger, uncompacted stacked	1 cubic yard	400	U.S. EPA
White ledger, compacted stacked	1 cubic yard	800	U.S. EPA
High grade/office paper	40" x 48" x 40"	650	MN STATE
Colored message pads	1 carton (144 pads)	22	U.S. EPA
Padded envelope	9" x 12"	0.88	U.S. EPA
Magazines, 8.5" x 11"	10 units	3	U.S. EPA
Magazines, stacked	1 cubic yard	1,215	MN STATE
Magazines, loose	1 cubic yard	950	MN STATE
Manila envelope	1 cubic foot	37	FEECO
Newspapers	12" stack	35	U.S. EPA
Newspapers	1 cubic foot	38	FEECO
Newspapers, loose	1 cubic yard	400	U.S. EPA
Newspapers, stacked	1 cubic yard	875	U.S. EPA
Phone book	Ventura	4	U.S. EPA
Phone books	12" stack	25	MN STATE
Paper pulp, stock	1 cubic foot	60–62.00	FEECO
Tab cards, uncompacted	1 cubic yard	605	U.S. EPA
Tab cards, compacted	1 cubic yard	1,275.00	U.S. EPA
Yellow legal pads	1 case (72 pads)	38	U.S. EPA

## Cardboard

Product	Volume	Weight (lbs)	Source
OCC, beverage case	4 six-packs, full case	0.99	U.S. EPA corr.
OCC, box, large	48" x 48" x 60"	4	U.S. EPA
OCC, box, medium	24" x 24" x 30"	2.2	U.S. EPA
OCC, box, small	12" x 12" x 15"	1.1	U.S. EPA
OCC, flattened boxes, loose	1 cubic yard	50.08	Tellus
OCC, stacked	1 cubic yard	50	U.S. EPA
OCC, whole boxes	1 cubic yard	16.64	Tellus
OCC, uncompacted	1 cubic yard	100	U.S. EPA
OCC, compacted	1 cubic yard	400	U.S. EPA
OCC, baled	1 cubic yard	1,100	MN STATE
OCC, baled	30" x 60" x 48"	900	MN STATE
OCC, flattened boxes, loose	40 cubic yard roll-off	2000	MN STATE

Plastic			
Product	Volume	Weight (lbs)	Source
Film plastic/mixed, loose	1 cubic yard	22.55	Tellus
HDPE film plastics, semi-compacted	1 cubic yard	75.96	Tellus
LDPE film plastics, semi-compacted	1 cubic yard	72.32	Tellus
HDPE juice, 8 oz.	8 oz.	0.1	U.S. EPA
1 gallon HDPE jug	1 gallon	0.33	U.S. EPA
1 gallon HDPE beverage container	milk/juice	0.19–0.25	U.S. EPA
HDPE (dairy only), whole, loose	1 cubic yard	25	MN STATE
HDPE (dairy only), granulated	1 cubic yard	620	MN STATE
HDPE (dairy only), whole, baled	30" x 48" x 60"	650	MN STATE
HDPE (mixed), baled	30" x 48" x 60"	750	MN STATE
HDPE (mixed), granulated	gaylord	900	MN STATE
HDPE (mixed), granulated	semi-trailer load	42,000	MN STATE
HDPE (whole), uncompacted	1 cubic yard	24	MN STATE
HDPE (whole), compacted	1 cubic yard	270	MN STATE
1 liter PETE beverage bottle w/o cap	1 liter	0.09	U.S. EPA corr.
PETE water bottle	50 oz. (over 1.5 liters)	0.12	U.S. EPA
PETE, 2 liter	1 bottle	0.13	U.S. EPA
PET soda bottles, whole, loose	1 cubic yard	35	MN STATE
PET soda bottles, whole, loose	1 gaylord	45	MN STATE
PET soda bottles, whole, baled	30" x 48" x 60"	600	MN STATE
PET soda bottles, whole, granulated	1 gaylord	725	MN STATE
PET soda bottles, whole, granulated	1 semi-trailer load	3,000	MN STATE
Mixed PET & dairy, whole, loose	1 cubic yard	30	MN STATE
Mixed PET, dairy & other rigid, whole, loose	1 cubic yard	40	MN STATE
Mixed rigid, no film or dairy, whole, loose	1 cubic yard	50	MN STATE
Mixed rigid, no film, granulated	gaylord	750	MN STATE
Mixed rigid & film, densified by mixed plastic mold technology	1 cubic yard	60	MN STATE
Mixed PET and HDPE, whole, loose	1 cubic yard	50	MN STATE
1 gallon container	1 gallon	0.42	U.S. EPA
1/2 gallon plastic beverage container	1/2 gallon	0.09	U.S. EPA
Beverage container	12 oz.	0.05	U.S. EPA
Bubble wrap	33 gallons	3	U.S. EPA
Bucket	25 gallons	1.1	U.S. EPA
Bucket w/metal handle	5 gallons	1.9	U.S. EPA
Cake decorator's boxes	each	0.63	U.S. EPA
Grocery bag	100 bags	0.77	U.S. EPA corr.
Film plastics, baled	30" x 42" x 48"	1,100	MN STATE
Film plastics, baled	semi-trailer load	44,000	MN STATE
Film plastics, tightly packed by hand	12" x 12" x 12"	3	MN STATE
Film plastics, loose and uncompacted	1 cubic yard	85	MN STATE
HDPE 10–12 fluid oz.		0.05	U.S. EPA
HDPE beverage case		1.2	U.S. EPA
HDPE bread case		1.5	U.S. EPA
HDPE gallon containers (not beverage)	1 gallon	0.06	U.S. EPA

## Plastic (cont.)

Product	Volume	Weight (lbs)	Source
HDPE (auto) oil container	1 quart size	0.2	U.S. EPA
Pot	1 qt size	0.25	U.S. EPA
Mixed HDPE & PET	1 cubic yard	32	U.S. EPA
Pallet, 48" x 48"		40	U.S. EPA
Sheeting	square yard	1	U.S. EPA
Whole, uncompacted PET	1 cubic yard	30-40	U.S. EPA
Polyethylene, resin pellets	1 cubic foot	30-35	FEECO
Polystyrene beads	1 cubic foot	40	FEECO
Polystyrene, packaging	33 gallon	1.5	U.S. EPA
Styrofoam kernels	1 cubic yard	6.27	Tellus
Polystyrene, blown formed foam	1 cubic yard	9.62	Tellus
Polystyrene, rigid, whole	1 cubic yard	21.76	Tellus
PVC, loose	1 cubic yard	341.12	Tellus

## Glass

Product	Volume	Weight (lbs)	Source
Glass, broken	1 cubic foot	80-100	FEECO
Glass, broken	1 cubic yard	2,160.00	FEECO
Glass, crushed	1 cubic foot	40-50.0	FEECO
Glass, plate	1 cubic foot	172	FEECO
Window	1 cubic foot	157	FEECO
1 gallon jug	each	2.10-2.80	U.S. EPA
Beer bottle	each	0.53	U.S. EPA
Beverage container—8 oz	1 bottle	0.5	U.S. EPA
Beverage container—8 oz	1 case = 24 bottles	12	U.S. EPA
Beverage container—12 oz	1 case = 24 bottles	22	U.S. EPA
Wine bottle	each	1.08	U.S. EPA
Bottles, whole	1 cubic yard	1,000	MN STATE
Bottles, whole	1 whole grocery bag	15	MN STATE
Glass, semi-crushed	1 cubic yard	1,400	MN STATE
Glass, crushed (mechanically)	1 cubic yard	1,750	MN STATE
Glass, uncrushed to manually broken	55 gallon drum	315	MN STATE

## Aluminum

Product	Volume	Weight (lbs)	Source
Aluminum foil, loose	1 cubic yard	48.1	Tellus
Aluminum scrap, cubed	1 cubic yard	424	Tellus
Aluminum scrap, whole	1 cubic yard	175	Tellus
Aluminum cans, uncrushed	1 case = 24 cans	0.89	U.S. EPA
Aluminum cans, crushed	13 gallons	7.02	U.S. EPA corr.
Aluminum cans, crushed	33 gallons	17.82	U.S. EPA
Aluminum cans, crushed	39 gallons	31.06	U.S. EPA
Aluminum cans, crushed & uncrushed mix	1 cubic yard	91.4	Tellus
Aluminum cans, uncrushed	1 full grocery bag	1.5	U.S. EPA
Aluminum cans, uncrushed	13 gallons	2.21	U.S. EPA
Aluminum cans, uncrushed	33 gallons	5.61	U.S. EPA
Aluminum cans, uncrushed	39 gallons	6.63	U.S. EPA
Aluminum cans (whole)	1 cubic yard	65	U.S. EPA
Aluminum, chips	1 cubic foot	7-15	FEECO
Aluminum/tin Cans commingled—uncrushed	33 gallon	11.55	U.S. EPA

## Ferrous Metals

Product	Volume	Weight (lbs)	Source
Metal scrap	55 gallon	226.5	U.S. EPA
Metal, car bumper	1 cubic yard	906	U.S. EPA
Paint can	each	40	U.S. EPA
Radiator, ferrous	5 gallon	2.21	U.S. EPA
Hanger (adult)	each	0.20	U.S. EPA
Hanger (child)	each	0.14	CIWMB
Tin can, ferrous	each	0.09	CIWMB
Tin can, ferrous	#2.5	0.13	U.S. EPA
Tin can, ferrous	#5	0.28	U.S. EPA
Tin coated steel cans	#10	0.77	U.S. EPA
Tin coated steel cans	1 cubic yard	850	U.S. EPA
Tin, tuna can (3/4 of #10), ferrous	1 case (6 #10 cans)	22	U.S. EPA
Tin, cat food can, ferrous	each	0.58	U.S. EPA
Tin, dog food can, large, ferrous	8 oz.	0.14	U.S. EPA
Tin, dog food can, ferrous	22 oz.	0.22	U.S. EPA
Tin, cast	15.5 oz.	0.11	U.S. EPA
Cast iron chips or borings	1 cubic foot	455	FEECO
Iron cast ductile	1 cubic foot	130-200	FEECO
Iron, ore	1 cubic foot	444	FEECO
Iron, wrought	1 cubic foot	100-200	FEECO
Steel, shavings	1 cubic foot	480	FEECO
Steel, solid	1 cubic foot	58-65	FEECO
Steel, trimmings	1 cubic foot	487	FEECO
Steel/tin cans, whole	1 cubic yard	150	MN STATE
Steel/tin cans, flattened	1 cubic yard	850	MN STATE
Steel/tin cans and aluminum cans commingled and flattened	1 cubic yard	230	MN STATE
Brass, cast	1 cubic foot	75-50	FEECO
Brass, scrap	1 cubic foot	519	FEECO
Bronze,	1 cubic yard	906.43	Tellus
Copper fittings, loose	1 cubic foot	552	FEECO
Copper pipe, whole	1 cubic yard	1,047.62	Tellus
Copper, cast	1 cubic yard	210.94	Tellus
Copper, ore	1 cubic foot	542	FEECO
Copper, scrap	1 cubic foot	120-150	FEECO
Copper, wire, whole	1 cubic yard	1,093.52	Tellus
Chrome ore (chromite)	1 cubic yard	337.5	Tellus
Lead, commercial	1 cubic foot	125-140	FEECO
Lead, ores	1 cubic foot	710	FEECO
Lead, scrap	1 cubic foot	200-270	FEECO
Nickel, ore	1 cubic yard	1,603.84	Tellus
Nickel, rolled	1 cubic foot	150	FEECO

## Food

Product	Volume	Weight (lbs)	Source
Food waste, pasteurized and prepared for animal feed	32 gallons	170	MN STATE
Bread, bulk	1 cubic foot	18	FEECO
Fat	1 cubic foot	57	FEECO
Fats, solid/liquid (cooking oil)	1 gallon	7.45	U.S. EPA
Fats, solid/liquid (cooking oil)	55 gallon drum	410	U.S. EPA
Fish, scrap	1 cubic foot	40-50	FEECO
Meat, ground	1 cubic foot	50-55	FEECO
Oil, olive	1 cubic foot	57.1	FEECO
Oyster shells, whole	1 cubic foot	75-80	FEECO
Produce waste, mixed, loose	1 cubic yard	1,443	Tellus



## Organics

Product	Volume	Weight (lbs)	Source
Yard trimmings, mixed	1 cubic yard	108	U.S. EPA
Yard trimmings, mixed	40 cubic yards	4,320	U.S. EPA
Grass	33 gallons	25	U.S. EPA
Grass	3 cubic yards	840	U.S. EPA
Grass & leaves	3 cubic yards	325	U.S. EPA
Large limbs & stumps	1 cubic yard	1,080	Tellus
Leaves, dry	1 cubic yard	343.7	Tellus
Leaves	33 gallons	12	U.S. EPA
Leaves	3 cubic yards	200-250	U.S. EPA
Pine needles, loose	1 cubic yard	74.42	Tellus
Prunings, dry	1 cubic yard	36.9	Tellus
Prunings, green	1 cubic yard	46.69	Tellus
Prunings, shredded	1 cubic yard	527	Tellus
Hay, baled	1 cubic foot	24	FEECO
Hay, loose	1 cubic foot	5	FEECO
Straw, baled	1 cubic foot	24	FEECO
Straw, loose	1 cubic foot	3	FEECO
Compost	1 cubic foot	30-50	FEECO
Compost, loose	1 cubic yard	463.39	Tellus

## Manure

Product	Volume	Weight (lbs)	Source
Manure	1 cubic foot	25	FEECO
Manure, cattle	1 cubic yard	1,628	Tellus
Manure, dried poultry	1 cubic foot	41.2	FEECO
Manure, dried sheep & cattle	1 cubic foot	24.3	FEECO
Manure, horse	1 cubic yard	1,252	Tellus

## Textiles

Product	Volume	Weight (lbs)	Source
Clothing, used, mixed	cubic yard	225	Tellus
Mixed textiles, baled	31" x 45" x 60"	885	MN STATE
Fabric, canvas	square yard	1	U.S. EPA
Leather, dry	1 cubic foot	54	FEECO
Leather, scrap, semi-compacted	1 cubic yard	303	Tellus
Rope	1 cubic foot	42	FEECO
String	yard	1 gram	U.S. EPA
Used clothing, mixed, loose	1 cubic yard	225	Tellus
Used clothing, compacted	1 cubic yard	540	Tellus
Wool	1 cubic foot	15-30	FEECO
Carpet & padding, loose	1 cubic yard	84.4	Tellus

## Rubber

Product	Volume	Weight (lbs)	Source
Tire, bus		75	U.S. EPA
Tire, car		20	U.S. EPA
Tire, truck		60-100	U.S. EPA
Rubber, car bumper		15	U.S. EPA
Rubber, manufactured	1 cubic foot	95	FEECO
Rubber, pelletized	1 cubic foot	50-55	FEECO

## Wood

Product	Volume	Weight (lbs)	Source
Cork, dry	1 cubic foot	15	FEECO
Pallet, wood or plastic	average 48" x 48"	40	U.S. EPA
Particle board, loose	1 cubic yard	425.14	Tellus
Plywood, sheet 2' x 4'	1 cubic yard	776.3	Tellus
Roofing/shake shingle, bundle	1 cubic yard	435.3	Tellus
Sawdust, loose	1 cubic yard	375	Tellus
Shavings, loose	1 cubic yard	440	Tellus
Wood chips, shredded	1 cubic yard	500	U.S. EPA
Wood scrap, loose	1 cubic yard	329.5	Tellus
Wood, bark, refuse	1 cubic foot	30	FEECO
Wood, pulp, moist	1 cubic foot	45–65	FEECO
Wood, shavings	1 cubic foot	15	FEECO

## Construction & Demolition Debris

Product	Volume	Weight (lbs)	Source
Ashes, dry	1 cubic foot	35–40	FEECO
Ashes, wet	1 cubic foot	45–50	FEECO
Asphalt, crushed	1 cubic foot	45	FEECO
Asphalt/paving, crushed	1 cubic yard	1,380	Tellus
Asphalt/shingles comp, loose	1 cubic yard	418.5	Tellus
Asphalt/tar roofing	1 cubic yard	2,919	Tellus
Bone meal, raw	1 cubic foot	54.9	FEECO
Brick, common hard	1 cubic foot	112–125	FEECO
Brick, whole	1 cubic yard	3,024	Tellus
Cement, bulk	1 cubic foot	100	FEECO
Cement, mortar	1 cubic foot	145	FEECO
Ceramic tile, loose 6"x 6"	1 cubic yard	1,214	Tellus
Chalk, lumpy	1 cubic foot	75–85	FEECO
Charcoal	1 cubic foot	15–30	FEECO
Clay, kaolin	1 cubic foot	22–33	FEECO
Clay, potter's dry	1 cubic foot	119	FEECO
Concrete, cinder	1 cubic foot	90–110	FEECO
Concrete, scrap, loose	1 cubic yard	1,855	Tellus
Cork, dry	1 cubic foot	15	FEECO
Earth, common, dry	1 cubic foot	70–80	FEECO
Earth, loose	1 cubic foot	76	FEECO
Earth, moist, loose	1 cubic foot	78	FEECO
Earth, mud	1 cubic foot	104–112	FEECO
Earth, wet, containing clay	1 cubic foot	100–110	FEECO
Fiberglass insulation, loose	1 cubic yard	17	Tellus
Fines, loose	1 cubic yard	2,700	Tellus
Glass, broken	1 cubic foot	80–100	FEECO
Glass, plate	1 cubic foot	172	FEECO
Glass, window	1 cubic foot	157	FEECO
Granite, broken or crushed	1 cubic foot	95–100	FEECO
Granite, solid	1 cubic foot	130–166	FEECO
Gravel, dry	1 cubic foot	100	FEECO
Gravel, loose	1 cubic yard	2,565	Tellus
Gravel, wet	1 cubic foot	100–120	FEECO
Gypsum, pulverized	1 cubic foot	60–80	FEECO
Gypsum, solid	1 cubic foot	142	FEECO
Lime, hydrated	1 cubic foot	30	FEECO
Limestone, crushed	1 cubic foot	85–90	FEECO
Limestone, finely ground	1 cubic foot	99.8	FEECO
Limestone, solid	1 cubic foot	165	FEECO
Mortar, hardened	1 cubic foot	100	FEECO
Mortar, wet	1 cubic foot	150	FEECO
Mud, dry close	1 cubic foot	110	FEECO
Mud, wet fluid	1 cubic foot	120	FEECO
Pebbles	1 cubic foot	90–100	FEECO
Pumice, ground	1 cubic foot	40–45	FEECO
Pumice, stone	1 cubic foot	39	FEECO
Quartz, sand	1 cubic foot	70–80	FEECO
Quartz, solid	1 cubic foot	165	FEECO
Rock, loose	1 cubic yard	2,570	Tellus
Rock, soft	1 cubic foot	100–110	FEECO

## Construction & Demolition Debris (cont.)

Product	Volume	Weight (lbs)	Source
Sand, dry	1 cubic foot	90-110	FEECO
Sand, loose	1 cubic yard	2,441	Tellus
Sand, moist	1 cubic foot	100-110	FEECO
Sand, wet	1 cubic foot	110-130	FEECO
Sewage, sludge (see Appendix I)	1 cubic foot	40-50	FEECO
Sewage, dried sludge (see Appendix I)	1 cubic foot	35	FEECO
Sheetrock scrap, loose	1 cubic yard	393.5	Tellus
Slag, crushed	1 cubic yard	1,998	Tellus
Slag, loose	1 cubic yard	2,970	Tellus
Slag, solid	1 cubic foot	160-180	FEECO
Slate, fine ground	1 cubic foot	80-90	FEECO
Slate, granulated	1 cubic foot	95	FEECO
Slate, solid	1 cubic foot	165-175	FEECO
Sludge, raw sewage (see Appendix I)	1 cubic foot	64	FEECO
Soap, chips	1 cubic foot	15-25	FEECO
Soap, powder	1 cubic foot	20-25	FEECO
Soap, solid	1 cubic foot	50	FEECO
Soil/sandy loam, loose	1 cubic yard	2,392	Tellus
Stone or gravel	1 cubic foot	95-100	FEECO
Stone, crushed	1 cubic foot	100	FEECO
Stone, crushed, size reduced	1 cubic yard	2,700	Tellus
Stone, large	1 cubic foot	100	FEECO
Wax	1 cubic foot	60.5	FEECO
Wood ashes	1 cubic foot	48	FEECO

Furniture				
Product	Material	Volume	Weight (lbs)	Source
Desk	Wood	Executive, double pedestal	345	EPA Business Guide
Desk	Laminate	Double pedestal (72" x 36")	299.5	EPA Business Guide
Desk	Laminate	Double pedestal (60" x 30")	231	EPA Business Guide
Desk	Laminate	Single pedestal (72" x 36")	250	EPA Business Guide
Desk	Laminate	Single pedestal (42" x 24")	146	EPA Business Guide
Desk	Metal	Double pedestal (72" x 36")	224.67	EPA Business Guide
Desk	Metal	Double pedestal (60" x 30")	184.75	EPA Business Guide
Desk	Metal	Double pedestal (54" x 24")	124	EPA Business Guide
Desk	Metal	Single pedestal (72" x 36")	189	EPA Business Guide
Desk	Metal	Single pedestal (48" x 30")	133.67	EPA Business Guide
Desk	Metal	Single pedestal (42" x 24")	146	EPA Business Guide
Desk	Metal	Single pedestal (40" x 20")	82	EPA Business Guide
Desk		Small modular panel system	422	EPA Business Guide
Work station		Large modular panel system	650	EPA Business Guide
Work station	Laminate	With return (60" x 30")	329.33	EPA Business Guide
Bridge	Metal	With return (60" x 30")	230.67	EPA Business Guide
Bridge	Wood	Executive	76.67	EPA Business Guide
Credenza	Laminate		140	EPA Business Guide
Credenza	Wood		250.78	EPA Business Guide
Credenza	Laminate		230.14	EPA Business Guide
Round conference table	Metal	With knee space (60" x 24")	156.67	EPA Business Guide
Bookcase	Wood	42" diameter	91.5	EPA Business Guide
Bookcase	Wood	3 shelves (36" wide)	90	EPA Business Guide
Bookcase	Wood	4 shelves (36" wide)	110.9	EPA Business Guide
Bookcase	Wood	5 shelves (36" wide)	138.8	EPA Business Guide
Bookcase	Wood	6 shelves (36" wide)	134.6	EPA Business Guide
Bookcase	Wood	7 shelves (34" wide)	138.5	EPA Business Guide



Furniture (cont.)				
Product	Material	Volume	Weight (lbs)	Source
Bookcase	Laminate	5 shelves	110	EPA Business Guide
Bookcase	Metal	2 shelves (34"–36")	44.5	EPA Business Guide
Bookcase	Metal	3 shelves (34"–36")	57.5	EPA Business Guide
Bookcase	Metal	4 shelves (34"–36")	70.5	EPA Business Guide
Bookcase	Metal	5 shelves (34"–36")	89	EPA Business Guide
File Cabinet	Metal	6 shelves (34"–36")	101	EPA Business Guide
File cabinet	Wood	2 drawer, lateral	155.14	EPA Business Guide
File cabinet	Laminate	2-drawer, lateral	171.5	EPA Business Guide
File cabinet	Metal	2-drawer, lateral (30"–42")	230.67	EPA Business Guide
File cabinet	Metal	4-drawer, lateral (36")	207.33	EPA Business Guide
File cabinet	Metal	2-drawer, vertical (Letter size)	60.6	EPA Business Guide
File cabinet	Metal	4-drawer, vertical (Letter size)	107.6	EPA Business Guide
File cabinet	Metal	2-drawer, vertical (Legal size)	71.5	EPA Business Guide
Chair	Metal	4-drawer, vertical (Legal size)	123.5	EPA Business Guide
Chair	Metal	Executive desk	51.167	EPA Business Guide
Chair	Metal	Guest arm	38.2	EPA Business Guide
Chair	Metal	Swivel arm	45.25	EPA Business Guide
Chair	Metal	Secretary with no arms	31.76	EPA Business Guide
Chair	Metal	Stacking	15.83	EPA Business Guide

## Appliances

Product	Volume	Weight (lbs)	Source
Air conditioner	1 unit	64.2	EPA-OSWER Appendix
Dishwasher	1 unit	92	EPA-OSWER Appendix
Dryer (clothes)	1 unit	130	EPA-OSWER Appendix
Freezer	1 unit	193	EPA-OSWER Appendix
Microwave oven	1 unit	50	EPA-OSWER Appendix
Range	1 unit	181.1	EPA-OSWER Appendix
Refrigerator	1 unit	267	EPA-OSWER Appendix
Washer (clothes)	1 unit	177	EPA-OSWER Appendix
Water heater	1 unit	131	EPA-OSWER Appendix

## Computers & Electronic Equipment

Product	Volume	Weight (lbs)	Source
Personal computer	CPU (central processing unit)	27	UNICOR
Computer monitor (CRT)	14"	15	UNICOR
Computer monitor (CRT)	15"	17	UNICOR
Computer monitor (CRT)	17"	25	UNICOR
Computer monitor (CRT)	20"	70	UNICOR
Computer monitor (LCD)	depends on size	20 - 30	UNICOR
Laptop		7	UNICOR
Computer printer		25.33	EPA Business Guide
Peripherals (keyboards, mice)		4 - 6	UNICOR
Toner cartridge		2.5	U.S. EPA
Fax machine		23	UNICOR
Typewriter		32	UNICOR
Copier	depends on size	179 - 500	UNICOR
Other small items (cell, calculators)		1 - 3	UNICOR

## Miscellaneous

Product	Volume	Weight (lbs)	Source
Commingled plastic, glass, and metal containers	1 cubic yard	177	MN STATE
Major household appliance (average)	1 unit	150	MN STATE
Motor vehicle battery	one	40	MN STATE
Oil Filter	3 filters	1	MN STATE
Latex Paint	1 gallon	10.9	MN STATE
Mattress	one	55	MN STATE
Ink	55 gallon drum	400	MN STATE
Household batteries	55 gallon drum	600	MN STATE
Fluorescent bulbs	1 four foot bulb	0.625	MN STATE

# Volume to Weight Conversion Sources

## **Minnesota State (MN STATE)**

<http://www.moea.state.mn.us>

Specific source cited - <http://www.moea.state.mn.us/publications/scoreform2001.pdf>

## **FEECO**

<http://www.feeco.com>

## **Tellus Institute**

<http://www.tellus.org>

## **U.S. Environmental Protection Agency (U.S. EPA)**

<http://www.epa.gov>

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## **California Integrated Waste Management Board (CIWMB)**

<http://www.ciwmb.ca.gov>

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C&D - <http://www.ciwmb.ca.gov/lqlibrary/DSG/ICandD.htm>

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## **UNICOR**

<http://www.unicor.gov>