CLANDESTINE LABORATORIES AND PRECURSORS

KEY POINTS

- The trafficking of precursor chemicals used in illicit drug production is a global market in itself, with the range of chemicals used worldwide to produce illicit drugs—including amphetamine-type substances—increasing.
- Indicators of domestic illicit drug production provide a mixed picture.
  - The number of clandestine laboratories detected nationally decreased for the seventh consecutive reporting period in 2018–19, with the 308 detections this reporting period the lowest number of detections reported in the last decade.
  - The majority of laboratories detected nationally in 2018–19 continue to be addict-based (small scale) and located in residential areas.
  - While the proportion of clandestine laboratories manufacturing ATS (excluding MDMA) decreased over the last decade, they continue to account for the greatest proportion of national detections, with methylamphetamine the main drug produced.
  - The number of ATS (excluding MDMA) precursors detected at the Australian border continued to decrease in 2018–19. While the weight detected close to halved this reporting period from the record weight reported in 2017–18, the 2,621.3 kilograms detected this reporting period is the second highest weight on record.
  - Both the number and weight of MDMA precursors detected at the Australian border increased in 2018–19, but remain relatively low.

MAIN FORMS

Clandestine laboratories—commonly referred to as clan labs—are used to covertly manufacture illicit drugs or their precursors. Clandestine laboratories range from crude, makeshift operations using simple processes, to highly sophisticated operations using technically advanced processes, equipment and facilities. Irrespective of their size or level of sophistication, the corrosive or hazardous nature of many of the chemicals used in clandestine laboratories pose significant risks to the community. Many of the chemicals are extremely volatile and in addition to contaminating the laboratory premises, also contaminate the surrounding environment, including soil, water and air (EMCDDA & Europol 2016; UNODC 2016).

Drug manufacture carried out in clandestine laboratories may involve any or all of the following processes:

- Extraction—the active chemical ingredients are extracted from a chemical preparation or plant, using a chemical solvent to produce a finished drug or a precursor chemical. Examples of extraction include the extraction of precursor chemicals from pharmaceutical preparations, or the extraction of morphine from opium.
- Conversion—a raw or unrefined drug product is changed into a more sought-after product by altering the chemical form. Examples include converting cocaine base into cocaine hydrochloride or methylamphetamine base into crystalline methylamphetamine hydrochloride.
- Synthesis—raw materials are combined and reacted under specific conditions to create the finished product through chemical reactions. Synthetic drugs such as methylamphetamine, 3,4-methylenedioxymethylamphetamine (MDMA) and lysergic acid diethylamide (LSD) are created through this process.
- Tableting—the final product is converted into dosage units. An example is pressing MDMA powder into tablets.

There are three types of substances used in illicit drug manufacture:

- Precursors—considered the starting materials for illicit drug manufacture. Through chemical reactions, the precursor's molecular structure is modified to produce a specific illicit drug. For example, precursors such as ephedrine (Eph) and pseudoephedrine (PSE) are converted to methylamphetamine.
- Reagents—substances used to cause a chemical reaction that modify the precursor's molecular structure. For example, when the reagent acetic anhydride is mixed with the precursor phenyl-2-propanone (P2P), the resulting compound is methylamphetamine.
- Solvents—added to the chemical mixture to ensure effective mixing by dissolving precursors and reagents, diluting the reaction mixtures, and separating and purifying other chemicals. For example, acetone and hydrochloric acid are used in heroin production (UNODC 2014).

The method of illicit drug manufacture employed is influenced by a number of factors, including the skill of the person and the availability of precursors. In Australia, amphetamine-type stimulants (ATS), specifically methylamphetamine, is the predominant drug manufactured in detected clandestine laboratories. The manufacturing methods and precursors used to manufacture ATS vary.

- The predominant processes used in Australia for manufacturing methylamphetamine are comparatively simple, using readily available basic equipment and precursor chemicals, with pseudoephedrine and ephedrine the most common precursors used.

- By comparison, MDMA manufacture is considered more complicated, requiring a greater knowledge of chemistry and use of precursor chemicals that are more difficult to obtain.

INTERNATIONAL TRENDS

Preventing the diversion of precursors, reagents and solvents for use in illicit drug manufacture is an effective and efficient way of limiting the supply of illicit drugs. As many of these substances have legitimate application within various branches of industry, controls must balance legitimate access with efforts to reduce diversion to the illicit market.

The trafficking of precursors, reagents and solvents used to produce illicit drugs is a global illicit market in itself and may involve diversion from licit channels and/or illicit manufacture. The illicit production of plant-based substances (primarily cocaine and heroin) rely on a number of known precursors, solvents and reagents used in common and well understood methods of production. In contrast, the illicit manufacture of synthetic drugs—in particular ATS—and the precursor chemicals used in its manufacture, is increasingly using a combination of old and newly developed techniques. The International Narcotics Control Board (INCB) identified two main developments in ATS manufacture and related global ATS precursor trafficking in 2018 and 2019:

- The increasing use and development of 'designer' precursors, namely substances that are close chemical relatives of controlled precursors. These can be converted into a precursor chemical and purposely developed to evade international controls. The INCB notes that while the trafficking of non-scheduled chemicals is not new, the sophistication, diversification and scale of illicit drug manufacturing (particularly of synthetic drugs) have outpaced international precursor control frameworks.
- The increasing use of P2P-based methods in the manufacture of ATS in regions where this method was not commonly used (for example in East and South East Asia where PSE/Eph-based methods have been more common historically; INCB 2019; INCB 2020).

This section will focus on ephedrines, potassium permanganate and acetic anhydride seizures reported by the INCB. These chemicals are under international control and are used in the manufacture of ATS, cocaine and heroin.

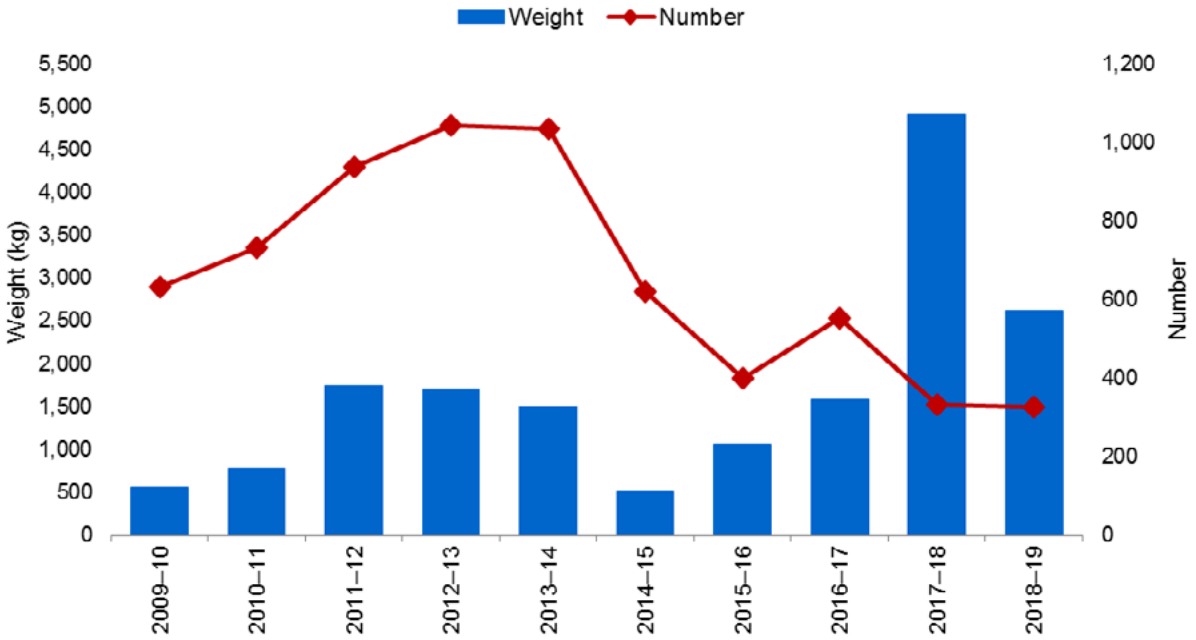
- Eph and PSE: 35 countries reported seizures in 2018, with the combined weight seized close to 40 tonnes. Seizures occurred in all regions of the globe. East and South East Asia accounted for the majority of reported seizures in 2018, including China (26 tonnes of raw Eph and Eph preparations and 908 kilograms of PSE) and the Philippines (more than 11 tonnes of Eph).
- Potassium permanganate: 17 countries reported seizures in 2018, totalling over 80 tonnes. While seizures of over one tonne (per country) were reported in 2018 by the Plurinational State of Bolivia, Bosnia and Herzegovina, Chile, China, Colombia and the Bolivarian Republic of Venezuela, the INCB reports that over 27 tonnes of potassium permanganate was seized in Colombia during the first six months of 2019.
- Acetic anhydride: 21 countries reported seizures in 2018, totalling 188,000 litres. China, Georgia, the Islamic Republic of Iran, the Netherlands, Pakistan and Turkey each reported seizures of more than 10,000 litres in 2018. The Islamic Republic of Iran alone reported seizures of 27,680 litres of acetic anhydride in 2018 (INCB 2020).

DOMESTIC TRENDS
AUSTRALIAN BORDER SITUATION

As ATS are the most common illicit drugs manufactured in domestic clandestine laboratories in Australia, this chapter focuses on ATS (excluding MDMA) and MDMA precursor detection data.

The number of ATS (excluding MDMA) precursor detections at the Australian border fluctuated over the last decade, decreasing 49 per cent from 632 in 2009–10 to 325 in 2018–19. This reporting period the number of detections decreased 2 per cent, from 332 in 2017–18. The weight of ATS (excluding MDMA) precursors detected also fluctuated over the last decade, increasing 371 per cent from 556.3 kilograms in 2009–10 to 2,621.3 kilograms in 2018–19—the second highest weight on record. The weight detected this reporting period decreased 47 per cent, from a record 4,912.4 kilograms in 2017–18 (see Figure 39).[84]

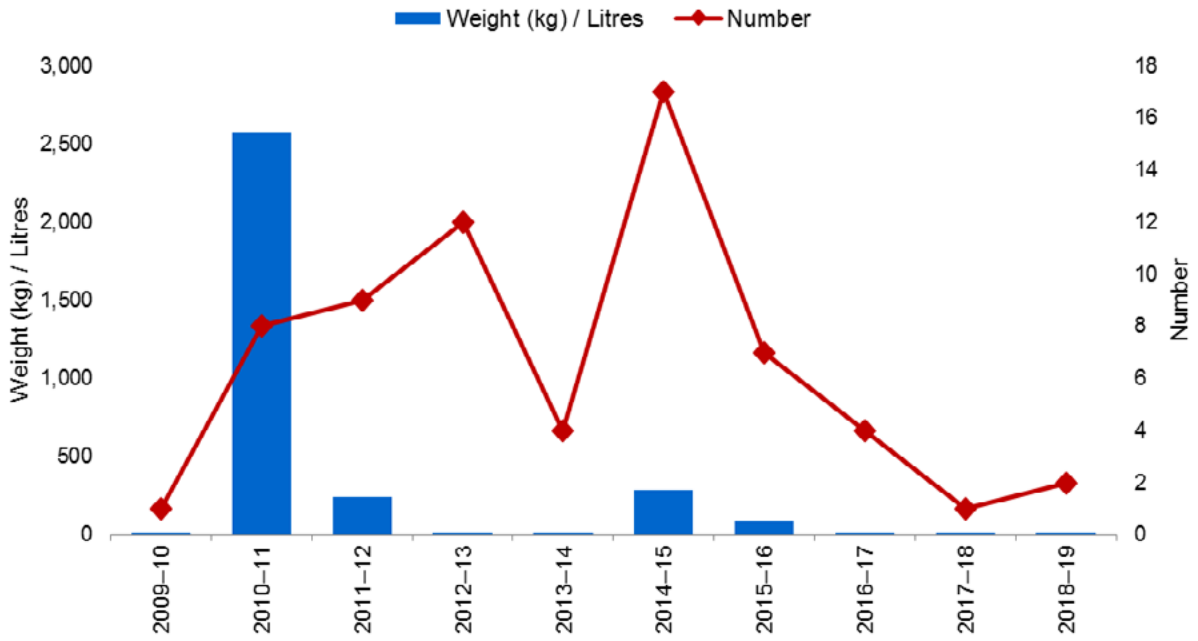
FIGURE 39: Number and weight of ATS (excluding MDMA) precursor detections at the Australian border, 2009–10 to 2018–19 (Source: Department of Home Affairs)



The number of MDMA precursor detections at the Australian border fluctuated over the last decade, but remain relatively low. A single detection of MDMA precursors was reported in both 2009–10 and 2017–18, which increased to 2 detections in 2018–19. The weight of MDMA precursors detected also fluctuated over the last decade, increasing 290 per cent from 100 grams in 2009–10 to 390 grams in 2018–19. This reporting period the weight detected increased 7,700 per cent, from 5.0 grams in 2017–18 (see Figure 40).

84 See Appendix 2 for significant ATS (excluding MDMA) precursor border detections in 2018–19.

FIGURE 40: Number and weight/litres[a] of MDMA precursor detections at the Australian border, 2009–10 to 2018–19 (Source: Department of Home Affairs)



a. Significant detections of MDMA precursors occur in both kilograms and litres. As this figure reflects two units of measurement, it is necessary to refer to 'Significant Border Detections' for individual reporting periods to determine the related unit of measurement.

IMPORTATION METHODS

In 2018–19, ATS (excluding MDMA) precursor border detections occurred in the air cargo, air passenger/crew, international mail and sea cargo streams. By number, the international mail stream accounted for 41 per cent of ATS (excluding MDMA) precursor border detections, followed by air passenger/crew (28 per cent), air cargo (28 per cent) and sea cargo (3 per cent). By weight, sea cargo accounted for the greatest proportion of ATS (excluding MDMA) precursor border detections (79 per cent), followed by air cargo (18 per cent), international mail (3 per cent), and air passenger/crew (<1 per cent).

In 2018–19, the two MDMA precursor border detections occurred in the air cargo and air passenger/crew streams.

EMBARKATION POINTS

By weight, China (including Hong Kong) was the primary embarkation point for ATS (excluding MDMA) precursor detections at the Australian border in 2018–19. Other key embarkation points by weight this reporting period include Malaysia, India, Taiwan, the United States (US), the United Kingdom, Italy, Canada, Indonesia and Singapore.

Vietnam was the primary embarkation point by weight for MDMA precursor detections in 2018–19, followed by the US.

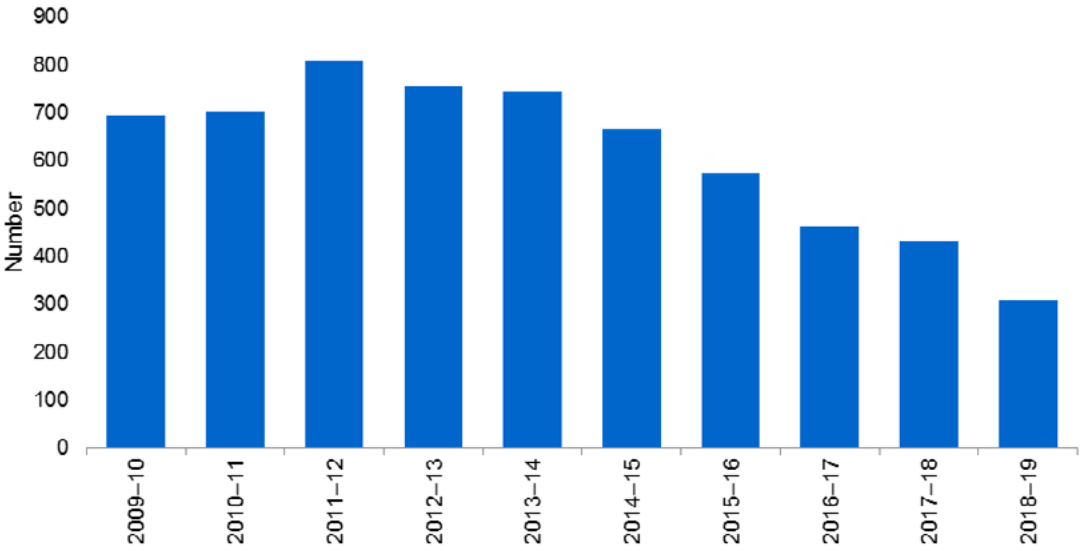
DOMESTIC MARKET INDICATORS

The number of clandestine laboratory detections is not indicative of production output, which is calculated using a number of variables including the size of reaction vessels, amount and type of precursors used, the skill of people involved and the method of manufacture.

CLANDESTINE LABORATORY DETECTIONS

The number of national clandestine laboratory detections in Australia decreased 56 per cent over the last decade, from 694 in 2009–10 to 308 in 2018–19—the lowest number of detections reported in the last decade. While the number of detections increased between 2009–10 and 2011–12, it decreased in every subsequent reporting period. This reporting period the number of clandestine laboratories detected nationally decreased 29 per cent, from 432 in 2017–18 (see Figure 41).

FIGURE 41: National clandestine laboratory detections, 2009–10 to 2018–19



All states and territories reported a decrease in the number of clandestine laboratories detected in 2018–19, with the exception of the Australian Capital Territory, which reported an increase in the number of detections and the Northern Territory, which remained stable (see Table 22). Victoria accounted for the greatest proportion of national clandestine laboratory detections in 2018–19 (30 per cent), followed by Queensland (26 per cent).

TABLE 22: Number of clandestine laboratory detections, by state and territory, 2009–10 to 2018–19

Year	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total
2009–10	82	113	297	71	118	1	12	0	**694**
2010–11	87	63	293	75	171	11	2	1	**703**
2011–12	90	99	379	58	160	15	7	1	**809**
2012–13	105	113	330	56	136	9	8	0	**757**
2013–14	98	114	340	80	96	5	11	0	**744**
2014–15	99	161	236	71	84	5	10	1	**667**
2015–16	83	144	234	69	40	1	3	1	**575**
2016–17	56	135	150	81	33	3	5	0	**463**
2017–18	86	98	141	78	25	2	2	0	**432**
2018–19	59	91	81	58	14	1	2	2	**308**

SIZE AND PRODUCTION CAPACITY

State and territory police services are asked to provide an indication of the size and production capacity of detected laboratories using categories provided by the United Nations Office on Drugs and Crime in their data collection for the World Drug Report. Full definitions for the four categories—addict-based, other small scale, medium scale and industrial scale—are found in the *Statistics* chapter.

In 2018–19, clandestine laboratories detected in Australia ranged from addict-based laboratories, which typically use basic equipment and simple procedures, through to industrial scale laboratories, using oversized equipment. For those able to be categorised, the majority of detected laboratories in Australia continue to be addict-based, though the proportion of laboratories attributed to this category decreased, from 53 per cent in 2017–18 to 47 per cent in 2018–19. The proportion of laboratories categorised as other small scale increased this reporting period, from 26 per cent in 2017–18 to 33 per cent in 2018–19, with the proportion of medium sized laboratories decreasing from 19 per cent in 2017–18 to 18 per cent in 2018–19. The proportion of industrial-scale laboratories remained relatively stable at 2 per cent this reporting period.

DRUG TYPES AND METHODS OF PRODUCTION

Over the last decade and of those able to be identified, clandestine laboratories manufacturing ATS (excluding MDMA) accounted for the greatest proportion of national detections, with methylamphetamine the main drug produced. The proportion of ATS (excluding MDMA) laboratory detections fluctuated over the decade, decreasing from 82 per cent in 2009–10 to 49 per cent in 2018–19. In 2017–18 the proportion was 46 per cent.

- The number of national ATS (excluding MDMA) laboratory detections decreased 30 per cent this reporting period, from 233 in 2017–18 to 164 in 2018–19. Victoria accounted for the greatest proportion of national ATS (excluding MDMA) laboratories (26 per cent), followed by Queensland (25 per cent) and New South Wales (24 per cent). With the exception of Tasmania, all state and territories reporting clandestine laboratory detections in 2018–19 reported ATS (excluding MDMA) production (see Table 23).

While fluctuating over the last decade, the proportion of MDMA laboratory detections remained stable at 2 per cent in 2009–10 and 2018–19. In 2017–18 the proportion was 4 per cent, the highest reported in the decade.

- The number of MDMA laboratory detections decreased 70 per cent this reporting period, from 20 in 2017–18 to 6 in 2018–19. This reporting period MDMA laboratories were detected in New South Wales (4), Queensland (1) and Victoria (1).

Over the last decade the proportion of cannabis oil extraction laboratories increased, from less than 1 per cent of national laboratory detections in 2009–10 to 5 per cent in 2018–19. In 2017–18, the proportion was 3 per cent.

- The number of cannabis oil extraction laboratory detections increased 6 per cent this reporting period, from 17 in 2017–18 to 18 detections 2018–19, the third highest number of detections since related reporting began in 2007–08. This reporting period cannabis oil extraction laboratories were detected in South Australia (12), Victoria (5) and New South Wales (1). The number of cannabis oil extraction laboratories detected in South Australia doubled this reporting period, from 6 in 2017–18 to 12 in 2018–19.

TABLE 23: Number of clandestine laboratory detections, by drug production type and state and territory, 2018–19

State/ Territory	ATS (excluding MDMA)	MDMA	Homebake heroin	Cannabis oil extraction	PSE extraction	GHB/ GBL	Other[a]	Unknown[b]	Total[c]
NSW	40	4	0	1	0	1	10	3	59
Vic	42	1	0	5	3	10	53	0	114
Qld	41	1	0	0	0	1	2	36	81
SA	31	0	0	12	1	6	1	11	62
WA	8	0	0	0	0	0	7	0	15
Tas	0	0	0	0	0	0	1	0	1
NT	1	0	0	0	0	0	0	0	1
ACT	1	0	0	0	0	0	1	0	2
Total	**164**	**6**	**0**	**18**	**4**	**18**	**75**	**50**	**335**

a. 'Other' refers to the detection of other illicit manufacture.
b. 'Unknown' includes seized substances which were unable to be identified or are awaiting analysis.
c. Total may exceed the number of clandestine laboratory detections due to multiple drug production types being identified in a single laboratory.

Over the last decade the proportion of gamma-hydroxybutyrate (GHB)/gamma-butyrolactone (GBL) laboratories increased, from zero detections in 2009–10 to 5 per cent of national clandestine laboratory detections in 2018–19. In 2017–18 this proportion was 4 per cent.

- The number of GHB/GBL laboratories decreased 18 per cent this reporting period, from a record 22 detections in 2017–18 to 18 in 2018–19, the second highest number of GHB/GBL laboratory detections on record. This reporting period GHB/GBL laboratories were detected in Victoria (10), South Australia (6), New South Wales (1) and Queensland (1).

While it fluctuated, over the last decade the proportion of clandestine laboratories extracting pseudoephedrine decreased, from 6 per cent of national laboratory detections in 2009–10 to 1 per cent in 2018–19. In 2017–18 this proportion was less than 1 per cent.

- The number of pseudoephedrine laboratories doubled this reporting period, from 2 detections in 2017–18 to 4 in 2018–19. This reporting period pseudoephedrine extraction laboratories were detected in Victoria (3) and South Australia (1).

Over the last decade the proportion of homebake heroin laboratories decreased, accounting for less than one percent of national laboratory detections in 2009–10 to no detections reported in both 2017–18 and 2018–19. There was a spike in detections in 2014–15, with homebake heroin laboratories accounting for 2 per cent of national laboratory detections in that reporting period.

Clandestine laboratories detected in Australia also manufacture a range of other illicit drugs, precursors and pre-precursors, as well as being used in extraction and recrystallization processes. The number of laboratories detected manufacturing other drugs increased 63 per cent this reporting period, from 46 in 2017–18 to 75 in 2018–19.

- In 2018–19, this included laboratories manufacturing P2P, dimethyltryptamine (DMT), steroids, psilocybin and methylamine. Ephedrine, hypophosphorous acid, iodine, piperonal, mescaline, cocaine and heroin extraction laboratories were also detected in 2018–19.

The hypophosphorous method of production continues to be the predominant method of ATS (excluding MDMA) manufacture in Australia (see Table 24). Over the last decade, the proportion of ATS (excluding MDMA) laboratories detected nationally using the hypophosphorous method of production increased, from 52 per cent in 2009–10 to 59 per cent in 2018–19. The number of laboratories detected using this method of production decreased 7 per cent this reporting period, from 103 in 2017–18 to 96 in 2018–19. Other trends observed in ATS (excluding MDMA) laboratory detections nationally over the last decade include:

- The proportion of detections identified as using the red phosphorous method decreased, from 11 per cent in 2009–10 to 7 per cent of detections in 2018–19. The number of laboratories detected decreased 42 per cent this reporting period, from 19 in 2017–18 to 11 in 2018–19.
- The proportion of detections identified as using the Nazi/Birch method decreased, from 23 per cent in 2009–10 to 6 per cent in 2018–19. The number of laboratories detected decreased 38 per cent this reporting period, from 16 in 2017–18 to 10 in 2018–19.
- The proportion of detections identified as using the P2P method remained relatively stable at 2 per cent in 2009–10 and 3 per cent in 2018–19. The number of laboratories detected decreased 73 per cent this reporting period, from 11 in 2017–18 to 3 in 2018–19.
- The proportion of detections identified as using other methods of ATS (excluding MDMA) production increased, from 11 per cent in 2009–10 to 27 per cent in 2018–19. The number of laboratories detected decreased 17 per cent this reporting period, from 53 in 2017–18 to 44 in 2018–19.

In 2018–19, New South Wales accounted for the greatest proportion of the number of hypophosphorous laboratories detected nationally (40 per cent). Queensland accounted for the greatest proportion of red phosphorous laboratory detections (36 per cent), while Victoria accounted for all P2P laboratory detections this reporting period. Western Australia accounted for the greatest proportion of Nazi/Birch laboratory detections in 2018–19 (60 per cent).

TABLE 24: Method of ATS (excluding MDMA) production in clandestine laboratory detections, by state and territory, 2018–19

State/ Territory	Hypophosphorous	Red-phosphorus	Nazi/Birch	Phenyl-2-propanone (P2P)	Other[a]	Total[b]
NSW	38	2	0	0	0	40
Vic	30	3	4	3	2	42
Qld	13	4	0	0	24	41
SA	14	1	0	0	16	31
WA	1	0	6	0	1	8
Tas	0	0	0	0	0	0
NT	0	1	0	0	0	1
ACT	0	0	0	0	1	1
Total	**96**	**11**	**10**	**3**	**44**	**164**

a. 'Other' includes the detection of other ATS (excluding MDMA) production methods.
b. Total may not equal the number of ATS (excluding MDMA) clandestine laboratory detections as the method of production may not be identified or the detection is awaiting analysis.

SIGNIFICANT PRECURSOR SEIZURES

This section provides a snapshot of the identification and/or seizure of some significant quantities of precursors, reagents and solvents (by weight) this reporting period:

Ephedrine

- 207.50 kilograms in South Australia
- 5.50 kilograms in Victoria
- 1.05 kilograms in New South Wales.

Hypophosphorous acid

- 0.21 kilograms in Queensland
- 0.16 kilograms in Queensland.

Iodine

- 287.00 kilograms in South Australia
- 250.00 kilograms in New South Wales
- 250.00 kilograms in New South Wales
- 25.00 kilograms in Victoria
- 7.30 kilograms in South Australia
- 0.49 kilograms in Queensland
- 0.40 kilograms in Queensland
- 0.33 kilograms in Queensland

- 0.24 kilograms in Queensland
- 0.19 kilograms in Queensland
- 0.10 kilograms in Queensland.

Pseudoephedrine

- 5.00 kilograms in New South Wales
- 9,360 tablets in New South Wales.

Red phosphorous

- 0.01 kilograms in the Northern Territory.

Other

- 138.69 kilograms of MDP2P/PMK in New South Wales
- 108.00 kilograms of methyl-2-phenyl-aceto-acetate in Victoria
- 100.00 kilograms of methylamine in Victoria
- 89.94 kilograms of safrole in New South Wales
- 13.00 kilograms of MDP2P/PMK in New South Wales
- 10.00 kilograms of GABA in South Australia
- 6.00 kilograms if GABA in South Australia
- 5.00 kilograms of sodium 2-methyl-3-phenyl glycidate in Victoria
- 3.00 kilograms of GABA in South Australia.

This section provides a snapshot of the identification and/or seizure of some significant quantities of precursors, reagents and solvents (by volume) this reporting period:

Benzaldehyde

- 2.00 litres in Victoria.

Hypophosphorous acid

- 220.00 litres in South Australia
- 27.00 litres in Victoria
- 23.00 litres in New South Wales
- 3.05 litres in South Australia.

Piperonal

- 0.20 litres in the Australian Capital Territory.

1,4-butanediol

- 200.00 litres in Western Australia.[85]

Other

- 1,000.00 litres of tetrahydrofuran in Victoria
- 8.00 litres of benzaldehyde in South Australia.

85 This 200.0 litre seizure of 1,4 butanediol (1,4-BD) was the largest of several seizures of 1,4-BD in Western Australia this reporting period, which totalled 375.0 litres.

LOCATION AND CATEGORY

The majority of clandestine laboratories detected in Australia continue to be located in residential areas—though the proportion of clandestine laboratories detected in residential areas decreased this reporting period, from 71 per cent in 2017–18 to 69 per cent in 2018–19. Clandestine laboratories located in commercial and industrial areas accounted for the second largest proportion of national detections this reporting period (10 per cent, an increase from 4 per cent in 2017–18), followed by laboratories detected in vehicles (9 per cent, a decrease from 10 per cent in 2017–18), rural areas (5 per cent, a decrease from 7 per cent in 2017–18) and other locations (remained relatively stable at 5 per cent).

- Several jurisdictions (Queensland, Victoria, and South Australia) reported detections of laboratories in hotels/motels or other short-term rental accommodation in 2018–19.

Based on their operating status, there are four distinct categories of clandestine laboratories:

- Category A—active (chemicals and equipment in use)
- Category B—stored/used (equipment and chemicals)[86]
- Category C—stored/unused (equipment and chemicals)
- Category D—historical site.

Consistent with previous reporting periods, for those able to be categorised, Category C was the most common category for clandestine laboratories detected nationally, accounting for 44 per cent of laboratories in 2018–19, a decrease from 47 per cent in 2017–18. This was followed by Category B, which remained relatively stable at 33 per cent this reporting period (32 per cent in 2017–18), Category D which accounted for 12 per cent (a decrease from 13 per cent in 2017–18) and Category A, which accounted for 12 per cent (an increase from 8 per cent in 2017–18).

NATIONAL TABLET PRESS SEIZURES

The number of tablet presses seized nationally decreased 42 per cent this reporting period, from 31 in 2017–18 to 18 in 2018–19. The 18 national tablet press seizures this reporting period comprised 16 single station/simple presses and 2 rotary presses. In 2018–19, seizures were made in New South Wales (6), Victoria (6), South Australia (2), Queensland (1), Tasmania (1), the Northern Territory (1) and the Australian Capital Territory (1).

The number of encapsulators seized nationally doubled this reporting period, from 5 in 2017–18 to 10 in 2018–19 and is the highest number reported since 2011–12 (13). The 10 encapsulators were seized in New South Wales (4), South Australia (3), Victoria (1), Western Australia (1) and the Northern Territory (1).

86 Laboratories which are fully assembled, but not active at the time of detection.

NATIONAL IMPACT

The trafficking of precursor chemicals used to produce illicit drugs is a global market in itself, and the range of chemicals used worldwide in illicit drug production is increasing.

Indicators of domestic drug production provide a mixed picture. These include border detection, seizure, clandestine laboratory, tablet press and encapsulator data.

- In 2018–19, the number of ATS (excluding MDMA) precursors detected at the Australian border decreased slightly. While the weight detected close to halved this reporting period, it is the second highest weight on record.
- In 2018–19, both the number and weight of MDMA precursors detected at the Australian border increased—though the number and weight of detections are comparatively small.
- The number of clandestine laboratories detected nationally in 2018–19 decreased for the seventh consecutive reporting period. The 308 laboratories detected this reporting period is the lowest number of detections reported in the last decade.
- Clandestine laboratories in Australia manufacture and process a range of illicit drugs, precursors and pre-precursors.
  - In 2018–19, this included ATS (excluding MDMA), MDMA, GHB/GBL, DMT, P2P, steroids, psilocybin and methylamine, as well as ephedrine, hypophosphorous acid, iodine, piperonal, mescaline, cocaine and heroin extraction laboratories.
  - While decreasing over the last decade, clandestine laboratories manufacturing ATS (excluding MDMA) continue to account for the greatest proportion of national detections, with methylamphetamine the main drug produced in 2018–19.
- The hypophosphorous method of production remains the predominant method of ATS (excluding MDMA) production in Australia.
- Clandestine laboratories detected in Australia range from addict-based through to industrial scale laboratories.
  - The majority of laboratories detected nationally in 2018–19 continue to be addict-based and located in residential areas—though the proportion of other small scale and industrial-scale laboratories increased from 2017–18.
  - The majority of laboratories continue to relate to the detection of stored/unused equipment or chemicals (Category C). While active laboratories (Category A) were the least detected category this reporting period, the proportion of active laboratories detected increased in 2018–19.
- In 2018–19, 18 tablet presses and 10 encapsulators were seized nationally.

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