

New Zealand Standard

Testing and decontamination of methamphetamine-contaminated properties

NZS 8510:2017

COMMITTEE REPRESENTATION

This standard was prepared by the P8510 Committee. The membership of the committee was approved by the New Zealand Standards Approval Board and appointed by the New Zealand Standards Executive under the Standards and Accreditation Act 2015.

The committee consisted of representatives of the following nominating organisations:

Analytica Laboratories	Insurance Council of New Zealand
Andy Andersons Industrial Services	International Accreditation NZ (IANZ)
Auckland Council	Local Government New Zealand
Cleaning Systems Ltd	MethSolutions Ltd
Contaminated Site Solutions Ltd	Ministry for the Environment
Environmental Science and Research	Ministry of Health
Forensic and Industrial Science Ltd	New Zealand Property Investors' Federation
Hill Laboratories	NZ Decontamination Services T/A Fresh Living
Housing New Zealand Corporation	NZ Remediation Services
Hutt City Council	Real Estate Institute of New Zealand
Independent Property Managers' Association	

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AMENDMENTS

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NZS 8510:2017

New Zealand Standard

**Testing and
decontamination of
methamphetamine-
contaminated properties**

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REFERENCED DOCUMENTS

Reference is made in this document to the following:

New Zealand standards

NZS ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories¹

Joint Australian/New Zealand standards

AS/NZS 4308:2008 Procedures for specimen collection and the detection and quantitation of drugs of abuse in urine

AS/NZS ISO/IEC 17020:2013 Conformity assessment – Requirements for the operation of various types of bodies performing inspection²

International standard

ISO/IEC 17000:2004 Conformity assessment – Vocabulary and general principles

Other publications

Fowles, J, Deyo, J, and Kester, J. *Review of remediation standards for clandestine methamphetamine laboratories: Risk assessment recommendations for a New Zealand standard*. Wellington: Institute of Environmental Science and Research Ltd (ESR), 2016. Retrieved from www.health.govt.nz/publication/review-remediation-standards-clandestine-methamphetamine-laboratories-risk-assessment (26 June 2017).

Martyny, J W. *Methamphetamine sampling variability on different surfaces using different solvents*. Denver, Colorado: National Jewish Medical and Research Center, 2008.

Ministry of Health. *Guidelines for the remediation of clandestine methamphetamine laboratory sites*. Wellington: Ministry of Health, 2010.

National Institute for Occupational Safety and Health (NIOSH). 'Method No. 9106: Methamphetamine and illicit drugs, precursors, and adulterants on wipes by liquid-liquid extraction.' In *Manual of analytical methods*. 5th ed. Cincinnati, Ohio: US Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, 2016.

National Institute for Occupational Safety and Health (NIOSH). 'Method No. 9109: Methamphetamine and illicit drugs, precursors, and adulterants on wipes by solid phase extraction.' In *Manual of analytical methods*. 5th ed. Cincinnati, Ohio: US Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, 2016.

National Institute for Occupational Safety and Health (NIOSH). 'Method No. 9111: Methamphetamine on wipes by liquid chromatography/mass spectrometry.' In *Manual of analytical methods*. 5th ed. Cincinnati, Ohio: US Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, 2016.

¹ Identical to and reproduced from ISO/IEC 17025:2005

² Identical to and reproduced from ISO/IEC 17020:2012

WorkSafe New Zealand. *Fact sheet: Protecting workers from the dangers of clandestine laboratories*. April 2015. Retrieved from www.worksafe.govt.nz/worksafe/information-guidance/all-guidance-items/clandestine-laboratories/clandestine%20laboratories.pdf (26 June 2017).

New Zealand legislation

Criminal Proceeds (Recovery) Act 2009

Health and Safety at Work Act 2015

Misuse of Drugs Act 1975

Other legislation

Code of Colorado Regulations, 6 CCR 1014-3, 2014, State Board of Health, Colorado

Websites

www.cdc.gov/niosh

www.legislation.govt.nz

www.mfe.govt.nz

RELATED DOCUMENTS

When interpreting this standard it may be helpful to refer to other documents, including but not limited to:

Australian Government. *Clandestine drug laboratory remediation guidelines*. 2011.

Ministry for the Environment. *Contaminated land management guidelines No. 5: Site investigation and analysis of soils*. 2011 revised draft. Wellington: Ministry for the Environment, 2011.

Minnesota Department of Health and Minnesota Pollution Control Agency (USA). *Clandestine drug lab general cleanup guidance*. St. Paul, Minnesota: Minnesota Department of Health, 2010.

Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011.

Virginia Department of Health (USA). *Guidelines for cleanup of residential property used to manufacture methamphetamine*. Richmond, Virginia: Virginia Department of Health, 2013.

LATEST REVISIONS

The users of this standard should ensure that their copies of the above-mentioned New Zealand standards are the latest revisions. Amendments to referenced New Zealand and joint Australian/New Zealand standards can be found on www.standards.govt.nz.

REVIEW OF STANDARDS

Suggestions for improvement of this standard will be welcomed. They should be sent to the Manager, Standards New Zealand, Private Bag 1473, Wellington 6140.

FOREWORD

The illicit manufacture and use of methamphetamine is having a major impact on communities and individuals throughout New Zealand. Methamphetamine production and use can contaminate properties and expose occupants, particularly young children, to potential health risks, and can result in property owners facing significant costs for testing and decontaminating properties, and replacing fixtures, fittings, and materials that cannot be decontaminated.

The purpose of this standard is to provide guidance on reducing people's risks of exposure to harm caused by the presence of unacceptable levels of methamphetamine contamination in properties including vehicles and caravans. It establishes decontamination levels to guide the decontamination of affected properties. It also sets out procedures for testing properties for contamination and the steps needed to decontaminate properties and dispose of any contaminated waste. Reference to this standard may be helpful in situations such as change of ownership or tenancy of properties, particularly properties where contamination by methamphetamine is known or suspected.

The standard addresses all sources of methamphetamine contamination, and aims to ensure consistency, reliability, and competency in activities including screening, sampling, testing, and, where necessary, decontaminating properties and disposing of contaminated materials.

This standard is intended to assist a wide range of stakeholders, and has been prepared with input from sampling and testing operators, decontamination contractors, property investment and property management interests, the insurance sector, local authorities, public health authorities, and laboratories. It identifies current good practice on activities, such as sampling, testing, and decontamination, and is a basis for reducing risks of harm from methamphetamine contamination.

After seeking expert advice on exposure risk from Environmental Science and Research Ltd (ESR) and the Ministry of Health, and reviewing a large number of public comments on a draft of this standard, the committee has decided to set the maximum acceptable level of methamphetamine in an affected property at $1.5 \mu\text{g}/100 \text{ cm}^2$ after decontamination. While this level is greater than the Ministry of Health 2010 guideline value of $0.5 \mu\text{g}/100 \text{ cm}^2$ for properties used as clandestine laboratories, there are a number of reasons why the committee decided to adopt the single value of $1.5 \mu\text{g}/100 \text{ cm}^2$ in this standard:

- (a) Other than by expert scientific opinion, it is currently not possible to determine whether or not a property has been used as a clandestine laboratory, based solely on the results of surface sampling;
- (b) What constitutes evidence of a clandestine laboratory may change as production techniques change;
- (c) Evidence of previous production may not be apparent except for the results of surface sampling, which alone cannot be used to determine if production occurred;
- (d) A level of $2.0 \mu\text{g}/100 \text{ cm}^2$ was not considered conservative enough by the authors of the ESR review for a clandestine laboratory site, and it was likely that some properties would be decontaminated to this level when in fact production of methamphetamine did occur but there was no clear evidence of production remaining on the property;

- (e) Carpets and soft furnishings can absorb and retain significant amounts of methamphetamine compared to other surfaces in a typical house;
- (f) For carpet and soft furnishings to be effectively sampled the process could be destructive and therefore likely to result in disposal of these items regardless;
- (g) No acceptable level for methamphetamine in carpet and soft furnishings is available, and these items pose an exposure risk to young children in particular;
- (h) ESR and the Ministry of Health acknowledge that a post-decontamination level of 1.5 µg/100 cm² or less is appropriate to minimise exposure risk to occupants including young children, because of safety factors already built into the ESR's October 2016 risk assessment and recommendations;
- (i) Any hazards from other contaminants resulting from processes used for producing methamphetamine on a property should be assessed separately, and any treatment of those hazards should be based on contaminant-specific guidelines.

NOTE – The single-level approach to decontamination replaces a three-level approach presented as an option in a draft of this standard that was released for public comment in December 2016. The committee considered that if three decontamination levels applied:

- (a) It would be unclear who would be responsible for determining which level should be used for a particular property and therefore hold the liability;
- (b) If left to individual companies to decide which clean-up level should be used, an inappropriate level could be applied due to inexperience and insufficient knowledge of the operator, and could be contested;
- (c) If left to individual property owners or stakeholders to decide which level should apply, economic considerations could result in an inappropriate level being adopted, and could be contested;
- (d) Having more than one decontamination level for a property that has not been a clandestine laboratory would be difficult to implement in practice as the level being referenced would continually change for a property as carpets and soft furnishings are removed and replaced.

During the development of this standard, the committee acknowledged that there are some provisions that will require a lead-in time to implement after this standard is published. Requirements such as accreditation of those who carry out sampling for detailed assessments, or recognised training courses for screening samplers or decontamination operators, may require some time to set up and implement. The committee recognises that there needs to be a transition phase to allow such arrangements to be put in place. However, the committee decided that it was important to clearly signal in this standard the committee's intention to ensure that those who work in the areas of methamphetamine testing and decontamination should have the necessary skills and experience to undertake the work and provide the level of service required by owners or managers of affected properties. Such improvements will help to increase confidence that both testing and decontamination of methamphetamine-contaminated properties meet the objectives of this standard.

In common with other standards, this standard will be reviewed from time to time to ensure that it remains relevant and meets its objectives. For example, if further research or developments reveal that changes are needed to address risks of exposure to methamphetamine contamination, or to acknowledge other methods of testing or decontamination of properties, then the standard could be reviewed and updated where necessary to reflect such changes.

Standards New Zealand appreciates the efforts of all those involved in developing this standard in a relatively short period of time in response to a strong demand for such guidance.

Initial funding to scope this project was provided by the Hutt City Council, and funding to develop the standard was granted later in 2015 under the Criminal Proceeds (Recovery) Act.

NOTES

New Zealand Standard

Testing and decontamination of methamphetamine-contaminated properties

1 GENERAL

1.1 Scope

This standard covers the screening, sampling, testing, and decontamination of properties that might have been contaminated as a result of the use or production of methamphetamine.

The standard includes:

- (a) Guidance on methods of screening, sampling, and testing of properties to assess the extent of methamphetamine contamination, ensuring that sampling is representative, that testing methods produce reliable and repeatable results, within known limits, whether using qualitative or quantitative methods, and that there is a consistent approach to reporting test results;
- (b) Measures to manage risks to health, well-being, safety, and the environment from methamphetamine-contaminated material and chemicals used to manufacture methamphetamine;
- (c) Good practice procedures and criteria for decontaminating methamphetamine-contaminated properties and their contents, and methods of disposing of materials that cannot be decontaminated;
- (d) Guidance on post-decontamination actions, including sampling and testing for the purpose of verifying whether decontamination of properties has been achieved and meets the appropriate limits in this standard;
- (e) Reporting and documentation requirements to confirm the decontamination of a property;
- (f) Information and certification that supports processes, such as validation or auditing, which provide assurance that screening, sampling, testing, risk assessment, decontamination of properties, and disposal of contaminated materials have been effective, and comply with this standard and any relevant local authority requirements.

NOTE – In some cases, a property owner may decide to demolish rather than decontaminate a property due to the extent of methamphetamine-related contamination and the costs of decontamination. This standard focuses on decontamination of affected properties and does not include criteria for deciding whether action other than decontamination is necessary.



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