

# New Zealand's National Implementation Plan under the Stockholm Convention on Persistent Organic Pollutants

## Addendum relating to endosulfan

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## **Part 1: Introduction**

#### **Summary**

This addendum updates New Zealand's National Implementation Plan under the Stockholm Convention on Persistent Organic Pollutants, published in December 2006 (New Zealand's NIP) to include endosulfan.

New Zealand has comprehensive legal measures in place prohibiting the use, manufacture and import of technical endosulfan and its related isomers (endosulfan).

All approvals to use, manufacture or import endosulfan, and products containing endosulfan, were revoked with effect from January 2009 – two years prior to endosulfan being listed in Annex A of the Stockholm Convention on Persistent Organic Pollutants (Stockholm Convention). New Zealand has never applied for the specific exemption relating to endosulfan.

#### **Background**

Information on the Stockholm Convention, persistent organic pollutants, and the role of the Ministry for the Environment can be found on pages 1-2 of New Zealand's NIP.

The Parties to the Stockholm Convention adopted a decision listing endosulfan in Annex A to the Convention in May 2011. Along with many other Parties, the endosulfan listing entered into force for New Zealand on 27 October 2012.

This addendum is designed to be read alongside New Zealand's NIP, and provides additional information on the implementation of the endosulfan listing in New Zealand. It is not designed to be a complete update of New Zealand's NIP. Work is currently underway to undertake a comprehensive update of New Zealand's NIP including information on the policies and measures in place to prohibit use of the nine new POPs listed in the Stockholm Convention in 2009.

#### Contact point

Any enquiries on New Zealand's NIP and/or this addendum should be addressed to: The Manager, International Climate and Environment, Ministry for the Environment, PO Box 10362, Wellington 6143, New Zealand (email: Stockholm@mfe.govt.nz; phone +64 4 439 7400; Fax +64 4 439 7705).

# Part 2: New Zealand's Response to the Articles of the Stockholm Convention

# Article 3: Eliminate Releases from the Intentional Production and Use of POPs

Information on Article 3 and the history of organochlorine pesticide use in New Zealand can be found on pages 8-9 of New Zealand's NIP.

#### History of endosulfan use in New Zealand

Endosulfan was imported into New Zealand and used from 1963 to 2009 as an insecticide on a variety of crops including certain vegetable, citrus and berry fruit crops, and on ornamentals. It was also used as earthworm control on turf at golf courses, bowling clubs, parks, sports grounds, and at airports. Endosulfan has never been manufactured in New Zealand.

Four products using emulsifiable concentrate formulations containing 350 g/l endosulfan were approved and available in New Zealand in 2009. No endosulfan formulations were marketed for domestic use and aerial application of endosulfan did not take place in New Zealand.

There is evidence that endosulfan use in New Zealand was in decline prior to 2009. The total endosulfan market in New Zealand was estimated at approximately 15,000 to 20,000 litres of product (approximately 5 to 7 tonnes of endosulfan at 350 g/l concentration) per year in 2007.

#### Legal measures taken to comply with Article 3

Information on legal measures taken to comply with Article 3, including an overview of the Hazardous Substances and New Organisms Act 1996 and the Imports and Exports (Restrictions) Act 1988, can be found on pages 10-12 of New Zealand's NIP.

In New Zealand, the use, import and manufacture of endosulfan and products containing endosulfan is controlled by a reassessment decision of the Environmental Risk Management Authority New Zealand (the Authority) under the Hazardous Substances and New Organisms Act 1996 (HSNO Act 1996). The reassessment conducted by the Authority (consistent with Article 3(4) of the Stockholm Convention) prohibited any further use, importation or manufacture of endosulfan and revoked all existing approvals.

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See page 2 of the reassessment decision of the Environmental Risk Management Authority New Zealand. Available at http://www.epa.govt.nz/search-databases/Pages/default.aspx (Reference HRC7003).

The Authority's decision came into effect on 16 January 2009 (28 days after publication of Hazardous Substances (Endosulfan Direction Prohibiting Use and Storage Disposal Control) Notice 2008 (Notice) in the New Zealand Gazette.<sup>2</sup> The Notice imposed controls on the disposal of endosulfan stocks and required total disposal by 16 January 2010.

The reassessment decision was entrenched in New Zealand legislation in 2011,<sup>3</sup> and regulations were amended to prohibit the import and export of endosulfan except as permitted in the Stockholm Convention and in compliance with the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention).<sup>4</sup>

Registrations for endosulfan-based products under the Agricultural Compounds and Veterinary Medicines Act 1997 were also revoked in January 2009 and prohibited in 2011.<sup>5</sup>

See table 1 (page 6 below) for a summary of legal measures taken.

#### **Article 4: Register of Specific Exemptions**

New Zealand has not registered for the specific exemption for the production and use of endosulfan.

#### **Article 6: Stockpiles and Wastes**

Information on Article 6 can be found on page 13 of New Zealand's NIP.

#### Activities to manage stockpiles of POP pesticides

Information on activities to manage stockpiles of POP pesticides can be found on pages 17-19 and 23 of New Zealand's NIP.

Under the conditions set in the Hazardous Substances (Endosulfan Direction Prohibiting Use and Storage Disposal Control) Notice 2008 (Notice) any endosulfan in New Zealand must be stored in suitable containers and kept in buildings and places which are:

- a) Secure and suitable for the purpose taking into account the quantities stored, moisture control ventilation and spill containment; and
- b) Sited so that the risk of contamination to people, animals, crops and the environment is minimised.

<sup>&</sup>lt;sup>2</sup> The New Zealand Gazette is the official newspaper of the New Zealand Government.

<sup>&</sup>lt;sup>3</sup> Hazardous Substances and New Organisms (Schedules 1AA and 2A) Order 2011 (SR 2011/255).

<sup>&</sup>lt;sup>4</sup> Imports and Exports (Restrictions) Prohibition Order (No 2) 2004 Amendment Order 2011 (SR 2011/25).

Agricultural Compounds and Veterinary Medicines (Exemptions and Prohibited Substances) Regulations 2011 (SR 2011/327).

Table 1: Summary of Article 3 obligations and legal measures taken to eliminate the production and use of endosulfan

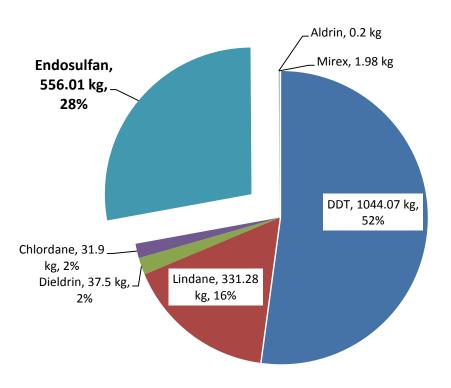
Relevant Article 3 obligations	Status (✓ = achieved)	Legal measures
Article 3.1(a): Prohibit and/or take the legal and administrative measures to eliminate production and use, and import/export, of the chemicals listed in Annex A (except under Article 3.2).	•	The HSNO Act 1996 prohibits the production, use and import of endosulfan.  Agricultural Compounds and Veterinary Medicines (Exemption and Prohibited Substances) Regulations 2011 prohibits endosulfan use as an agricultural compound.  The Imports and Exports (Restrictions) Prohibition Order (No. 2) 2004 prohibits exports of endosulfan (except as provided under Article 3.2).
Article 3.2(a): Import Annex A chemicals only: (i) for environmentally sound disposal (see Article 6.1(d)); or (ii) for use as permitted to New Zealand under Annex A.	1	The HSNO Act 1996 and the Imports and Exports (Restrictions) Prohibition Order (No. 2) 2004 allow the import of endosulfan only for environmentally sound disposal.
Article 3.2(b): Export Annex A chemicals only:  i. For environmentally sound disposal (see Article 6.1(d) reinforced by Article 3.2(c); or  ii. To a party that is permitted to use that chemical under Annex A; or  iii. To a state not party to this Convention meeting annual certification conditions.		The Imports and Exports (Restrictions) Prohibition Order (No. 2) 2004 prohibits the export of endosulfan except as provided under Article 3.2.  Endosulfan and wastes containing endosulfan for export require an export permit which must be consistent with the Basel, Stockholm, and Rotterdam Conventions.

Endosulfan may only be disposed of in New Zealand by:

- a) Treating the substance<sup>6</sup> using a method that changes the characteristics or composition of the substance so that the substance or any product of such treatment is no longer a hazardous substance; or
- b) Exporting the substance from New Zealand as waste for environmentally sound disposal (provided that such export complies with the relevant requirements of the Basel Convention and OECD Decision C(2001)107 on the Control of Transboundary Movement of Wastes Destined for Recovery Operations).

Efforts to collect and destroy residual organochlorine pesticide stocks (including those containing endosulfan) in New Zealand have continued following publication of New Zealand's NIP in 2006. The accredited voluntary product stewardship scheme Agrecovery Rural Recycling Programme (Agrecovery) collected 556 kilograms of products containing endosulfan for destruction in 2010 to 2013.<sup>7</sup>

Figure 1: Products containing POPs collected in the Agrecovery Chemical Programme 2010-2013



<sup>&</sup>lt;sup>6</sup> 'Treating the substance' does not include (a) application to or discharge to any environmental medium; (b) dilution of the substance with any other substance before discharge into the environment; (c) depositing the substance in a landfill or a sewage facility; or (d) depositing the substance in an incinerator unless in doing so the substance is treated in accordance with subclause (1)(a) of the Notice. See paragraph 6(2) of the Notice.

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<sup>&</sup>lt;sup>7</sup> See figure 1. Data provided by Agrecovery Rural Recycling Programme.

#### **Activities to manage POP-contaminated land**

Information on activities to manage POP-contaminated land in New Zealand can be found on pages 19-23 of New Zealand's NIP.

The New Zealand National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCS) came into effect on 1 January 2012. The NESCS ensures that land affected by contaminants in soil (which could include endosulfan) is appropriately identified and assessed before it is developed. If necessary the NESCS requires that land is remediated or the contaminants are contained to make the land safe for human use.

# Article 10: Public Information, Awareness and Education

Information on public information, awareness and education can be found on pages 26-27 of New Zealand's NIP.

New Zealand Gazette Notices relating to endosulfan are available to the public at <a href="https://gazette.govt.nz/">https://gazette.govt.nz/</a>>.

The endosulfan reassessment decision of the Environmental Risk Management Authority New Zealand is available to the public at <a href="http://www.epa.govt.nz/search-databases/Pages/default.aspx">http://www.epa.govt.nz/search-databases/Pages/default.aspx</a>> (Reference HRC07003).

Environmental Risk Management Authority Monitoring Report to the Minister for the Environment: Monitoring the Effectiveness of the Hazardous Substances and New Organisms Act 1996 is available to the public at <a href="http://www.epa.govt.nz">http://www.epa.govt.nz</a>>.

Public information on the voluntary Agrecovery scheme can be found at <a href="http://www.agrecovery.co.nz/">http://www.agrecovery.co.nz/</a>>.

Public information on endosulfan and food safety can be found at <a href="http://www.foodsmart.govt.nz/whats-in-our-food/chemicals-nutrients-additives-toxins/agricultural-production/endosulfan/">http://www.foodsmart.govt.nz/whats-in-our-food/chemicals-nutrients-additives-toxins/agricultural-production/endosulfan/</a>.

Public information on the New Zealand Government's food monitoring programmes can be found at <a href="http://www.foodsafety.govt.nz/policy-law/food-monitoring-programmes/overview.htm">http://www.foodsafety.govt.nz/policy-law/food-monitoring-programmes/overview.htm</a>>.

Concentrations of Selected Persistent Organic Pollutants (POPs) in the Serum of New Zealanders A report for the Ministry of Health, Wellington, Prepared by the Centre for Public Health Research, Massey University, Wellington is available to the public at <a href="http://publichealth.massey.ac.nz/">http://publichealth.massey.ac.nz/</a> (Technical Report No. 34, 4 October 2013).

Concentrations of Persistent Organic Pollutants in the Milk of New Zealand Women: Prepared as part of a Ministry of Health contract for scientific services is available to the public at <a href="http://publichealth.massey.ac.nz/home/research/research-projects/the-investigation-of-breast-milk-for-persistent-organic-pollutants/">http://publichealth.massey.ac.nz/home/research/research-projects/the-investigation-of-breast-milk-for-persistent-organic-pollutants/</a> (29 July 2010).

## Article 11: Research, Development and Monitoring

Information on research, development and monitoring can be found on pages 28-31 of New Zealand's NIP.

Endosulfan is routinely tested for in the New Zealand Government's food residue monitoring programmes, including the Food Residue Surveillance Programme and the National Chemical Contaminants Programme.

Monitoring conducted under the Food Residue Surveillance Programme in 2009 identified a decrease in endosulfan residues in domestic food (following the Authority's reassessment). Endosulfan has not been identified in testing under the Food Residue Surveillance Programme since 2011.

Monitoring under the National Chemical Residues Programme and National Chemical Contaminants Programme has showed no endosulfan residues in animal products since the Authority's reassessment in 2009.

The New Zealand POPs biological monitoring programme included monitoring of endosulfan in the serum of adult New Zealanders for the first time in 2013. The level of endosulfan was found to be below detection limits.

#### **Article 15: Reporting**

New Zealand's second National Report under the Stockholm Convention (submitted on 31 August 2014) contains reporting information on endosulfan.