

SAFETY DATA SHEET

ARILON INSECTICIDE

Version

Revision Date:

SDS Number:

This version replaces all previous versions.

3.0

31.07.2021

S00027195080

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : ARILON INSECTICIDE

Design code : A20382A

Manufacturer or supplier's details

Company : Syngenta Australia Pty Ltd (ABN 33 002 933 717) www.syngenta.com.au

Address : 2-4 Lyonpark Road

Macquarie Park NSW 2113
Australia

Telephone : (02) 8014 5200

Emergency telephone number : 13 11 26 (Poison Information Centre)
1800 033 111 (Syngenta)

Telefax : (02) 8876 8446

Recommended use of the chemical and restrictions on use

Recommended use : Insecticide

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity (Oral) : Category 4

system) : Category 2 (Blood,

Specific target organ toxicity -
single exposure

Nervous system)

Specific target organ toxicity -
repeated exposure

GHS label elements

: Category 2 (Central nervous

Hazard pictograms :



Signal word : Warning

Hazard statements : H302 Harmful if swallowed.

H371 May cause damage to organs (Central nervous system).

H373 May cause damage to organs (Blood, Nervous system) through prolonged or repeated exposure.

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Precautionary statements : Prevention:

P260 Do not breathe dust.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

Response:

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.

P308 + P311 IF exposed or concerned: Call a POISON CENTER/ doctor.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards which do not result in classification

May form combustible dust concentrations in air.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
indoxacarb (ISO)	173584-44-6	>= 10 -< 30
kaolin	1332-58-7	< 10
sucrose, pure	57-50-1	< 10

SECTION 4. FIRST AID MEASURES

General advice : Have the product container, label or Safety Data Sheet with you when calling the emergency number, a poison control center or physician, or going for treatment.

If inhaled : Move the victim to fresh air.

If breathing is irregular or stopped, administer artificial respiration.

Keep patient warm and at rest.

Call a physician or poison control centre immediately.

In case of skin contact : Take off all contaminated clothing immediately. Wash off immediately with plenty of water.

If skin irritation persists, call a physician.

Wash contaminated clothing before re-use.

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Remove contact lenses.

Immediate medical attention is required.

If swallowed : If swallowed, seek medical advice immediately and show this container or label.

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effects, both acute and delayed

Do NOT induce vomiting.

: Nonspecific

No symptoms known or expected.

Most important symptoms and

Notes to physician : There is no specific antidote available.

Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Extinguishing media - small fires

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Extinguishing media - large fires

Alcohol-resistant foam

or

Water spray

Unsuitable extinguishing media

scatter and spread fire.

Specific hazards during fire fighting

: As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10).

Specific extinguishing methods

Exposure to decomposition products may be a hazard to health.

Special protective equipment for firefighters
: Do not use a solid water stream as it may

: Do not allow run-off from fire fighting to enter drains or water courses.

Cool closed containers exposed to fire with self-contained breathing apparatus.
water spray. : Wear full protective clothing and
Hazchem Code : 2Z

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8. Avoid dust formation.

Environmental precautions : Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up : Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).
Do not create a powder cloud by using a brush or compressed air.
Clean contaminated surface thoroughly.
Clean with detergents. Avoid solvents.
Retain and dispose of contaminated wash water.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : This material is capable of forming flammable dust clouds in

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air, which, if ignited, can produce a dust cloud explosion. Flames, hot surfaces, mechanical sparks and electrostatic discharges can serve as ignition sources for this material. Electrical equipment should be compatible with the flammability characteristics of this material. The flammability characteristics will be made worse if the material contains traces of flammable solvents or is handled in the presence of flammable solvents.

In general personnel handling this material and all conducting equipment should be electrically earthed or grounded. Bulk bags (FIBC) used to contain this material should be Type B, Type C or Type D. Type C bags must be electrically grounded or earthed before powder is charged to or discharged from the bag. If metal or fibre drums are used to contain this material, make certain the metal parts are bonded to the filling equipment and grounded.

This material can become readily charged in most operations.

Avoid contact with skin and eyes.
When using do not eat, drink or smoke.

For personal protection see section 8.
 Conditions for safe storage : Keep containers tightly closed in a dry, cool and well ventilated place.
 Keep out of the reach of children.
 Keep away from food, drink and animal feedingstuffs.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
indoxacarb (ISO)	173584-44-6	TWA	1 mg/m ³ (Respirable dust)	Supplier
kaolin	1332-58-7	TWA	10 mg/m ³	AU OEL
		TWA (Respirable particulate matter)	2 mg/m ³	ACGIH
sucrose, pure	57-50-1	TWA	10 mg/m ³	AU OEL
		TWA	10 mg/m ³	ACGIH

Engineering measures : THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THE PRODUCT. FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated.

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The extent of these protection measures depends on the actual risks in use.

Maintain air concentrations below occupational exposure standards.
Where necessary, seek additional occupational hygiene advice.

Personal protective equipment

Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Suitable respiratory equipment:

Respirator with a half face mask

The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self contained breathing apparatus must be used.

Hand protection

Material : Nitrile rubber

Break through time : > 480 min

Glove thickness : 0.5 mm

Remarks : Wear protective gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Eye protection : No special protective equipment required. Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Remove and wash contaminated clothing before re-use.

Wear as appropriate:

Dust impervious protective suit

Protective measures : The use of technical measures should always have priority over the use of personal protective equipment.

When selecting personal protective equipment, seek appropriate professional advice.

Personal protective equipment should comply with relevant national standards

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

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Appearance : solid

Colour : white

Odour : slight

Odour Threshold : No data available

pH : 8.1

Concentration: 1 % w/v

Melting point/range : No data available

Boiling point/boiling range : No data available

Flash point : No data available

Evaporation rate : No data available

Flammability (solid, gas) : May form combustible dust concentrations in air. Burning
number : 2 (20 °C)

Upper explosion limit / data available
Upper flammability limit

Lower explosion limit /
Lower flammability limit
: No data available : No

Vapour pressure : No data available Relative vapour

density : No data available Density : No data
available

Solubility(ies)

Water solubility : No data available Solubility in
other solvents : No data available

Partition coefficient: n : No data available
octanol/water

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Minimum ignition temperature : 400 °C

Viscosity

Viscosity, kinematic : No data available Explosive

properties : Not explosive

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Oxidizing properties : The substance or mixture is not classified as oxidizing. Minimum

ignition energy : 10 - 30 mJ

Particle size : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : None reasonably foreseeable.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions of normal use.

: No dangerous reaction known under conditions

Conditions to avoid : No decomposition if used as directed. Incompatible materials : None known.

Hazardous decomposition products are known.

: No hazardous decomposition products

SECTION 11. TOXICOLOGICAL INFORMATION

Exposure routes : Ingestion

Inhalation
Skin contact
Eye contact

Acute toxicity

Product:

Acute oral toxicity : LD50 (Rat, female): 1,909 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): > 4.8 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The component/mixture is minimally toxic after short term inhalation., The substance/mixture is not toxic on inhalation as defined by dangerous goods regulations.

Acute dermal toxicity : LD50 (Rat, male and female): > 5,000 mg/kg

Components:

indoxacarb (ISO):

Acute oral toxicity : LD50 (Rat): 268 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5.5 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rat): > 5,000 mg/kg

Assessment: The substance or mixture has no acute dermal toxicity

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Skin corrosion/irritation

Product:

Species : Rabbit

Result : No skin irritation

Components:

indoxacarb (ISO):

Result : No skin irritation

Serious eye damage/eye irritation

Product:

Species : Rabbit

Result : No eye irritation

Components:

indoxacarb (ISO):

Result : No eye irritation

Respiratory or skin sensitisation

Product:

Test Type : Maximisation Test

Species : Guinea pig

Result : Did not cause sensitisation on laboratory animals.

Components:

indoxacarb (ISO):

Result : May cause sensitisation by skin contact.

Chronic toxicity

Germ cell mutagenicity

Components:

indoxacarb (ISO):

Germ cell mutagenicity - Assessment

Carcinogenicity

Components:

indoxacarb (ISO):

: Animal testing did not show any mutagenic effects.

Carcinogenicity - Assess- : No evidence of carcinogenicity in animal studies.

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Components:

indoxacarb (ISO):

ment

Reproductive toxicity

Components:

indoxacarb (ISO):

Reproductive toxicity - Assessment

STOT - single exposure

: No toxicity to reproduction

Target Organs : Central nervous system

Assessment : The substance or mixture is classified as specific target organ toxicant, single exposure, category 2.

STOT - repeated exposure

Components:

indoxacarb (ISO):

Target Organs : Blood, Nervous system

Assessment : The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

indoxacarb (ISO):

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.65 mg/l Exposure time: 96 h
mg/l Exposure time: 48 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Lemna gibba (gibbous duckweed)): > 84.3 mg/l Exposure time: 14 d

Toxicity to algae/aquatic plants : NOEC (Oncorhynchus mykiss (rainbow trout)): 0.15 mg/l Exposure time: 90 d

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.09 mg/l Exposure time: 21 d
: EC50 (Daphnia magna (Water flea)): 0.6

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Persistence and degradability

Components:

indoxacarb (ISO):

Biodegradability : Result: Not readily biodegradable.

Bioaccumulative potential

Components:

indoxacarb (ISO):

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)
Bioconcentration factor (BCF): 950.3
Exposure time: 21 d

Mobility in soil

Components:

indoxacarb (ISO):
Distribution among environmental compartments : No data available
Remarks: No data available
Other adverse effects

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Do not contaminate ponds, waterways or ditches with chemical or used container.

Do not dispose of waste into sewer.

Where possible recycling is preferred to disposal or incineration.

If recycling is not practicable, dispose of in compliance with local regulations.

Contaminated packaging : Non-returnable containers:

Triple rinse containers.

Add rinsings to spray tank

If recycling, replace cap and return clean containers to recycler or designated collection point. Containers marked with the drumMUSTER container logo can be taken to a drumMUSTER collection site (02 6206 6868, www.drummuster.org.au).

Empty containers can be landfilled, when in accordance with the local regulations.

If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

Returnable containers:

Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

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SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number : UN 3077

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (INDOXACARB)

Class : 9

Packing group : III

Labels : 9

IATA-DGR

UN/ID No. : UN 3077

Proper shipping name : Environmentally hazardous substance, solid, n.o.s.
(INDOXACARB)

Class : 9

Packing group : III

Labels : Miscellaneous

Packing instruction aircraft)

(cargo aircraft) : 956 : 956

Packing instruction

(passenger

Environmentally hazardous : yes

IMDG-Code

UN number : UN 3077

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(INDOXACARB)

Class : 9

Packing group : III

Labels : 9

EmS Code : F-A, S-F

Marine pollutant : yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable for product as supplied.

National Regulations

ADG

UN number : UN 3077

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(INDOXACARB)

Class : 9

Packing group : III

Labels : 9

Hazchem Code : 2Z

Remarks : Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to the Australian Code for the Transport of Dangerous Goods (ADG). This applies when transported by road or rail in packagings that do

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not incorporate a receptacle exceeding 500 kg(L) or IBCs per ADG Special Provision AU01.

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely

based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture
Standard for the Poisons
Uniform Scheduling of : Schedule 6
Medicines and

Prohibition/Licensing Requirements : There is no applicable prohibition, authorisation and restricted use requirements, including for carcinogens referred to in Schedule 10 of the model WHS Act and Regulations.

Product Registration Number : APVMA Approval No. 64396

SECTION 16. OTHER INFORMATION

Revision Date : 31.07.2021

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

Date format : dd.mm.yyyy

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV) AU OEL : Australia. Workplace Exposure Standards for Airborne Contaminants.

ACGIH / TWA : 8-hour, time-weighted average

AU OEL / TWA : Exposure standard - time weighted average

AIIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemi-

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cal Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECl - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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