

Waste definitions

Updated September 2009*

EPA 842/09: This guideline provides definitions for a range of terms commonly used within the waste industry.

Introduction

Almost all the definitions have been sourced from Environment Protection Authority (EPA) licenses, existing publications, legislation and Australian Standards. The remainder are the result of modifications to standard terminology to ensure clarity and relevance, or were developed based on recommendations from an Industry Reference Group.

This publication will be applied by the EPA in developing new licences, licence conditions and guidelines. Existing licences will be progressively updated to reflect the new definitions.

Definitions

Term	Definition
Asbestos	<p>The fibrous form of mineral silicates belonging to the serpentine and amphibole groups of rock-forming minerals, including actinolite, amosite (brown asbestos), anthophyllite, chrysotile (white asbestos), crocidolite (blue asbestos), tremolite, or any mixture containing one or more of the mineral silicates belonging to the serpentine and amphibole groups.</p> <p>Asbestos-containing material is any, material, object, product or debris that contains asbestos.</p> <p>Friable asbestos means</p> <ul style="list-style-type: none">(a) non-bonded asbestos fabric, or(b) asbestos-containing material that:<ul style="list-style-type: none">(i) is in the form of powder, or(ii) can be crumbled, pulverised or reduced to powder by hand pressure when dry. <p>Non-friable asbestos means asbestos-containing material in which the asbestos fibres are bonded by cement, vinyl, resin or other similar material, eg asbestos cement.</p> <p>Asbestos Waste means waste asbestos-containing material (ACM) including all removed ACM, as well as disposable items used during asbestos removal work, such as plastic sheeting and disposable coveralls, respirators and cleaning rags.</p> <p><i>Advice on the requirements for handling and transport of this waste can be found in EPA Guideline, Wastes containing asbestos: removal, transport and disposal.</i></p> <p><i>See also Approved Codes of Practice under the OHS&W Act 1986.</i></p>

* Last updated June 2009. Changes to legislation.

Term	Definition
Basel Convention	The <i>Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal</i> . Adopted in Basel, Switzerland on 22 March 1989.
Biodegradable	Capable of being decomposed by the action of biological processes.
Biosolids	Stabilised organic solids derived totally or in part from wastewater treatment processes that can be managed safely to utilise beneficially their nutrient, soil conditioning, energy, or other value. The term biosolids does not include untreated wastewater sludges, industrial sludges or the product produced from the high temperature incineration of sewage sludge. It should also be noted that many other solid waste materials are not classified as biosolids eg animal manures, food processing or abattoir wastes, solid inorganic wastes and untreated sewage or untreated wastes from septic systems/sullage wastes.
Building or Demolition Waste	Construction and Demolition Waste (Inert)
Cleaner production	Continuous use of maintenance management practices and technologies used in the manufacture of products and provision of services resulting in more efficient use of resources (including energy) and the reduction of waste and risk to the environment.
Clinical and Related Waste	Medical Waste
Commercial and Industrial Waste (C&I)	<p>Commercial and Industrial Waste (General)</p> <p>The solid component of the waste stream arising from commercial, industrial, government, public or domestic premises (not collected as Municipal Solid Waste), but does not contain Listed Waste, Hazardous Waste or Radioactive Waste.</p> <p>Commercial and Industrial Waste (Listed)</p> <p>The solid component of the waste stream arising from commercial, industrial, government, public or domestic premises (not collected as Municipal Solid Waste), that contains or consists of Listed Waste.</p>
Compost	Pasteurised material resulting from the controlled microbiological transformation of compostable organic waste under aerobic and thermophilic conditions for at least six weeks.
Compostable Organic Waste	<p>The biodegradable component of the waste stream that is of biological origin but does not contain any Listed Waste, Radioactive Waste or Hazardous Waste.</p> <p><i>Notes: These organic materials may be processed through composting works to formulate valuable recycled organic products.</i></p> <p><i>Suitability of compostable organic waste as feedstock is dependent on the location, site design, processes and potential to cause environmental harm.</i></p>
Composting	The controlled process whereby compostable organic wastes are pasteurised and microbiologically transformed under aerobic and thermophilic conditions for a period not less than six weeks, including the pasteurisation phase.

Term	Definition
Construction and Demolition Waste (C&D)	<p data-bbox="371 248 887 297">Construction and Demolition Waste (Inert)</p> <p data-bbox="371 315 1414 461">The solid inert component of the waste stream arising from the construction, demolition or refurbishment of buildings or infrastructure but does not contain Municipal Solid Waste, Commercial and Industrial Waste (General), Listed Waste, Hazardous Waste or Radioactive Waste.</p> <p data-bbox="371 479 451 510"><i>Notes:</i></p> <p data-bbox="371 517 1409 701"><i>C&D waste (Inert) should be such that the entire composition of the C&D materials is Inert Waste with no contamination by foreign material. As such it is acknowledged that - with the aim of no contamination - there may be some negligible components of foreign material contained in the waste (as a guide, 0–5% maximum by volume per load). C&D waste (Inert) includes bricks, concrete, tiles and ceramics, steel and inert soils.</i></p> <p data-bbox="371 719 1390 864"><i>Foreign material includes green waste, plastics, electrical wiring, timber, paper, insulation, tins, packaging and other waste associated with construction or demolition of a building or other infrastructure. Foreign material must not be Municipal Solid Waste, Liquid, Listed, Hazardous or Radioactive Waste.</i></p>
	<p data-bbox="371 902 903 952">Construction and Demolition Waste (Mixed)</p> <p data-bbox="371 958 1406 1104">The solid component of waste stream arising from the construction, demolition or refurbishment of buildings or infrastructure which contains some foreign material (as set out below), but does not contain Municipal Solid Waste, Commercial and Industrial Waste (General), Listed Waste, Hazardous Waste or Radioactive Waste.</p> <p data-bbox="371 1122 451 1153"><i>Notes:</i></p> <p data-bbox="371 1160 1430 1267"><i>C&D Waste is considered C&D Waste (Mixed) if it contains significant foreign materials from construction and demolition activities that would render the load of waste no longer inert (as a guide, 5–25% maximum by volume per load).</i></p> <p data-bbox="371 1285 1390 1431"><i>Foreign material includes green waste, plastics, electrical wiring, timber, paper, insulation, tins, packaging and other waste associated with construction or demolition of a building or other infrastructure. Foreign material must not be Municipal Solid Waste, Liquid, Listed, Hazardous or Radioactive Waste.</i></p> <p data-bbox="371 1449 1426 1556"><i>Where waste from construction and demolition sites contains predominantly foreign materials or domestic waste, such as waste from household clean-ups collected by commercial skip bins, this is defined as Commercial and Industrial Waste (General).</i></p>
Controlled Waste	<p data-bbox="371 1574 1393 1653">Waste as defined in the National Environment Protection (Movement of Controlled Wastes between States and Territories) Measure 1998.</p>
Disposal	<p data-bbox="371 1659 1015 1720">Final stage in the management of waste, which includes:</p> <ul data-bbox="371 1727 1019 1984" style="list-style-type: none"> <li data-bbox="371 1727 818 1758">• treatment of waste prior to disposal <li data-bbox="371 1776 1019 1830">• incineration of waste, with or without energy recovery <li data-bbox="371 1848 788 1879">• deposit of waste to land or water <li data-bbox="371 1897 804 1928">• discharge of liquid waste to sewer <li data-bbox="371 1946 995 1984">• permanent, indefinite or long term storage of waste <p data-bbox="371 2002 1420 2112"><i>Note: Long term storage of waste includes waste stored for a period of time that is not considered temporary by the EPA, whether for a defined period or not, and for which there is no known or foreseeable market for resource recovery.</i></p>

Term	Definition
Dispose	To dispose of waste, including the deposit of waste and causing or allowing waste to be disposed or deposited.
Domestic Waste	Means the waste produced in the course of a domestic activity.
Dry Cleaning Residues	The waste generated by dry cleaning activities (chemical or organic).
Encapsulation	A process that creates a structure that completely surrounds sealed containers of waste by concrete or another solid material approved in writing by the EPA, to reduce the likelihood of the formation of leachate by physically limiting water from contacting the waste or the container.
E-waste	<p>Waste electrical and electronic equipment that is dependent on electric currents or electromagnetic fields in order to function (including all components, subassemblies and consumables which are part of the original equipment at the time of discarding). For example e-waste may include:</p> <ul style="list-style-type: none"> a Consumer/entertainment electronics (eg televisions, DVD players and tuners) b Devices of office, information and communications technology (eg computers, telephones and mobile phones) c Household appliances (eg fridges, washing machines and microwaves) d Lighting devices (eg desk lamps) e Power tools (eg power drills) with the exclusion of stationary industrial devices f Devices used for sport and leisure including toys (eg fitness machines and remote control cars).
Extended producer responsibility (EPR)	<p>An environmental policy approach where the producers' responsibility, physical and/or financial, for a product is extended to the post-consumer stage of a product's life cycle.</p> <p><i>Notes:</i></p> <p><i>Producers accept their responsibility when they design their products to minimize life cycle impacts and when they accept legal, physical and/or economic responsibility for the environmental impacts that cannot be eliminated by design. A primary function of EPR is the transfer of the costs and/or physical responsibility (full or partial) of waste management away from local government authorities and the general taxpayer to that of the producer.</i></p> <p><i>EPR can be government-driven via regulation or through voluntary initiatives whereby producers take responsibility for managing the end-of-life aspects of their products.</i></p>
Flammable (explosive) range	<p>The range of a gas or vapour concentration that will burn or explode if an ignition source is introduced.</p> <p>Lower explosive limit (LEL): The lowest concentration of a gas in air (% of volume) that will ignite.</p> <p>Upper explosive limit (UEL): The highest concentration of a gas in air (% of volume) that will ignite.</p>

Term	Definition
Green Waste	The vegetative portion of the waste stream arising from various sources including waste from domestic and commercial premises and municipal operations.
Hazardous Waste	<p>Listed waste having a characteristic described in schedule A list 2 of the <i>National Environment Protection (Movement of controlled waste between States and Territories) Measure</i>.</p> <p><i>Note: Hazardous Waste includes any unwanted or discarded material (excluding radioactive material), which because of its physical, chemical or infectious characteristics can cause significant hazard to human health or the environment when improperly treated, stored, transported, disposed of or otherwise managed.</i></p>
Hexachlorobenzene (HCB) Waste	<p>HCB waste means any waste liquid, sludge or solid (including waste articles and containers) containing HCB. HCB has the chemical formula C₆Cl₆.</p> <p>Scheduled HCB waste means all waste materials in Appendix A (of the <i>Hexachlorobenzene Waste Management Plan 1996</i>) or any liquid, sludge or solid (including waste articles and containers) containing 50 mg/kg or more of HCB occurring in or on the premises or having migrated from the premises.</p> <p><i>Hexachlorobenzene Waste Management Plan 1996:</i> <www.environment.gov.au/settlements/publications/chemicals/scheduled-waste/hcbplan.html>.</p>
Incineration	<p>The thermal destruction of waste for the primary purpose of disposal, with or without recovery of energy.</p> <p><i>Note: The term incineration generally means ‘the act of burning to ashes’ however the above definition is the meaning used by the EPA in relation to waste.</i></p>
Inert Waste	Solid waste that has no active chemical or biological properties. These wastes do not undergo environmentally significant physical, chemical or biological transformation and have negligible potential to cause environmental harm.
Integrated waste management	The management of the entire waste process including generation, storage, collection, transportation, resource recovery, treatment and disposal. Integrated waste management employs several waste control methods based on the waste hierarchy including avoidance, reduction, recycling, reuse, recovery, treatment and disposal, aimed at minimising the environmental impact of waste.
Kerbside Collected Green Waste	means Green Waste collected during the regular domestic council waste collection.
Kerbside Collected Recyclable Material	means the segregated portion of Municipal Solid Waste—Kerbside bin collection consisting of dry recyclable materials including beverage containers, paper, cardboard, plastics, glass and metals.

Term	Definition
Landfill	A waste disposal site used for the controlled deposit of solid waste onto or into land.
	Large landfill
	A landfill with a total waste capacity greater than 130,000 tonnes (approximately 200,000 cubic metres).
	Medium landfill
	A landfill with a total waste capacity between 26,000 tonnes (approximately 52,000 cubic metres) and 130,000 tonnes (approximately 200,000 cubic metres).
	Small landfill
	A landfill with a total waste capacity less than 26,000 tonnes (approximately 52,000 cubic metres).
Landfill closure and post closure plans	A written document which specifies the closure activities, post-closure activities and quality assurance procedures for a landfill activity, including progressive closure of landfill cells, leachate management, landfill gas management and monitoring in order to prevent or minimise the risk of harm to the environment or human health from a closed landfill.
Landfill gas	Gases arising from the decomposition of wastes deposited or disposed of to landfill, with methane and carbon dioxide being major constituents.
Leachate	A liquid that has percolated through and/or been generated by decomposition of waste material. It includes water that comes into contact with waste and is potentially contaminated by nutrients, metals, salts and other soluble or suspended components and products of decomposition of the waste.
Liquid Waste	Waste classified as liquid waste in accordance with the assessment process set out in the guideline <i>Liquid waste classification test</i> (2003).
	<i>Note: Liquid waste includes any waste that is liquid at 20°C regardless of whether or not it is packaged or otherwise contained, and irrespective of whether or not the packaging or container is to be disposed of together with the liquid that it contains.</i>
Listed Waste	means wastes listed in Part B of Schedule 1 of the Environment Protection Act 1993.
Materials Recovery Facility (MRF)	A depot for the treatment of waste for resource recovery, other than a composting depot.
Medical Waste	means medical wastes listed in Part B of Schedule 1 of the <i>Environment Protection Act 1993</i> .
Mulch	Dry green waste that has been processed by way of chipping, shredding or similar mechanical process, but does not contain putrefying material.
	<i>Note: The Australian Standard 4454-2003 for Composts, soil conditioners and mulches, specifies properties for mulch including that it needs to be pasteurised. Pasteurisation reduces the risks from pathogens and plant propagules.</i>

Term	Definition
Municipal Solid Waste (MSW)	<p>Municipal Solid Waste—Domestic sources</p> <p>The solid component of the waste stream arising from domestic premises that is received directly from the public, it is not received as Municipal Solid Waste - Kerbside bin collection.</p> <p>Municipal Solid Waste—Hard Waste</p> <p>The solid component of the waste stream arising from domestic premises which is not suitable for collection using a kerbside bin system, but does not contain Commercial and Industrial Waste (General), Listed Waste, Hazardous Waste, Radioactive Waste or waste that is not deemed suitable for collection by local councils.</p> <p>Note: MSW (Hard Waste) is typically collected in campaigns by local councils, which also advise on what wastes are suitable for that collection.</p> <p>Municipal Solid Waste—Kerbside Bin Collection</p> <p>The solid component of the waste stream arising from mainly domestic but also commercial, industrial, government and public premises including waste from council operations, services and facilities that is collected by or on behalf of the council via kerbside collection, but does not contain Commercial and Industrial Waste (General), Listed Waste, Hazardous Waste or Radioactive Waste.</p>
Organochlorine Pesticide (OCP) Waste	<p>Waste containing those organochlorine pesticides which were originally sold for use as pesticides, or breakdown products of those pesticides, as listed in Appendix A of the <i>Organochlorine Pesticides Waste Management Plan 1999</i>.</p> <p>Scheduled OCP Waste means waste containing OCPs at levels at or in excess of the threshold concentration (50 mg/kg) and threshold quantity (50 g).</p> <p>Non-scheduled OCP Waste means waste containing OCPs at levels below the threshold concentration (50 mg/kg) or threshold quantity (50 g) and above the concentration level defined as exempt OCP waste.</p> <p>Exempt OCP Waste including the residues of destruction processes, means waste containing OCPs at 2 mg/kg or less.</p> <p>Organochlorine Pesticides Waste Management Plan 1999: <www.environment.gov.au/settlements/publications/chemicals/scheduled-waste/pubs/ocplan.pdf>.</p>
Pasteurisation	<p>A process whereby organic materials are treated to significantly reduce the numbers of plant and animal pathogens and plant propagules.</p>
Pasteurised product	<p>An organic product that has undergone pasteurisation but is relatively immature and lacking in stability.</p>

Term	Definition
Polychlorinated Biphenyl (PCB) Waste	<p>PCB is a substance in which the biphenyl structure has chlorine atoms substituted for hydrogen atoms at varying degrees. PCB has the chemical formula $C_{12}H_{10-n}Cl_n$ where 'n' is 1–10.</p> <p>Scheduled PCB waste means any material (including material in equipment) that has no further use and that contains PCBs at levels at or in excess of the threshold concentration (50 mg/kg) and threshold quantity (50 g).</p> <p>Non-scheduled PCB waste means any material (including material in equipment) that has no further use and that contains PCBs at levels below the threshold concentration (50mg/kg) or threshold quantity (50 g) and above the concentration level defined as PCB free.</p> <p>PCB-free means material or waste containing PCBs at a concentration of 2 mg/kg or less.</p> <p><i>Polychlorinated Biphenyls Management Plan 2003:</i> <www.environment.gov.au/settlements/publications/chemicals/scheduled-waste/pubs/biphenyls.pdf>.</p>
Putrescible Waste	<p>The component of the waste stream liable to become putrid. For example: organic matter that has the potential to decompose with the formation of malodorous substances, usually refers to vegetative, food and animal products.</p>
Putrefying	<p>The act of putrefaction, which means the state or action of becoming putrid or rotten due to the decomposition by bacteria of dead animal or plant tissue, becoming foul smelling as a result.</p>
Pyrolysis	<p>The endothermic chemical decomposition of a condensed substance by the action of heat, which does not involve reactions with oxygen or any other reagents but may take place in their presence; chemical reaction initiated by molecular breakdown at high temperature.</p>
Quarantine Waste	<p>Quarantine Waste means material or goods of quarantine concern as determined by the Australian Quarantine and Inspection Service (AQIS) and which is subject to and or identified under Commonwealth Legislation (<i>Quarantine Act 1908</i>) and associated regulations and proclamations.</p> <p>This includes:</p> <ol style="list-style-type: none"> a material used to pack and stabilise imported goods b galley food and other waste from overseas vessels c human, animal or plant waste brought into Australia d refuse or sweepings from a hold of an overseas vessel e any other waste or other material, which comes into contact with Quarantine Waste f contents of AQIS airport amnesty bins g articles seized by AQIS and/or not collected by clients. <p><i>Quarantine Act 1908:</i> <www.austlii.edu.au/au/legis/cth/consol_act/qa1908131.txt/cgi-bin/download.cgi/download/au/legis/cth/consol_act/qa1908131.rtf></p> <p><i>Quarantine Regulations 2000:</i> <www.comlaw.gov.au/comlaw/Legislation/LegislativeInstrumentCompilation1.nsf/0/DA413F48F8983E81CA257472007FAF66?OpenDocument>.</p>

Term	Definition
Radioactive Waste	<p>Any radioactive substance in the form of a solid, liquid or gas (or combination thereof) that is left over, surplus or an unwanted byproduct of any business or domestic activity, whether of value or not, but excluding the following:</p> <ul style="list-style-type: none"> a substances to which the regulations under the <i>Radiation Protection and Control Act 1982</i> do not apply b substances that have been exempted from regulatory control under provisions of the Radiation Protection and Control Act c material containing activities or activity concentrations of radioactive elements below the exemption levels specified in the National Directory for Radiation Protection published by the Australian Radiation Protection and Nuclear Safety Agency.
Recovery	A process that extracts materials or energy from the waste stream.
Recycle/recycling	<p>Set of processes (including biological) for converting recovered materials that would otherwise be disposed of as wastes into useful materials and or products. The following definitions apply:</p> <p>Closed loop recycling: recycling process in which the reclaimed output is used as an input to the same product system.</p> <p>Open loop recycling: recycling process in which the reclaimed output is used as an input to another product system.</p>
Recycled materials	Materials recovered and manufactured into products.
Recycling stream	The component of the waste stream that is separated from waste intended for disposal, which is then sorted and recycled.
Resource Recovery	<p>In relation to waste, means –</p> <ul style="list-style-type: none"> a reusing the waste; or b recycling the waste; or c recovering energy and other resources from the waste.
Reuse	<p>Using a waste product again for the same or a different purpose without further manufacture, eg use of second-hand boxes for packing goods or for storage of household goods.</p> <p><i>Note: The terms 'reuse' and 'recycle' are not synonymous.</i></p>

Term	Definition
Scheduled Waste	<p>A material or article containing a chemical, or mixture of chemicals, exceeding the threshold concentration and threshold quantity (see the relevant specific scheduled waste management plan), which is:</p> <ul style="list-style-type: none"> • organic in nature • resistant to degradation by chemical, physical or biological means • toxic to humans, animals, vegetation or aquatic life • bioaccumulative in humans, flora and fauna • listed on Schedule X. <p><i>Note: For scheduled wastes, their management plans and Schedule X, refer to Australian Government Department of Environment and Water Resources <www.environment.gov.au/settlements/chemicals/scheduled-waste/index.html>.</i></p>
Secondary Resources	Waste materials or waste objects recovered from the waste stream that can be used to provide energy and materials for reuse and recycling.
Solid Waste	Any waste that is not gaseous and is not a Liquid Waste as determined by EPA Guideline, <i>Liquid waste classification test (2003)</i> .
Source separation	Physical sorting of the waste at the point of generation into specific components suitable for resource recovery from the residual component.
Suitably qualified consultant	<p>A person who holds relevant qualifications, has demonstrated professional experience and expertise encompassing an appropriate range of competencies and is either a full member or is eligible for full membership of one of the following or equivalent professional organisations:</p> <ol style="list-style-type: none"> 1 The Institution of Engineers Australia 2 The Association of Consulting Engineers Australia 3 The Australian Contaminated Land Consultants Association Incorporated.
Suitably Qualified Surveyor	<p>A licensed or registered surveyor in accordance with the <i>Survey Act 1992</i>, or a person who is a full member of, or eligible for full membership of, one of the following organisations:</p> <ol style="list-style-type: none"> 1 The Institution of Surveyors Australia Incorporated 2 The Association of Consulting Surveyors Incorporated 3 The Institution of Engineering and Mining Surveyors Incorporated.
Transfer Station	A depot for the reception and aggregation of waste streams prior to their transport to another depot or location for further sorting, resource recovery or disposal.
Used tyres	Used whole tyres and used tyre pieces exceeding 250 mm in any dimension.

Term	Definition
Waste	<p>As defined under the Environment Protection Act 1993,</p> <p>Waste means —</p> <ul style="list-style-type: none">a any discarded, rejected, abandoned, unwanted or surplus matter, whether or not intended for sale or for recycling, reprocessing, recovery or purification by a separate operation from that which produced the matter; orb anything declared by regulation (after consultation under section 5A) or by an environment protection policy to be waste, <p>whether of value or not.</p>
Waste Fill	<p>As defined in the Environment Protection Regulations 2009 waste fill means: waste consisting of clay, concrete, rock, sand, soil or other inert mineralogical matter in pieces not exceeding 100 millimetres in length and containing chemical substances in concentrations (calculated in a manner determined by the Authority) less than the concentrations for those substances set out in Schedule 6 but does not include waste consisting of or containing asbestos or bitumen.</p> <p><i>The Waste Fill chemical criteria are specified in Schedule 6 of the Environment Protection Regulations 2009 <www.legislation.sa.gov.au></i></p>

Waste definitions

Attachment 1 Listed Waste as set out in Part B of Schedule 1 of the Environment Protection Act 1993.

Waste codes can be found in EPA Guideline, *Waste transport certificate (2002)*.

Waste stream or waste having as constituents:

Acids and acidic solutions

Adhesives (excluding solid inert polymeric materials)

Alkali metals and alkaline earth metals

Alkalis and alkaline solutions

Antimony and antimony compounds and solutions

Arsenic and arsenic compounds and solutions

Asbestos

Barium compounds and solutions

Beryllium and beryllium compounds

Boron and boron compounds

Cadmium and cadmium compounds and solutions

Calcium carbide

Carbon disulphide

Carcinogens, teratogens and mutagens

Chlorates

Chromium compounds and solutions

Copper compounds and solutions

Cyanides or cyanide solutions and cyanide complexes

Cytotoxic wastes

Dangerous substances within the meaning of the *Dangerous Substances Act 1979*

Distillation residues

Fluoride compounds

Halogens

Heterocyclic organic compounds containing oxygen, nitrogen or sulphur

Hydrocarbons and their oxygen, nitrogen and sulphur compounds (including oils)

Isocyanate compounds (excluding solid inert polymeric materials)

Laboratory chemicals

Lead compounds and solutions

Lime sludges or slurries

Manganese compounds

Medical waste consisting of—

- a a needle, syringe with needle, surgical instrument or other article that is discarded in the course of medical*, dental or veterinary practice or research and has a sharp edge or point capable of inflicting a penetrating injury on a person who comes into contact with it; or
- b human tissue, bone, organ, body part or foetus; or
- c a vessel, bag or tube containing a liquid body substance; or
- d an animal carcass discarded in the course of veterinary or medical* practice or research; or
- e a specimen or culture discarded in the course of medical*, dental or veterinary practice or research and any material that has come into contact with such a specimen or culture; or
- f any other article or matter that is discarded in the course of medical*, dental or veterinary practice or research and that poses a significant risk to the health of a person who comes into contact with it.

*medical practice includes the practice of pathology and the operation of an immunisation clinic.

Mercaptans

Mercury compounds and equipment containing mercury

Nickel compounds and solutions

Nitrates

Organic halogen compounds (excluding solid inert polymeric materials)

Organic phosphates

Organic solvents

Organometallic residues

Oxidising agents

Paint sludges and residues

Perchlorates

Peroxides

Pesticides (including herbicides and fungicides)

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Pharmaceutical wastes and residues

Phenolic compounds (excluding solid inert polymeric materials)

Phosphorus and its compounds

Polychlorinated biphenyls

Poisons within the meaning of the *Drugs Act 1908*

Reactive chemicals

Reducing agents

Selenium and selenium compounds and solutions

Silver compounds and solutions

Solvent recovery residues

Sulphides and sulphide solutions

Surfactants

Thallium and thallium compounds and solutions

Vanadium compounds

Zinc compounds and solutions

Attachment 2 Hazardous Waste Characteristics as described in Appendix 2 of the Hazardous Waste Strategy 2006–10

Dangerous Goods Class (UN Class*)	UN Code	
1	H1	<p>Explosive</p> <p>An explosive substance or waste is a solid or liquid substance or waste (or mixture of substances or wastes) which is in itself capable by chemical reaction of producing gas at such a temperature and pressure and at such a speed as to cause damage to the surroundings.</p>
3	H3	<p>Flammable liquids</p> <p>The word 'flammable' has the same meaning as 'inflammable'. Flammable liquids are liquids, or mixtures of liquids, or liquids containing solids in solution or suspension (for example, paints, varnishes, lacquers, etc, but not including substances or wastes otherwise classified on account of their dangerous characteristics) which give off flammable vapour at temperatures of not more than 60.5°C, closed-cup test, or not more than 65.6°C, open-cup test. (Since the results of open-cup tests and of closed-cup tests are not strictly comparable and even individual results by the same test are often variable, regulations varying from the above figures to make allowances for such differences would be within the spirit of the definition.)</p>
4.1	H4.1	<p>Flammable solids</p> <p>Solids or waste solids, other than those classified as explosives, which under conditions encountered in transport are readily combustible, or may cause or contribute to fire through friction.</p>
4.2	H4.2	<p>Substances or wastes liable to spontaneous combustion</p> <p>Substances or wastes which are liable to spontaneous heating under normal conditions encountered in transport, or to heating up in contact with air, and being then liable to catch fire.</p>
4.3	H4.3	<p>Substances or wastes which, in contact with water, emit flammable gases</p> <p>Substances or wastes which, by interaction with water, are liable to become spontaneously flammable or to give off flammable gases in dangerous quantities.</p>
5.1	H5.1	<p>Oxidising</p> <p>Substances or wastes which, while in themselves not necessarily combustible, may, generally by yielding oxygen, cause or contribute to the combustion of other materials.</p>
5.2	H5.2	<p>Organic peroxides</p> <p>Organic substances or wastes which contain the bivalent OO structure are thermally unstable substances which may undergo exothermic self-accelerating decomposition.</p>

Dangerous Goods Class (UN Class*)	UN Code	
6.1	H6.1	Poisonous (acute) Substances or wastes liable either to cause death or serious injury or to harm human health if swallowed or inhaled or by skin contact.
6.2	H6.2	Infectious substances Substances or wastes containing viable micro-organisms or their toxins which are known or suspected to cause disease in animals or humans.
8	H8	Corrosives Substances or wastes which, by chemical action, will cause severe damage when in contact with living tissue, or in the case of leakage, will materially damage, or even destroy, other goods or the means of transport; they may also cause other hazards.
9	H10	Liberation of toxic gases in contact with air or water Substances or wastes which, by liberation with air or water, are liable to give off toxic gases in dangerous quantities.
9	H11	Toxic (delayed or chronic) Substances or wastes which, if they are inhaled or ingested, or if they penetrate the skin, may involve delayed or chronic effects, including carcinogenicity.
9	H12	Ecotoxic Substances or wastes which, if released, present or may present immediate or delayed adverse impacts to the environment by means of bioaccumulation and/or toxic effects upon biotic systems.
9	H13	Capable of yielding another material which possesses H1-H12 Capable by any means, after disposal, of yielding another material (eg leachate) which possesses any of the characteristics listed above.
		Other reasons Potential to have a significant adverse impact on ambient air quality. Potential to have a significant adverse impact on ambient marine, estuarine or fresh water quality.

* UN Class and Code relates to the hazard classification system included in the United Nations Recommendations on the Transport of Dangerous Goods as used in Australia.

Attachment 3 Waste Fill Chemical Criteria as listed in Schedule 6 of the Environment Protection Regulations 2009

Note: refer to the complete definition of Waste Fill to which this Schedule is attached, which includes physical characteristics.

Concentrations of chemical substances in waste

Chemical substance	Concentrations (mg per kg of waste)
Aldrin/dieldrin (total)	2
Arsenic	20
Barium	300
Benzene	1
Benzo(a)pyrene	1
Beryllium	20
Cadmium	3
Cobalt	170
Chlordane	2
Chromium (III)	400
Chromium (VI)	1
Copper	60
Cyanides (total)	500
DDT	2
Ethylbenzene	3.1
Heptachlor	2
Lead	300
Manganese	500
Mercury	1
Nickel	60
Petroleum hydrocarbons TPH C6-C9 (total)	65
Petroleum hydrocarbons TPH>C9	1,000
Phenolic compounds (total)	0.5

Chemical substance	Concentrations (mg) per kg of waste)
Polychlorinated biphenyls (PCBs)	2
Polycyclic aromatic hydrocarbons (PAH) (total)	5
Toluene	1.4
Xylene (total)	14
Zinc	200

Disclaimer

This publication is a guide only and does not necessarily provide adequate information in relation to every situation. This publication seeks to explain your possible obligations in a helpful and accessible way. In doing so, however, some detail may not be captured. It is important, therefore, that you seek information from the EPA itself regarding your possible obligations and, where appropriate, that you seek your own legal advice.

Further information

Legislation

Legislation may be viewed on the Internet at: <www.legislation.sa.gov.au>

Copies of legislation are available for purchase from:

Service SA Government Legislation Outlet
 Adelaide Service SA Centre
 108 North Terrace
 Adelaide SA 5000

Telephone: 13 23 24
 Fax: (08) 8204 1909
 Internet: <service.sa.gov.au>

For general information please contact:

Environment Protection Authority
 GPO Box 2607
 Adelaide SA 5001

Telephone: (08) 8204 2004
 Facsimile: (08) 8124 4670
 Freecall (country): 1800 623 445
 Internet: <www.epa.sa.gov.au>
 Email: <epainfo@epa.sa.gov.au>