PROVAUNT 20WG

Version	Revision Date:	SDS Number:	This version replaces all previous versions.
1.0	16.12.2022	S00030023961	

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : PROVAUNT 20WG

Design code : A20382A

Manufacturer or supplier's details

Company : Syngenta Asia Pacific Pte. Ltd

Address : No. 1 HarbourFront Avenue, #03-03 Keppel Bay Tower Singapore 098632

Telephone : +65 6333 6400

Emergency telephone number : +60 376 283 812

Telefax : +65 6338 1256

Recommended use of the chemical and restrictions on use

Recommended use : Insecticide

2. HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity (Oral) : Category 4

Specific target organ toxicity - single exposure : Category 2 (Central nervous system)

Specific target organ toxicity - repeated exposure : Category 2 (Blood, Nervous system)

Long-term (chronic) aquatic hazard : Category 2

GHS label elements

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.
H411 Toxic to aquatic life with long lasting effects.

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.
P391 Collect spillage.

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.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
indoxacarb (ISO)	173584-44-6	>= 20 -< 25
kaolin	1332-58-7	>= 1 -< 10
sucrose, pure	57-50-1	>= 1 -< 10

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.
Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed : Nonspecific
No symptoms known or expected.

Notes to physician : There is no specific antidote available.
Treat symptomatically.

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 : Do not use a solid water stream as it may scatter and spread fire.

Specific hazards during firefighting : As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10).
Exposure to decomposition products may be a hazard to health.

Specific extinguishing methods : Do not allow run-off from fire fighting to enter drains or water courses.
Cool closed containers exposed to fire with water spray.

Special protective equipment for firefighters : Wear full protective clothing and self-contained breathing apparatus.

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.

7. HANDLING AND STORAGE

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

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/m3 (Respirable dust)	Supplier
kaolin	1332-58-7	PEL (long term) (Respirable dust)	2 mg/m3	SG OEL
		TWA (Respirable particulate matter)	2 mg/m3	ACGIH
sucrose, pure	57-50-1	PEL (long term)	10 mg/m3	SG OEL

		TWA	10 mg/m3	ACGIH

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

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

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 / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
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-octanol/water	:	No data available

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
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Minimum ignition energy	:	10 - 30 mJ
Particle size	:	No data available

10. STABILITY AND REACTIVITY

Reactivity	:	None reasonably foreseeable.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No dangerous reaction known under conditions of normal use.
Conditions to avoid	:	No decomposition if used as directed.
Incompatible materials	:	None known.
Hazardous decomposition products	:	No hazardous decomposition products are known.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : 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

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.

Germ cell mutagenicity

Components:

indoxacarb (ISO):

Germ cell mutagenicity - Assessment	:	Animal testing did not show any mutagenic effects.

Carcinogenicity

Components:

indoxacarb (ISO):

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

kaolin:

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

Reproductive toxicity

Components:

indoxacarb (ISO):

Reproductive toxicity - Assessment	:	No toxicity to reproduction

STOT - single exposure

Components:

indoxacarb (ISO):

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.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

indoxacarb (ISO):

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 0.65 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0.6 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	EC50 (Lemna gibba (gibbous duckweed)): > 84.3 mg/l Exposure time: 14 d
M-Factor (Acute aquatic toxicity)	:	1
Toxicity to fish (Chronic toxicity)	:	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
M-Factor (Chronic aquatic toxicity)	:	1

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	:	Remarks: No data available

Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	Do not contaminate ponds, waterways or ditches with chemi-

cal 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 : Empty remaining contents.
Triple rinse containers.
Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not re-use empty containers.

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 (cargo aircraft)	:	956
Packing instruction (passenger aircraft)	:	956
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.

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.

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

Workplace Safety and Health Act and Workplace Safety and Health (General Provisions) Regulations: This product is subjected to the SDS, labelling, PEL and other requirements in the Act/Regulations.

Environmental Protection and Management Act and Environmental Protection and Management (Hazardous Substances) Regulations	:	Not applicable
Fire Safety (Petroleum and Flammable Materials) Regulations	:	Not applicable

16. OTHER INFORMATION

Revision Date	:	16.12.2022
Date format	:	dd.mm.yyyy

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
SG OEL	:	Singapore. Workplace Safety and Health (General Provisions) Regulations - First Schedule Permissible Exposure Limits of Toxic Substances.
ACGIH / TWA	:	8-hour, time-weighted average
SG OEL / PEL (long term)	:	Permissible Exposure Level (PEL) Long Term

AIIC - 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 Chemical 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; TECI - 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.

SG / EN