Overview

Many substances are potentially dangerous to humans, animals and plants. These hazardous substances include:

- agricultural chemicals such as pesticides, fungicides, insecticides; and
- industrial chemicals such as paints, dyes, solvents, cleaning agents and plastics.

Who is responsible for regulating chemicals and pesticides?

Responsibility for regulating chemicals and pesticides is split between the Federal and State governments:

- the Federal Government registers and assesses the safety of:
  - industrial chemicals; and
  - pesticides and veterinary chemicals.
- State and Territory governments regulate the use, transport and disposal of chemicals.
This Fact Sheet explains the Commonwealth’s registration and assessment process for industrial chemicals, pesticides and veterinary chemicals, and outlines the NSW regulatory framework for managing chemicals and pesticides.

**Industrial chemicals**

**What is an ‘industrial chemical’?**

Industrial chemicals are chemicals which have an industrial use and include things such as solvents, adhesives, plastics, laboratory chemicals, refrigeration chemicals and cosmetics. They do not include chemicals used solely as medicines, pesticides, veterinary chemicals, food or food additives, or radioactive chemicals.

There is a national system of notification and assessment for industrial chemicals. A primary focus of the system is the assessment of new chemicals before they can be imported or manufactured in Australia, although existing chemicals can be assessed too if there is a concern.

The Federal Minister for Health is responsible for administering the notification and assessment of chemicals, through the [Department of Health](#).

**NICNAS**

The National Industrial Chemicals Notification and Assessment Scheme (NICNAS) was established in 1990. NICNAS is located in the Commonwealth Department of Health.

NICNAS’ website sets out its responsibilities, which include:

- assessing industrial chemicals that are new to Australia for their health and environmental effects, before they can be used or released into the environment; and
- assessing industrial chemicals that are already in use in Australia (existing chemicals) in response to concerns about their safety on health and environmental grounds.

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2 *Industrial Chemicals (Notification and Assessment) Act 1989* (Cth), s. 7.
3 *Industrial Chemicals (Notification and Assessment) Act 1989* (Cth), s. 7.
4 *Industrial Chemicals (Notification and Assessment) Act 1989* (Cth), s. 5 defines ‘excluded uses’.
6 Administrative Arrangements Order (18 September 2013) (Cth), Part 10.
New industrial chemicals must be notified and assessed

New chemicals are industrial chemicals which are being introduced into Australia for the first time and are not already listed on the Australian Inventory of Chemical Substances, or are a listed chemical subject to a condition of use but are being introduced for another use.\(^8\)

Importers or manufacturers of a new industrial chemical must notify NICNAS before importing or manufacturing the substance.\(^9\) NICNAS will assess the environmental, public health, and occupational health and safety risks posed by the new chemical.\(^10\) NICNAS then issues the importer or manufacturer with a certificate or permit which sets outs conditions for the safe use of the chemical.

It is an offence to manufacture or import a new industrial chemical without an assessment certificate or permit (maximum penalty $33,000).\(^11\)

Existing industrial chemicals

Existing chemicals are those chemicals which are already available for use in Australia. They are listed on the Australian Inventory of Chemical Substances.\(^12\) The Inventory contains around 40,000 industrial chemicals. The Inventory contains chemical identity data. It does not contain information on toxicity, use, manufacturers or importers. It consists of a non-confidential (public) section and a confidential section.

Due to the large number of existing chemicals, NICNAS cannot provide an assessment for each chemical. NICNAS therefore assesses existing chemicals on a priority basis depending on whether the chemical poses any adverse health or environmental risks.\(^13\) NICNAS can also revisit completed assessments if new data becomes available.\(^14\)

NICNAS makes recommendations on how existing chemicals can be used safely in Priority Existing Chemicals assessment reports.\(^15\) Chemicals which have been assessed by NICNAS are identified on the Inventory by the ‘Assessed by NICNAS’ flag.

Any person or organisation with concerns about the environmental, occupational or public health effects of an industrial chemical can nominate a chemical for assessment at any time.

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\(^8\) *Industrial Chemicals (Notification and Assessment) Act 1989* (NSW), s. 5 definition of ‘new industrial chemical’.


\(^10\) *Industrial Chemicals (Notification and Assessment) Act 1989*, s 31.


\(^12\) *Industrial Chemicals (Notification and Assessment) Act 1989*, Part 2, s 11.

\(^13\) *Industrial Chemicals (Notification and Assessment) Act 1989* (Cth), s. 50B.

\(^14\) *Industrial Chemicals (Notification and Assessment) Act 1989* (Cth), s. 68A.

\(^15\) *Industrial Chemicals (Notification and Assessment) Act 1989* (Cth), s. 60F.
Importers and manufacturers must be registered

People who import and/or manufacture industrial chemicals for commercial purposes must be registered with NICNAS – regardless of the quantity of industrial chemicals manufactured or imported.\textsuperscript{16}

Enforcement

Any person, including the Minister, can apply for an injunction in the Federal Court to prevent a breach of the law.

Pesticides

Pesticides are widely used to control pests on crops and in buildings.

They include things such as:

- Bactericides (e.g. swimming pool chemicals containing chlorine)
- Baits (e.g. for foxes, wild dogs, rabbits and insects)
- Fungicides (e.g. to treat mould on fruit trees)
- Herbicides (e.g. to kill weeds, such as glyphosate)
- Insecticides (e.g. aphids, moths, fruit flies, locusts, including flea powders)
- Lures (e.g. food-based lures)
- Rodenticides (e.g. mice and rats)
- Repellents (e.g. personal insect repellents)
- Genetically modified organisms (e.g. cotton modified to resist bollworm).

Pesticides include veterinary chemicals which are used to control external parasites on animals.\textsuperscript{17}

Registration and assessment of pesticides

There is a national scheme for the registration of pesticides. These types of chemicals must be assessed and registered by the Commonwealth Government before they can be sold.\textsuperscript{18}

\textsuperscript{16} \textit{Industrial Chemicals (Notification and Assessment) Act 1989} (Cth), Part 3A.
\textsuperscript{17} \textit{Pesticides Act 1999} (NSW), s. 5.
\textsuperscript{18} under the \textit{Agricultural and Veterinary Chemicals Act 1994} (Cth) (AGVET Act) and the \textit{Agricultural and Veterinary Chemicals Code Act 1994} (Cth) (AGVET Code).
The Federal Minister for Agriculture is responsible for administering pesticides, through the Department of Agriculture, Fisheries and Forestry.\textsuperscript{19}

**Australian Pesticides and Veterinary Medicines Authority**

The *Australian Pesticides and Veterinary Medicines Authority* (APVMA) is an independent statutory authority\textsuperscript{20} that is responsible for implementing the AGVET Act and the AGVET Code.

**Offence to possess or supply unregistered products**

As well as registering the chemical product itself, APVMA must approve a product’s active constituents and labels for chemical product containers.

It is an offence to possess or supply unregistered products or unapproved constituents.\textsuperscript{21}

Any person can bring proceedings for an injunction to enforce the law.\textsuperscript{22}

**National register for pesticides and vet chemicals**

Pesticides must be entered by APVMA on the [public Register of Agricultural and Veterinary Chemical Products](https://www.apvma.gov.au/) before they can be used.\textsuperscript{23}

All registered products are given a unique registration number which is printed on the bottom of the product label (e.g. APVMA Approval No XXX, or NRA Approval No XXX), along with the conditions of use.\textsuperscript{24}

If you are concerned about whether a pesticide is registered, you should call APVMA or you can search the [Registered Chemical Products Database](https://www.apvma.gov.au/chemicals/toxicology-pesticides/toxicology-pesticides). APVMA can issue recall notices requiring a person who has stocks of pesticides in their possession to stop supplying those products.\textsuperscript{25}

**Case study: APVMA can cancel registration of chemicals**

On 31 March 2003, the APVMA cancelled the registration of all marine paints containing the chemical tributyltin. It also prohibited the use of such products after 31 July 2003 following an international agreement to phase out that type of marine paint. The active ingredient was found to bioaccumulate in whales and other sea mammals and to disrupt the endocrine system of certain invertebrates.

\textsuperscript{19} Administrative Arrangements Order (18 September 2013) (Cth), Part 1.
\textsuperscript{20} Agricultural and Veterinary Chemicals (Administration) Act 1992 (Cth).
\textsuperscript{21} Agricultural and Veterinary Chemicals Code Act 1994 (Cth), Part 4 (Control of Chemical Products).
\textsuperscript{22} Agricultural and Veterinary Chemicals Code Act 1994 (Cth), s. 130.
\textsuperscript{23} Agricultural and Veterinary Chemicals Code Act 1994 (Cth), ss. 18, 20(2).
\textsuperscript{24} Agricultural and Veterinary Chemicals Code Act 1994 (Cth), ss. 20, 21.
\textsuperscript{25} Agricultural and Veterinary Chemicals Code Act 1994 (Cth), Part 6 (Recall notices).
Use of pesticides

The storage, use and disposal of pesticides in NSW is administered and enforced by the NSW Environment Protection Authority (EPA) with oversight of the NSW Environment Minister.

The EPA’s website has information on chemicals and pesticides.

Unregistered pesticides cannot be possessed or used, except with a permit or by certain persons. Registered pesticides must only be kept in approved containers bearing an approved label and must be used in accordance with the instructions on the label, and pesticides must only be used in a manner which avoids environmental harm.

Pesticide offences

It is an offence to wilfully or negligently use a pesticide in a manner:

- that injures, or is likely to injure another person or their property;
- that harms any non-target animal or non-target plant; or
- that materially harms a vulnerable, endangered or protected species.

The maximum penalty for a corporation is $250,000; and for an individual it is $120,000. There are similar, lesser offences for ‘misusing’ pesticides.

It is also an offence to:

- possess or use an unregistered pesticide without a permit;
- fail to read or explain the label on each occasion before using a registered pesticide;
- use a pesticide in contravention of the instructions on the label; or
- keep a registered pesticide in a container that does not have an approved label.

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26 Pesticides Act 1999 (NSW), ss. 12, 13.
27 Pesticides Act 1999 (NSW), ss. 14, 15, 16.
28 Pesticides Act 1999 (NSW), Division 3.
29 Pesticides Act 1999 (NSW), s. 7. This does not apply to damage caused ‘on-farm’.
30 Pesticides Act 1999 (NSW), s. 8. This does not apply to damage caused ‘on-farm’.
31 Pesticides Act 1999 (NSW), s. 9.
32 Pesticides Act 1999 (NSW), ss. 10, 11.
33 Pesticides Act 1999 (NSW), ss. 12, 13.
34 Pesticides Act 1999 (NSW), s. 14.
35 Pesticides Act 1999 (NSW), s. 15.
36 Pesticides Act 1999 (NSW), s. 16.
Penalties up to $120,000 for a corporation, and up to $60,000 for an individual may be incurred for these offences.

Misuse of pesticides may also lead to an offence of polluting unless the use is permitted under a pollution licence.\(^\text{37}\)

**Enforcement**

The EPA can issue:

- a clean-up notice directing a person suspected of having caused any pesticide pollution to clean it up;\(^\text{38}\)
- a clean-up direction, given orally;\(^\text{39}\) or
- a prevention notice directing a person to stop using a pesticide in an environmentally unsatisfactory manner.\(^\text{40}\)

For more minor offences, where the facts are not in dispute, the EPA can issue a penalty notice for up to $1,500 which must be paid within 28 days from the date on which the notice was served, rather than commencing a prosecution.\(^\text{41}\)

Alternatively, the EPA can bring criminal proceedings to prosecute an offence.\(^\text{42}\) Only the EPA can bring criminal proceedings. Such proceedings are taken in a Local Court or before the Land and Environment Court.\(^\text{43}\)

A member of the public could bring civil proceedings to remedy or restrain a the law if the breach was likely to cause harm to the environment.\(^\text{44}\)

**Pesticide control orders**

The EPA can issue pesticide control orders which control the way in which certain restricted pesticides can be used.\(^\text{45}\)

Pesticide control orders cover things such as the use of 1080 baits for rabbits, feral pigs, wild dogs and foxes; endosulfan; aerial spraying; 1080 liquid concentrate; and the use of 1080 in livestock collars.

\(^\text{37}\) Protection of the Environment Operations Act 1997 (NSW), s. 120.
\(^\text{38}\) Pesticides Act 1999 (NSW), s. 19.
\(^\text{39}\) Pesticides Act 1999 (NSW), s. 21.
\(^\text{40}\) Pesticides Act 1999 (NSW), s. 24.
\(^\text{41}\) Pesticides Act 1999 (NSW), ss. 75, 78.
\(^\text{42}\) Pesticides Act 1999 (NSW), s. 73.
\(^\text{43}\) Pesticides Act 1999 (NSW), s. 71.
\(^\text{44}\) Protection of the Environment Operations Act 1997 (NSW), s. 253.
\(^\text{45}\) Pesticides Act 1999 (NSW), s. 38.
Pesticide Control (1080 Liquid Concentrate and Bait Products) Order 2008

1080 is a restricted pesticide in NSW. 1080 (pronounced ‘ten-eighty’) is the common name given to the poison, sodium fluoroacetate, that is used to control pest animals such as wild dogs, foxes, feral pigs and rabbits. Use of 1080 baits poses risks to the environment, particularly to wildlife and domestic animals which can be inadvertently poisoned.

On 6 August 2010 the Pesticide Control (1080 Liquid Concentrate and Bait Products) Order 2010 commenced. It was introduced in response to new 1080 products and to incorporate new methods of application.

Under the Order, only an Authorised Control Officer who has undergone specific training and obtained accreditation can supply, handle and use 1080 products.

If you intend to use 1080 pesticide, you must first read the PCO and the relevant schedule for the pest animal that you need to control.

The EPA has also produced a 1080 Bait User Guidance Factsheet on the 1080 PCO. The Factsheet contains the steps you need to take if you intend to use a 1080 pesticide. It includes guidelines on how to obtain 1080 baits, how to comply with the PCO, what to do after placing the baits and how to store them.

There are significant penalties for unauthorised use of 1080 or failing to comply with the PCO. The maximum penalty for an individual is $60,000 and $120,000 for a corporation.

For more information about pesticide control orders visit the EPA’s Pesticide Control Order webpage or call the EPA Environment Line on 131 555.

Aerial spraying

A pilot must hold a special pesticide rated licence, and the aircraft must have an aerial applicator licence, before engaging in aerial spraying. The EPA issues licences for aerial pesticide spraying.

The holder of an aircraft (pesticide applicator) licence must keep detailed records of each spray application, including the pesticide that was applied, the land on which it was applied, and the weather conditions at the time of application.

Aerial spraying equipment must not be attached to aircraft unless the aircraft is approved by the Civil Aviation Safety Authority for agricultural operations.

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46 Pesticides Act 1999 (NSW), s. 45.
47 Pesticides Act 1999 (NSW), s. 46.
48 Pesticides Act 1999 (NSW), s. 54.
A pilot is not allowed to discharge pesticide within a distance of 150 metres horizontally from the boundary of any dwelling, school, factory or other public place without prior written permission from the occupier of the premises (see Pesticide Control Order Air 1).

APVMA has also produced information on spray-drift management including how APVMA determines the size of no-spray zones when registering a pesticide, some standard operating principles and some standard risk scenarios.

**How can I make a complaint about the misuse of pesticides?**

Concerns about the misuse of pesticides or chemicals can be reported to the EPA Environment Line on 131 555. Reports can remain confidential.

When reporting a matter, you should try to include details such as:

- where the incident took place;
- when the incident occurred;
- what happened, what pesticide was used, how it was used, and what crop was involved;
- what the weather conditions were like; and
- who did it (an owner, occupier or contractor).

Photos, video or mobile phone recordings, and notes should be provided, if possible.

**Hazardous chemicals**

The use and disposal of hazardous chemicals in NSW is administered by the EPA.\(^{49}\)

The EPA has the power to control chemical wastes which are likely to be accumulated, dumped or abandoned, thus causing a threat to human health and the environment. For further information visit the EPA’s website.

**Chemical control orders**

If the EPA is concerned that a particular chemical substance is likely to be accumulated, dumped or abandoned, it can declare that substance to be a ‘chemical waste’.\(^{50}\)

Chemical control orders can be made for chemicals that have been declared as waste and for any other chemicals that are declared as environmentally

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\(^{49}\) under the Environmentally Hazardous Chemicals Act 1985 (NSW).

\(^{50}\) Environmentally Hazardous Chemicals Act 1985 (NSW), s. 10.
hazardous. A chemical control order can prohibit the use of a chemical, and can specify how the controlled chemical can be safely handled and disposed of.\textsuperscript{51}

Chemical control orders are usually made where controls on chemicals are required beyond those available under pollution laws (e.g. discharge limits under pollution licences, or labelling requirements).

The following chemical control orders are in place in NSW:

1. Chemical control order in relation to aluminium smelter wastes containing fluoride and/or cyanide (1986);
2. Chemical control order in relation to dioxin-contaminated waste materials (1986);
3. Organotin waste materials chemical control order (1989);\textsuperscript{52}
4. Polychlorinated biphenyl (PCB) chemical control order 1997;\textsuperscript{53} and
5. Scheduled chemical wastes chemical control order (2004).\textsuperscript{54}

**Licence to deal with environmentally hazardous waste**

A person must obtain a licence from the EPA if they wish to carry out an activity which is prohibited or restricted by a chemical control order.\textsuperscript{55} A licence applicant can appeal within 30 days\textsuperscript{56} to the Land and Environment Court against a refusal to grant a licence, or its conditions.\textsuperscript{57}

**Enforcement**

It is an offence to breach a chemical control order or a condition of a licence (the maximum penalty for corporations is $137,500; and for individuals it is $66,000).\textsuperscript{58}

\textsuperscript{51} Environmentally Hazardous Chemicals Act 1985 (NSW), ss. 11, 20, 21, 22.
\textsuperscript{52} Organotin waste is primarily generated by the shipping industry during the removal of antifouling paint containing organotin chemicals.
\textsuperscript{53} PCBs are present in products such as electrical transformers and light fittings. The Order requires they be phased out by 1 January 2009.
\textsuperscript{54} The Schedule to the Order lists 24 chemicals including organochlorine pesticides which are no longer registered for use, such as DDT, dieldrin and heptachlor.
\textsuperscript{55} Environmentally Hazardous Chemicals Act 1985 (NSW), s. 28.
\textsuperscript{56} Environmentally Hazardous Chemicals Regulation 2008 (NSW), cl. 8(2).
\textsuperscript{57} Environmentally Hazardous Chemicals Act 1985 (NSW), s. 39; Land and Environment Court Act 1979 (NSW), s. 17(f).
\textsuperscript{58} Environmentally Hazardous Chemicals Act 1985 (NSW), ss. 26, 32, 54. The EPA can issue a penalty notice with a fine of up to $1,500 (individual), or $5,000 (corporation) for breaching a chemical control order: Protection of the Environment Operations (General) Regulation 2009 (NSW), Schedule 6.
See our Fact Sheets on Pollution for more information on how pollution offences are enforced in NSW.\(^{59}\)

**Other legal mechanisms controlling the use of chemicals and pesticides**

**Pollution licensing**

A pollution licence may be required to authorise the use of chemicals are called ‘scheduled activities’.\(^{60}\)

Scheduled activities which relate to pesticide or chemical usage (and thus require a pollution licence from the EPA) include:

- chemical industries
- chemical storage facilities
- livestock intensive industries
- marinas and boat repair facilities
- mineral processing works
- petroleum works
- waste facilities.

See our Fact Sheets on Pollution for more information on pollution licensing.

**Public register**

The EPA is required to keep a public register\(^{61}\) of:

- All declared chemical wastes;\(^{62}\)
- All chemical control orders;\(^{63}\) and
- All licences.

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\(^{59}\) The Environmentally Hazardous Chemicals Act 1985 (NSW) is enforced through the processes established by the Protection of the Environment Operations Act 1997 (NSW).

\(^{60}\) Activities which require a pollution licence are listed in Schedule 1 of the Protection of the Environment Operations Act 1997 (scheduled activities).

\(^{61}\) Environmentally Hazardous Chemicals Act 1985 (NSW), s. 52.

\(^{62}\) A list of these can be found in the Historical notes at the end of the Environmentally Hazardous Chemicals Act 1985 (NSW).

\(^{63}\) A list of these can be found in the Historical notes at the end of the Environmentally Hazardous Chemicals Act 1985 (NSW) and on the EPA’s website.
Planning controls

Local environmental plans may contain restrictions on where an ‘offensive and hazardous industry’, such as a chemical facility, can be built.

**SEPP 33 – Hazardous and Offensive Development**

State Environmental Planning Policy 33 classifies developments as hazardous and offensive.

SEPP 33 requires an applicant for development consent for a potentially hazardous industry to carry out a preliminary hazard analysis. The SEPP also lists additional factors for a consent authority to consider when assessing a hazardous development, such as the hazard analysis, and any likely future use of the surrounding land.

**Designated development (EIS)**

‘Chemical industries’ and ‘chemical storage facilities’ over certain thresholds or located in environmentally sensitive areas are categorised as ‘designated development’.

Applications for designated developments must be accompanied by an environmental impact statement.

Any person (a third party) can challenge the merits of a development consent issued for designated development in the Land and Environment Court. See our Fact Sheet on the Land and Environment Court for more information about appeals in the Land and Environment Court.

**Contaminated land**

The misuse of chemicals or pesticides may result in land becoming contaminated.

Contaminated land is tightly regulated in NSW. See our Fact Sheet on Contaminated Land for more information.

**Common law remedies (damages)**

*Common law remedies (damages)*

It may be possible to obtain compensation (damages) for harm caused to a person or property by the use of chemicals or pesticides.

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64 *State Environmental Planning Policy 33 - Hazardous and Offensive Development*, cl. 12.
65 Designated developments are listed in Schedule 3 of the *Environmental Planning and Assessment Regulation 2000* (NSW).
66 *Environmental Planning and Assessment Act 1979* (NSW), s. 78A(8)(a).
You should seek medical and legal advice as soon as possible if you think you have been injured as a result of exposure to chemicals or pesticides.

See our Fact Sheet on Private Nuisance for more information

**Transport of dangerous goods**

There are uniform national requirements set out in the Australian Dangerous Goods Code for the classification, packaging, loading, consigning, marking and placarding of dangerous goods and vehicles.

Both the EPA and WorkCover are responsible for the regulation of dangerous goods. The EPA maintains a public register of drivers’ licences and vehicle licences.

**Glossary**

<table>
<thead>
<tr>
<th>Key to terms used in this Fact Sheet</th>
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<tbody>
<tr>
<td><strong>APVMA</strong> means the Australian Pesticides and Veterinary Medicines Authority</td>
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<tr>
<td><strong>Environment Minister</strong> means the NSW Minister for Environment</td>
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<tr>
<td><strong>EPA</strong> means the NSW Environment Protection Authority (an independent statutory body)</td>
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<tr>
<td><strong>Inventory</strong> means the Australian Inventory of Chemical Substances kept by NICNAS.</td>
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<tr>
<td><strong>NICNAS</strong> means the National Industrial Chemicals Notification and Assessment Scheme.</td>
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67 under the *Dangerous Goods (Road and Rail Transport) Act 2008* (NSW).