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Managing Chemicals of Security Concern Across the Nursery & Garden Industry Supply Chain

The Council of Australian Governments has identified 11 chemicals that are considered high-risk because they can be used to make homemade explosives. Australian governments in partnership with industries have developed a voluntary National Code of Practice for Chemicals of Security Concern to provide information and guidance on minimising the risk of these chemicals falling into the wrong hands.

In this month's Nursery Paper, NGIA Research & Market Development Manager, Dr Anthony Kachenko provides an overview of the voluntary code as well as existing industry resources to manage chemicals of security concern across the nursery & garden industry supply chain.

Managing Chemicals of Security Concern Across the Nursery Industry Supply Chain

A large and diverse number of chemicals are used in fertilisers and pesticides and for other horticultural applications by members of the nursery & garden industry supply chain on a regular basis. Of these chemicals, a small percentage can be used for unlawful purposes, which includes lethal homemade bombs and terrorist attack.

Australian intelligence and law enforcement agencies have identified 96 chemicals as being attractive for these unlawful purposes. A full list of these 'Chemicals of Security Concern' can be viewed at www.chemicalsecurity.gov.au. These chemicals include chlorine, which is commonly used to disinfest irrigation water in production nurseries, and hydrochloric acid which is commonly used in production nurseries as an effective neutralisation agent for alkaline irrigation water. Other chemicals on this list and used by members of the nursery & garden industry supply chain include hydrogen peroxide and nitric acid (at a concentration of 30% or higher).

Eleven of these 96 chemicals have undergone a risk assessment and deemed as being particularly high risk because they have been identified as precursors to homemade explosives. These 11 chemicals include hydrogen peroxide and nitric acid.

For these chemicals, Australian governments in partnership with industries have developed a voluntary National Code of Practice. It is important to note that although this Code of Practice applies to the 11 chemical precursors to homemade explosives; it could apply to any of the 96 chemicals of security concern in the near future.

A key part of the voluntary Code is common sense and good business practice. The voluntary Code aims to promote effective chemical security management practices throughout the chemical supply chain from manufacture and distribution through to retail and use. Indeed, all members of the nursery & garden industry supply chain that handle chemicals, irrespective of the risk they may pose to a business and the wider Australian community, should be aware of the voluntary Code.

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Objective of the Voluntary National Code of Practice
The Voluntary National Code of Practice has three key objectives to:

1. Protect against the diversion of chemicals for terrorist and criminal purposes.
2. Encourage cooperation between businesses and organisations that handle chemicals and law enforcement agencies on chemical security matters.
3. Educate and train staff to be alert to warning signs and report suspicious activity.

How can I use the voluntary Code?
The voluntary Code is not about making it harder to access chemicals, but rather, about users keeping an eye out for anything suspicious. Nursery & Garden Industry Australia (NGIA) and several other industry Associations were engaged in the development of the voluntary Code to ensure it didn't create unnecessary hurdles or excessive red tape for industry.

Several practical measure are detailed in the voluntary Code that can be implemented without spending too much time or money, to reduce the likelihood that chemicals will be diverted or misused for terrorist or criminal activities. Indeed, many of these measures support those listed within the Nursery Production Farm Management System (FMS) and the Australian Garden Centre Accreditation Scheme (AGCAS).

Nursery Production FMS
The Nursery Industry Accreditation Scheme Australia (NIASA) – Best Management Practices is the cornerstone of industry best practice in production nurseries, greenlife markets and growing media manufacturers. This third party audited industry program is voluntary and includes guidance and support from an experienced team of technical officers operating regionally across Australia.

Section 1.2.4 of these guidelines details industry best practice on storing and using chemicals as well as information on appropriate record keeping.

Building on from NIASA is EcoHort, which promotes best practices in environmental and natural resource management. This industry program is also voluntary and like NIASA, is third party audited by an experienced team of technical officers. Section 3 calls for business to be aware of legislative requirements affecting them. In addition to this, Section 5.2 provides further detailed information on using pesticides and chemicals responsibly including safe storage and disposal. For example, EcoHort stipulates that pesticides and chemicals should be stored in a lockable, weatherproof, fire-proof and well-ventilated area.

Both NIASA and EcoHort should be considered a necessary part of good business practice by all production nurseries, greenlife markets and growing media manufacturers across Australia. These programs incorporate years of industry and international research to ensure businesses engaged with these programs are up-to-date with world's best practice.

AGCAS
This voluntary third party audited business improvement program for retail garden centres also contains pertinent information on safe retailing of chemicals and associated products. For example, these guidelines request that relevant chemicals and associated products are stored to meet the statutory requirements of state and territory legislation. Like NIASA and EcoHort, AGCAS should be considered an integral component of good business practice in all retail garden centres.

Security Risk Management
The following information is part of good business practice and should be integrated into business culture and philosophy across all members of the Australian nursery industry supply chain.

Assign Responsibility
Security management within the business should be assigned to a person(s) to undertake the following tasks:

- Introduce and maintain security measures based on threat and risk and ensure compliance with relevant legislation.
- Establish relationships with government agencies and others (where applicable) to address security issues.
- Develop and manage reporting systems.
- Assist in raising employee security awareness.
- Include security in employer and contractor training and induction.

In addition to the above, it is vitally important that suspicious incidents and security breaches are investigated and reported to the **National Security Hotline 1800 1234 00**. These incidents may be internal or external to your business. Examples of suspicious incidents could include:

- Unauthorised entry into restricted areas such as chemical sheds.
- Unexplained losses of chemicals.
- Unexplained disruptions to business processes.
- Major cyber-attack on internal process controls or inventory systems.

Unusual behaviour in purchasing chemicals should also be regarded as a suspicious incident, such as attempts to purchase chemicals for no clear purpose.

Security Measures

A suite of security measures are listed within the voluntary Code. Some of the key measures that should be considered by members of the nursery & garden industry supply chain are summarised in table 1.

Table 1: Examples of recommended security measures and for whom such measures are likely to be relevant.

Measure	Suggested Actions	Relevant To
Employee and contractor checking	• Basic background checking prior to and during employment • Educate staff on security issues and controls • Verify identity and referee information and follow up on anomalies	Manufacturer, Importer, Processor, Transport/Logistics, Wholesaler, Retailer, End User (Business)
Personnel security awareness	• Educate staff on potential misuse of chemicals being handled in induction and on-going training and provide clear instructions for reporting suspicious activity	Manufacturer, Importer, Processor, Transport/Logistics, Wholesaler, Retailer, End User (Business)
Physical access	• Install deterrent signage • Require visitors to sign in • Control access to keys to secure areas	Manufacturer, Importer, Processor, Transport/Logistics, Wholesaler, Retailer, End User (Business)
Personnel access	• Restrict access to authorised personnel • Always escort or monitor visitors and contractors	Manufacturer, Importer, Processor, Wholesaler, Retailer, End User (Business)
Point of sale procedures	• Only sell to customers with known identity and verified legitimate use • Report suspicious transactions (including unusual or different sales to account customers)	Manufacturer, Importer, Processor, Wholesaler, Retailer
Sale and distribution procedures	• Only sell to customers with known identity and verified legitimate use • Report suspicious transactions (including unusual or different sales to account customers) • Do not leave chemicals unattended at point of delivery	Manufacturer, Importer, Processor, Wholesaler, Retailer
Transporting chemicals of security concern procedures	• Ensure chemicals are secure at all times during transport • Do not leave vehicles unattended • Use secure parking for loads in transit • Monitor the location of vehicles transporting chemicals	Manufacturer, Importer, Processor, Transport/Logistics, Wholesaler, Retailer, End User (Business)

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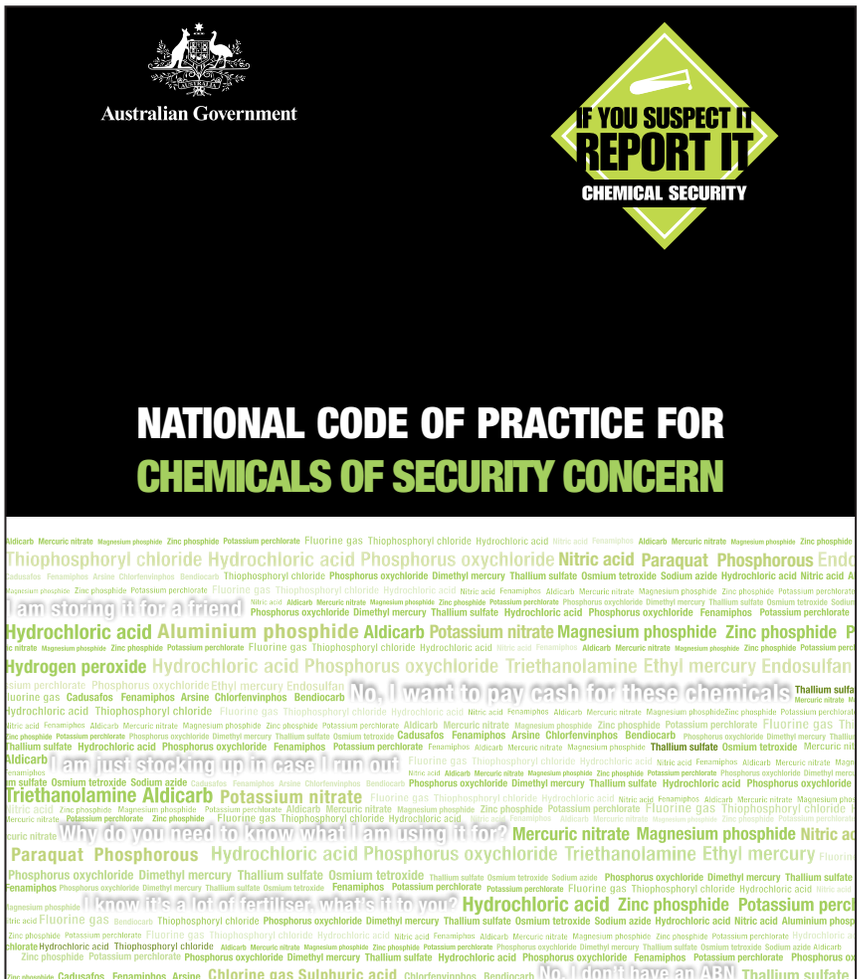
Conclusions
The examples of security measures indicate that it is important to have an open and trustworthy relationship with supply chain partners. This is vital in order to share safety and security advice, expertise, resources and to foster awareness of chemical security.
The following six tips are important consideration for you to secure your chemicals:

1. Adopt industry best practice through NIASA, EcoHort and AGCAS programs
2. Ensure prospective, seasonal or casual employees are trustworthy
3. Limit access to your chemicals
4. Lock your chemicals up when they aren't being used
5. Keep track of your chemicals
6. Educate and train your staff to be aware of suspicious behaviours

If you suspect it, report it to the **National Security Hotline on 1800 1234 00 or hotline@nationalsecurity.gov.au**



Further Information

More resources on assessing, identifying and addressing your security risks, including the National Code of Practice for Chemicals of Security Concern and guidance materials are available on the chemical security website: www.chemicalsecurity.gov.au

References

Commonwealth of Australia (2013) National Code of Practice for Chemicals of Security Concern, Australian Government, Canberra www.chemicalsecurity.gov.au

Further Information

For additional information, consult the following nursery papers which are all available electronically from www.ngia.com.au

- **What is NIASA and how can it benefit you?** Issue Number 3. May 2008.
- **EcoHort™ - the environmental management system for Australian nursery production**. Issue Number 12. December 2006.
- **The benefits of being professional - accreditation**. Issue Number 1. February 2003.
- **NIASA Greenlife Market Accreditation**. Issue Number 2. March 2011.

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