

08/11/2018 Reference H2408

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Ruakura Research Centre, 10 Bisley Road,  
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Hamilton

To whom it may concern,

#### Arilon Insecticide

- Product description: pesticide, insecticide for control of cockroaches, ants, & house flies
- Product use: for food area crack & crevice application & outside the area (inside & outside domestic commercial, industrial & public buildings & factories, hospitals, homes, retailers and farm buildings)

**"Passed AsureQuality assessment for food/beverage/dairy farm & factory type C outside food areas or food area crack and crevice application with food & packaging removed (high concentration & care) H2408" with conditions.** This assessment was prepared by Global Proficiency Ltd using HACCP principles to determine equivalence with food standards listed below. See <http://assessedproducts.asurequality.com>. This supports food Risk Management Programmes & other endorsements that may apply to this product include MPI regulated farm dairy approval, MPI dairy factory endorsement, MPI regulated non-dairy animal product approvals, EPA HSNO-OSH-environment approval (& previously AQIS).

#### Conditions:

- Used per instructions, legislation, & GMP, no potential food contact - type C outside food areas or food area crack and crevice application with food & packaging removed (high concentration & care).
- Use per a control programme where applicable & where use does not create a nuisance.
- The assessment is subject to notification of change and expires on 08/11/2023.
- The full report is attached for supplier review and verification. The assessment is activated by countersigning & inclusion of assessment precautions / assessment statement / MPI dairy statement

Prepared by Global Proficiency for AsureQuality Ltd by  
Bob Hutchinson PhD SENIOR DEVELOPMENT SCIENTIST.



Supplier:..... Date:.....

#### Scope and purpose of the assessment:

- Asurequality assessment is a non-regulated, voluntary, and evidential certification by the supplier demonstrating equivalence with food safety standards, and also that product instructions address hazards for staff & equipment. The assessment is independently confirmed, without prejudice or guarantee, using information submitted by the supplier or from other sources. Confidentiality of the product formulation is maintained using coded **material identifiers** in the report, and appendices containing confidential information are provided only to the supplier.
- Scope: NZ checks (NICNAS AICS. FSANZ, US FDA 21 CFR/ NSF, Food Chemicals Codex, EPA NZ, EU, French culinary listings or related data for equivalent safety). NZ background (Animal Products Act, Risk Management Programmes. Detergent & Sanitiser Manufacturer's Code of Practice, Detergent & Sanitiser Standards and Analytical Methods. Quality Manual - Assessment Procedures

#### Summary of assessment with any risks highlighted:

- Prior registrations (Regulatory (NZFSA approved type D & Agriquality type C. Approved HSNO act HSR100291).
- Food safety (is by non-contact & lists for permitted pesticides actives etc. Purity & residue carryover are not necessarily required for non-contact).
- QA (ISO 9000 series certification etc n/a for non-contact).
- QC (Chemistry n/a for non-contact and and micro safety is by formulation).
- Instructions: -
  - Label (Warning keep out of reach of children. Arilon Insecticide. Contains 200 g/kg Indoxacarb water dispersible granules. For control of cockroaches, ants, & house flies in situations specified in Directions for use. Net 200 or 500 g, HSNO code HSR100291. Syngenta and emergency contacts. Read label & use only as directed. HSNO 6.1D, 6.9A, 9.1A, 9.3C & 9.4A. Warning harmful if swallowed, inhaled or absorbed through skin. May cause damage to hematopoietic system for repeat oral exposure at high dose. Very toxic to aquatic organisms. Harmful to terrestrial vertebrates. Very toxic to aquatic invertebrates. Precautions (Storage in original container away from food. Mixing clothing gloves eyes & footwear protection. Etc Application, storage & record keeping per Management of AgriChemicals NZS8409. Avoid contamination of water supply etc). First Aid list. Spills. General information list NZFSA approved type D & Agriquality type C. Directions for inside & outside domestic, commercial, industrial & public service buildings including factories, hospitals, homes, retail outlets, & farm buildings - this has use target & use rate details. Application details (Technical & rates and Avoid contact with food, food utensils & food preparation surfaces these items to be removed of covered prior to spraying. Any food items contaminated are discarded & washed. Cover fish tanks. Use rate list). Food / feed areas (Only as crack & crevice application. Includes all food areas. Apply into cracks & crevices using equipment designed to deliver a pin stream between different elements of construction (described)). Lists for Re-entry periods, compatibility, storage, SDS, Disclaimer).
  - SDS (Company & product identifiers completed. Hazards similar to label above. Composition (Inodoxcarb 20%, Kaolin 5-10%, & other ingredients to 100%. Lists for First Aid, Fire, Accident, Handling, Exposure controls (Kaolin CAS 1332-58-7 WES 10 mg/m<sup>3</sup>, & 2 mg/m<sup>3</sup> as respirable dust), Properties, Stability, Toxicology (was similar to label hazards + slight irritant + not mutagenic carcinogenic or reproduction effect & specific organ repeat exposure toxicant), Ecology, Transport & Regulatory HSR100291).
- Unwanted effects (Covered by label & SDS. Production side effects ok by non-contact & refer to residues vs MRLs in table etc).

- Efficacy (Is expected from the registrations of the active and efficacy report for fire ants)

**Contents (This is a simplified report with sections 2-11 replaced by a summary on p1 and in the table in section 1)**

0 Information is to be evidential (standard 0).	1 Materials safety and residues etc.
2 Material (other – function)	3 Quality assurance certificate
4 Purity (or Design, formulation, fabrication and finish).	5 Instructions
6 Freedom from apparent side effects	7 Efficacy or hygiene to meet food safety margins
8 Packaging safety.	9 Summary of submitted information etc.
10 Standards/References - front page/may be attached	11 Contacts.
12 Confidential information re design, formulation etc.	13 Covering letter & then 14 Raw material confidential information

**Risk Rating (failure/accident)**

	Chemical	Microbiological
Incidence	Low	Low
Susceptibility	Low	Low
Severity	Low	Low
Total	Low	Low

**Organics**

For organic production when food is absent during use and residues are rinsed etc. Reference NZS8410 Organic Production section 10 Storage, transport, preparation and handling. 10.1.2 Where the premises vehicles and equipment are used solely for organic products: (a) Only those substances used in table D1 shall be used for housekeeping purposes in the presence of the product (note that product absence is already a requirement of this assessment). If other materials are used for cleaning, surfaces that could come in contact with organic products shall be flushed with potable water prior to re-entry of organic products, and any airborne substance dispersed. (b) If there are products of more than one organic status (e. g. organic and in conversion to organic), the requirements of 10.1.3 shall be followed as if the higher status organic product were in the presence of products not complying with this standard. 10.1.3 (Note that If not dedicated to organics then the plan must state how there is no non-organics inclusion including “sealing, labelling, documentation”).

**Evaluation:** Note that Standards vs. submission-responses yield compliance status in each of the sections below.

**Nature of information**

**0 Standard: Assurance information is to be evidential/cross-registered/or ex accredited bodies (and approvals may need levels of independence for toxicity and efficacy).**

- Prior registrations (Regulatory (NZFSA approved type D & Agriquality type C. Approved HSNO act HSR100291).

**Raw materials:**

**1 Standard:**

**Raw materials are to be identified safe: traceably identified, non-toxic, and pure - depending on the level of contact. Raw materials are to be safe at residue levels with safety factors (simplified here eg per cross-registration of USFDA 21 CFR/ ANZF/ EU etc registrations factored for likely equivalence and recognising high 1.5 L milk consumption would have been required by FDA etc – refers to supplier confidential appendix but with identifiers excluded**

**Response**

(Syngenta Crop Protection Limited) Arilon Insecticide H2408 08-11-2018	Registrations column. Scope: NZ checks (NICNAS AICS/EPA NZ, FSANZ, US FDA 40 /21 CFR/ NSF, Food Chemicals Codex, EU, French culinary listings or related data for equivalent safety). NZ background (Animal Products Act, Risk Management Programmes. Detergent & Sanitiser Manufacturer’s Code of Practice, Detergent & Sanitiser Standards and Analytical Methods, & Quality Manual - Assessment Procedures	Purity column Scope: Purity column raw purities to be per FSANZ purity wanted (as ingredient etc) FCC7 2010-2011 with GMP indicators & FSANZ also (require Pb<2, As<1, Heavy metals <40 mg/kg). Purity column.
HACCP vs instructions	Instructions: label (Warning keep out of reach of children. Arilon Insecticide. Contains 200 g/kg Indoxacarb water dispersible granules. For control of cockroaches, ants, & house flies in situations specified in Directions for use. Net 200 or 500 g, HSNO code HSR100291. Syngenta and emergency contacts. Read label & use only as directed. HSNO 6.1D, 6.9A, 9.1A, 9.3C & 9.4A. Warning harmful if swallowed, inhaled or absorbed through skin. May cause damage to hematopoietic system for repeat oral exposure at high dose. Very toxic to aquatic organisms. Harmful to terrestrial vertebrates. Very toxic to aquatic invertebrates. Precautions (Storage in original container away from food. Mixing clothing gloves eyes & footwear protection. Etc Application, storage & record keeping per Management of AgriChemicals NZS8409. Avoid contamination of water supply etc). First Aid list. Spills. General information list NZFSA approved type D & Agriquality type C. Directions for inside & outside domestic, commercial, industrial & public service buildings including factories, hospitals, homes, retail	Application details (Technical & rates and Avoid contact with food, food utensils & food preparation surfaces these items to be removed of covered prior to spraying. Any food items contaminated are discarded & washed. Cover fish tanks. Use rate list). Food / feed areas (Only as crack & crevice application. Includes all food areas. Apply into cracks & crevices using equipment designed to deliver a pin stream between different elements of construction (described)). Lists for Re-entry periods, compatibility, storage, SDS, Disclaimer). SDS (Company & product identifiers completed. Hazards similar to label above. Composition (Indoxacarb 20%, Kaolin 5-10%, & other ingredients to 100%. Lists for First Aid, Fire, Accident, Handling, Exposure controls (Kaolin CAS 1332-58-7 WES 10 mg/m3, & 2 mg/m3 as respirable dust), Properties, Stability, Toxicology

	outlets, & farm buildings - this has use target & use rate details.	(was similar to label hazards + slight irritant + not mutagenic carcinogenic or reproduction effect & specific organ repeat exposure toxicant), Ecology, Transport & Regulatory HSR100291).
HACCP checklist vs other aspects	Prior registrations (Regulatory (NZFSA approved type D & Agricality type C. Approved HSNO act HSR100291). Food safety (is by non-contact & lists for permitted pesticides actives etc. Purity & residue carryover are not necessarily required for non-contact). QA (ISO 9000 series certification etc n/a for non-contact). QC (Chemistry n/a for non-contact and and micro safety is by formulation)	Unwanted effects (Covered by label & SDS. Production side effects ok by non-contact & refer to residues vs MRLs in table etc). Efficacy (Is expected from the registrations of the active and efficacy report for fire ants)
Formulation 100%.		
Raw 1 Active Ingredient	NZIoC search unreturned? AICS unreturned. ECHA Annex 6 report sighted. EPA designation "reduced risk" USMRLs 40CFR180.565 indoxacarb cattle fat 1.5 ppm, milk 0.15ppm, milk fat 4 ppm. NZFSA brassicas 0.5ppm, head lettuce 1ppm, pome fruits 0.5 ppm, ACVM Steward approval is for vegetables, for apples, pears and grapes. Brassicas to 0.5 ppm, lettuce 1ppm, pome fruits 0.5 ppm, and no entry for animals/milk. USAFDA Toxicity summary w/o concern 18/07/02, 40CFR part 185 food not found?	Codex 0.1, & milk fats 1 mg/kg and long list. Purity wanted (per column header). Purity found (Sufficient to ensure active level & otherwise not found or required)
Raw 2 dispersant	NZIoC unreturned. Homopolymers of classes contributing to this copolymer are listed as food contact surface components in USA C! CFR177 part B	Purity is uncritical as at no/low concentration & contact
Raw 3 wetting agent	NZIoC may be used as component under group standard only. Component 1 FSANZ food code 1.3.3.3 & 21CFR for making food contact surfaces. Component 2 21CFR food contact surface sanitiser and FSANZ food wash	Purity is uncritical as at no/low concentration & contact
Raw 4 defoamer	NZIoC HSR003268. FSANZ Food Code & 21CFR listed similarly to raw 3 above.	Purity is uncritical as at no/low concentration & contact
Raw 5 diluent	FSANZ Food Code 21CFR foodstuff	Purity is uncritical as at no/low concentration & contact
Raw 6 diluent	NZIoC may be used as single component under group standard. Ubritous & safe except for inhalation of crystalline material & some components in this class have 21CFR registrations	Purity is uncritical as at no/low concentration & contact
Raw 7 diluent	NZIoC may be used as single component under group standard. Similar to raw 6 above	Purity is uncritical as at no/low concentration & contact
Raw 8 diluent	FSANZ Food Code & 21CFR etc foodstuff	Purity is uncritical as at no/low concentration & contact
pH & pathogen implications are n/a here	pH growth ranges: B cereus 4.4-9.3, Campylobacter jejuni 4.9-9.0, C botulinum A & B 4.8-8.5 type E 5-8.5, C perfringens 5-8.9, Listeria monocytogenes 4.5-8.0, Salmonella 3.8-9,	Staph aureus 4.3-9.0, vibrio cholerae 6-11, vibrio parahaemolyticus 4.8-9, vibrio vulnificus 5-10, Yersinia enterocolitica 4.4-9.6

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- Food safety (is by non-contact & lists for permitted pesticides actives etc. Purity & residue carryover are not necessarily required for non-contact).

**12 The formulation in confidence follows & is not for public circulation n/a in this case**

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(Syngenta Crop Protection Limited) Arilon Insecticide H2408 08-11-2018	Registrations column. Scope: NZ checks (NICNAS AICS/EPA NZ, FSANZ, US FDA 40 /21 CFR/ NSF, Food Chemicals Codex, EU, French culinary listings or related data for equivalent safety). NZ background (Animal Products Act, Risk Management Programmes. Detergent & Sanitiser Manufacturer's Code of Practice, Detergent & Sanitiser Standards and Analytical Methods, & Quality Manual - Assessment Procedures	Purity column Scope: Purity column raw purities to be per FSANZ purity wanted (as ingredient etc) FCC7 2010-2011 with GMP indicators & FSANZ also (require Pb<2, As<1, Heavy metals <40 mg/kg). Purity column.
HACCP vs instructions	Instructions: label (Warning keep out of reach of children. Arilon Insecticide. Contains 200 g/kg Indoxacarb water dispersible granules. For control of cockroaches, ants, & house flies in situations specified in Directions for use. Net 200 or 500 g, HSNO code HSR100291. Syngenta and emergency contacts. Read label & use only as directed. HSNO 6.1D, 6.9A, 9.1A, 9.3C & 9.4A. Warning harmful if swallowed, inhaled or absorbed through skin. May cause damage to hematopoietic system for repeat oral exposure at high dose. Very toxic to aquatic organisms. Harmful to terrestrial vertebrates. Very toxic to aquatic invertebrates. Precautions (Storage in original container away from food. Mixing clothing gloves eyes & footwear protection. Etc Application, storage & record keeping per Management of AgriChemicals NZS8409. Avoid contamination of water supply etc). First Aid list. Spills. General information list NZFSA approved type D & Agriquality type C. Directions for inside & outside domestic, commercial, industrial & public service buildings including factories, hospitals, homes, retail outlets, & farm buildings - this has use target & use rate details.	Application details (Technical & rates and Avoid contact with food, food utensils & food preparation surfaces these items to be removed of covered prior to spraying. Any food items contaminated are discarded & washed. Cover fish tanks. Use rate list). Food / feed areas (Only as crack & crevice application. Includes all food areas. Apply into cracks & crevices using equipment designed to deliver a pin stream between different elements of construction (described)). Lists for Re-entry periods, compatibility, storage, SDS, Disclaimer). SDS (Company & product identifiers completed. Hazards similar to label above. Composition (Indoxacarb 20%, Kaolin 5-10%, & other ingredients to 100%). Lists for First Aid, Fire, Accident, Handling, Exposure controls (Kaolin CAS 1332-58-7 WES 10 mg/m <sup>3</sup> , & 2 mg/m <sup>3</sup> as respirable dust), Properties, Stability, Toxicology (was similar to label hazards + slight irritant + not mutagenic carcinogenic or reproduction effect & specific organ repeat exposure toxicant), Ecology, Transport & Regulatory HSR100291).
HACCP checklist vs other aspects	Prior registrations (Regulatory (NZFSA approved type D & Agriquality type C. Approved HSNO act HSR100291). Food safety (is by non-contact & lists for permitted pesticides actives etc. Purity & residue carryover are not necessarily required for non-contact). QA (ISO 9000 series certification etc n/a for non-contact). QC (Chemistry n/a for non-contact and and micro safety is by formulation)	Unwanted effects (Covered by label & SDS. Production side effects ok by non-contact & refer to residues vs MRLs in table etc). Efficacy (Is expected from the registrations of the active and efficacy report for fire ants)
Formulation 100%.		
Indoxacarb Technical Grade CAS 173584-44-6 Active Ingredient ( say 42.8% sufficient to provide active 200 g/kg from -, Raw 1 Active Ingredient	NZIoC search unreturned? AICS unreturned. ECHA Annex 6 report sighted. EPA designation "reduced risk" USMRLs 40CFR180.565 indoxacarb cattle fat 1.5 ppm, milk 0.15ppm, milk fat 4 ppm. NZFSA brassicas 0.5ppm, head lettuce 1ppm, pome fruits 0.5 ppm, ACVM Steward approval is for vegetables, for apples, pears and grapes. Brassicas to 0.5 ppm, lettuce 1ppm, pome fruits 0.5 ppm, and no entry for animals/milk. USAFDA Toxicity summary w/o concern 18/07/02, 40CFR part 185 food not found?	Codex 0.1, & milk fats 1 mg/kg and long list. Purity wanted (per column header). Purity found (Sufficient to ensure active level & otherwise not found or required)
Anionically modified styrene acrylic polymer (eg Metasperse 550S) CAS141370-38-9 from - 8% Raw 2 dispersant	NZIoC unreturned. Homopolymers of classes contributing to this copolymer are listed as food contact surface components in USA C! CFR177 part B	Purity is uncritical as at no/low concentration & contact
Mixture of alkyl carboxylate & alkylnaphthalene sulphonate eg Morwet EFW CAS105864-15-1 from - 0.5% Raw 3 wetting agent	NZIoC may be used as component under group standard only. Component 1 FSANZ food code 1.3.3.3 & 21CFR for making food contact surfaces. Component 2 21CFR food contact surface sanitiser and FSANZ food wash	Purity is uncritical as at no/low concentration & contact
Sodium tallowate eg Agnique soap CAS 8052-48-0 from - 0.5% Raw 4 defoamer	NZIoC HSR003268. FSANZ Food Code & 21CFR listed similarly to raw 3 above.	Purity is uncritical as at no/low concentration & contact
Sucrose CAS57-50-1 from - 1% Raw 5 diluent	FSANZ Food Code 21CFR foodstuff	Purity is uncritical as at no/low concentration & contact
Kaolin clay CAS1332-58-7 from - 7% Raw 6 diluent	NZIoC may be used as single component under group standard. Ubritous & safe except for inhalation of crystalline material & some components in this class have 21CFR registrations	Purity is uncritical as at no/low concentration & contact
Montmorillonite of bentonite clay CAS 1318-93-0 & 1302-78-0 from - 5% Raw 7 diluent	NZIoC may be used as single component under group standard. Similar to raw 6 above	Purity is uncritical as at no/low concentration & contact
Lactose monohydrate CAS5989-81-1 from - 35% Raw 8 diluent	FSANZ Food Code & 21CFR etc foodstuff	Purity is uncritical as at no/low concentration & contact
pH & pathogen implications are n/a here	pH growth ranges: B cereus 4.4-9.3, Campylobacter jejuni 4.9-9.0, C botulinum A & B 4.8-8.5 type E 5-8.5, C perfringens 5-8.9, Listeria monocytogenes 4.5-8.0, Salmonella 3.8-9,	Staph aureus 4.3-9.0, vibrio cholerae 6-11, vibrio parahaemolyticus 4.8-9, vibrio vulnificus 5-10, Yersinia enterocolitica 4.4-9.6

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08/11/2018 Reference H2408

Syngenta Crop Protection Limited, Tower 2, Level 7, 110  
Symonds Street, Auckland. 1010 Ph 61 2 88768562 Fax 61 2  
9332 6808. Contact Craig Hall [craig.hall@syngenta.com](mailto:craig.hall@syngenta.com) or  
accounts Michelle Hickman

Dear Craig Hall,

Global Proficiency Ltd for AsureQuality Ltd,  
Unit 2/25 Mareno Rd, (P O Box 1335)  
Tullamarine Vic 3043, Australia +61 3 9089  
1151  
Global Proficiency Ltd for AsureQuality Ltd,  
Ruakura Research Centre, 10 Bisley Road,  
Enderley, Hamilton 3241, P O Box 20474  
Hamilton

Please find attached your assessment report for any questions or suggestions and the invoice and later the web listing should follow. Thank you for the data supplied.

#### Arilon Insecticide

- Product description: pesticide, insecticide for control of cockroaches, ants, & house flies
- Product use: for food area crack & crevice application & outside the area (inside & outside domestic commercial, industrial & public buildings & factories, hospitals, homes, retailers and farm buildings)
- Status: passed renewed AsureQuality assessment for farm & factory use renewed \$280 for 1:45 hours O/N -

**"Passed AsureQuality assessment for food/beverage/dairy farm & factory type C outside food areas or food area crack and crevice application with food & packaging removed (high concentration & care) H2408" with conditions.** This assessment was prepared by Global Proficiency Ltd using HACCP principles to determine equivalence with food standards listed below. See <http://assessedproducts.asurequality.com>. This supports food Risk Management Programmes & other endorsements that may apply to this product include MPI regulated farm dairy approval, MPI dairy factory endorsement, MPI regulated non-dairy animal product approvals, EPA HSNO-OSH-environment approval (& previously AQIS).

#### Conditions:

- Used per instructions, legislation, & GMP, no potential food contact - type C outside food areas or food area crack and crevice application with food & packaging removed (high concentration & care).
- Use per a control programme where applicable & where use does not create a nuisance.
- The assessment is subject to notification of change and expires on 08/11/2023.
- The full report is attached for supplier review and verification. The assessment is activated by countersigning & inclusion of assessment precautions / assessment statement / MPI dairy statement

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