



SAFETY DATA SHEET

Plemax

Revision Date 26-Jun-2019

Version 2

Product No INS00084-27

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Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Plemax

Synonyms	Indoxacarb Novaluron 240 80 SC
Pure substance/mixture	Mixture
Formula	SC

Relevant identified uses of the substance or mixture and uses advised against

Recommended Use	Insecticide
Uses advised against	No information available

Details of the supplier of the safety data sheet

Supplier Address	ADAMA SOUTH AFRICA (PTY) LTD Ground Floor, Simeka House The Vineyards Office Estate 99 Jip de Jager Drive Bellville 7530
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For further information, please contact

Email address	SDS@ADAMA.COM
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Emergency Telephone

Emergency Telephone	+ 27 82 446 8946 + 27 86 155 5777 + 27 21 982 1460
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Section 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

Acute toxicity - Oral	Category 4 - (H302)
Specific target organ toxicity (repeated exposure)	Category 1 - (H372)
Acute aquatic toxicity	Category 1 - (H400)
Chronic aquatic toxicity	Category 1 - (H410)
Flammable liquids	Category 4 - (H227)

Label Elements

Hazard pictograms



Signal word

Danger

Hazard Statements

H302 - Harmful if swallowed
 H372 - Causes damage to organs through prolonged or repeated exposure
 H410 - Very toxic to aquatic life with long lasting effects
 H227 - Combustible liquid

Precautionary Statements

P102 - Keep out of reach of children
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
 P243 - Take precautionary measures against static discharge
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray
 P264 - Wash face, hands and any exposed skin thoroughly after handling
 P270 - Do not eat, drink or smoke when using this product
 P501 - Dispose of contents/ container to an approved waste disposal plant

Other Hazards

No information available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical Name	Weight-%	CAS No	EC No	GHS Classification	M-Factor
Indoxacarb	19-23	173584-44-6		Acute Tox. 3 (H301) Acute Tox. 4 (H332) STOT RE 1(H372) Skin Sens. 1B (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	M=1 M=1
Novaluron	5-9	116714-46-6		Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	M=1 M=1000
Poly(oxy-1,2-ethanediyl), .alpha.-sulfo-.omega.-[tris(1-phenylethyl)phenoxy -, ammonium salt	1-2	119432-41-6		Aquatic Chronic 3 (H412)	

Section 4: FIRST AID MEASURES

First aid measures

General advice

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). First aider: Pay attention to self-protection!.

Inhalation

Remove to fresh air. If symptoms persist, call a physician. Call a physician.

Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Consult a physician if necessary.

Eye contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Ingestion Rinse mouth. Drink plenty of water. Call a physician or poison control center immediately.

Self-protection of the first aider Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms None known.

Indication of any immediate medical attention and special treatment needed

Note to physicians May cause sensitization of susceptible persons.

Section 5: FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

No information available.

Special hazards arising from the substance or mixture

Combustible material.

Advice for firefighters

In the event of fire, wear self-contained breathing apparatus
In the event of fire and/or explosion do not breathe fumes.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions

Use personal protective equipment as required. Avoid contact with eyes and skin. Avoid contact with skin, eyes or clothing.

For emergency responders

Use personal protection recommended in Section 8.

Environmental precautions

Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system.

Methods and material for containment and cleaning up

Methods for cleaning up

Take up mechanically, placing in appropriate containers for disposal.

Reference to other sections

Other Information

See also section 8,13

Section 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Do not breathe dust/fume/gas/mist/vapors/spray.

General Hygiene Considerations

Wash contaminated clothing before reuse. When using do not eat, drink or smoke.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep away from heat, sparks and open flame. Keep out of the reach of children. Keep container tightly closed in a dry and well-ventilated place. Keep containers tightly closed in a cool, well-ventilated place.

Specific end use(s)

Risk Management Methods (RMM)

The information required is contained in this Material Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

National occupational exposure limits

Exposure controls

Engineering Controls

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection

Tight sealing safety goggles.

Hand Protection

Suitable chemical resistant gloves (EN 374) also with prolonged, direct contact (recommendation: protection index 6, corresponding > 480 minutes Permeability time (permeation) according to EN 374): e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm).

Body Protection

Suitable protective clothing, Suitable protective clothing.

Respiratory protection

Use only with adequate ventilation.

General Hygiene Considerations

Wash contaminated clothing before reuse. When using do not eat, drink or smoke.

Environmental exposure controls

Do not allow into any sewer, on the ground or into any body of water.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

<u>Property</u>	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Appearance			
Physical state	: Liquid, viscous		
Color	: white		
Odor	: No data available		
Odor threshold	: No data available		
pH	: 5.6 - 7.0	CIPAC MT 75.3	

Melting point/freezing point °C	:	No data available		
Boiling point/boiling range °C	:	No data available		
Flash point °C	:	86	CIPAC MT 12.3	
Evaporation rate	:	Not Applicable		
Flammability (solid, gas)	:	Not Applicable		
Upper/lower flammability or explosive limits	:	No data available		
Vapor pressure kPa	:	No data available		
Vapor density	:	No data available		
Relative density	:	1.1 - 1.20	EEC A.3	20° C
Solubility(ies) mg/l	:	----		Not Applicable
Partition Coefficient (n-octanol/water) Log Pow	:			See Section 12 for more information
Autoignition temperature °C	:	----		Not Applicable
Decomposition temperature °C	:	No data available		No data available
Kinematic viscosity mm ² /s 40 °C	:	66	OECD 114	
Explosive properties	:	No data available		
Oxidizing properties	:	No data available		
Other Information				
Bulk density g/ml	:			
Surface tension mN/m	:	Not Applicable		

Section 10: STABILITY AND REACTIVITY

Reactivity

Not available.

Chemical stability

Stable under normal conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Heat, flames and sparks.

Incompatible Materials

No information available

Hazardous Decomposition Products

None under normal use conditions.

Section 11: TOXICOLOGY INFORMATION

Information on toxicological effects

Acute toxicity

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Oral LD50 mg/kg	: >2000	Rat	OECD 423	
Dermal LD50 mg/kg	: > 4000	Rat	OECD 402	
Inhalation LC50 mg/l/4h	: >1.04	Rat	OECD 403	Maximum attainable concentration

Skin corrosion/irritation	: Non-irritating to the skin	Rabbit	OECD 404
Serious eye damage/eye irritation	: Not irritating to eyes	Rabbit	OECD 405
Respiratory/skin sensitization	: Not a sensitizer	Guinea pig	OECD 406

Chronic toxicity

Germ cell mutagenicity

Chemical Name

Indoxacarb	: No data available
Novaluron	: Not classified

Carcinogenicity

Chemical Name

Indoxacarb	: No data available
Novaluron	: Not Carcinogenic

Reproductive toxicity

Chemical Name

Indoxacarb	: No data available
Novaluron	: Not toxic for the reproductive system

STOT - single exposure

Chemical Name

Indoxacarb	: No data available
Novaluron	: No data available

STOT - repeated exposure

Chemical Name

Indoxacarb	: No data available
Novaluron	: No data available

Aspiration hazard

Chemical Name

Indoxacarb	: No data available
Novaluron	: No data available

Section 12: ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity

Acute toxicity

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Fish 96-hour LC50 mg/l	: 61.6	Zebra Fish	OECD 203	
Crustacea 48-hour EC50 mg/l	: 0.12	Daphnia similis	OECD 202	
Algae 72-hour EC50 mg/l	: 0.3	P. subcapitata	OECD 201	
Other plants EC50 mg/l	: ----		OECD 221	No data available

Chronic aquatic toxicity

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Fish NOEC mg/l	: No data available			
Crustacea NOEC mg/l	: No data available			
Algae NOEC mg/l	: No data available			
Other plants NOEC mg/l	: No data available			

Terrestrial Toxicity

Birds Oral LD50 mg/kg

Chemical Name

Indoxacarb	: ----	No data available		No data available
Novaluron	: > 2000	Bobwhite quail	US EPA 71-1	

Bees Oral LD50 µg/bee

Chemical Name

Indoxacarb	:	----			No data available
Novaluron	:	> 100	Apis mellifera	EPPO 170	

Persistence and degradability

**Abiotic Degradation
Water DT50 days**

Chemical Name

	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Indoxacarb	: ----		No data available
Novaluron	: ----		No data available

Soil DT50 days

Chemical Name

Indoxacarb	: ----		No data available
Novaluron	: ----		No data available

Biodegradation

Chemical Name

Indoxacarb	: No data available
Novaluron	: No data available

Bioaccumulative potential

**Partition Coefficient
(n-octanol/water) Partition
Coefficient (n-octanol/water) Log
Pow**

Chemical Name

	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Indoxacarb	: 4.65		
Novaluron	: 4.3	OECD 107	

Bioconcentration factor (BCF)

Chemical Name

Indoxacarb	: ----		No data available
Novaluron	: ----		No data available

Mobility in soil

Adsorption/Desorption

Chemical Name

	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Indoxacarb	: ----		No data available
Novaluron	: 9598		Koc

Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB

Other adverse effects

No information available.

Section 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Improper disposal or reuse of this container may be dangerous and illegal.

Other Information Waste codes should be assigned by the user based on the application for which the product was used.

Section 14: TRANSPORTATION INFORMATION

IMDG/IMO

UN/ID No * 3082
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Indoxacarb, Novaluron)
Hazard Class 9
Packing Group III
Marine pollutant Yes
Special precautions for user

RID/ADR

UN/ID No * 3082
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Indoxacarb, Novaluron)
Hazard Class 9
Packing Group III
Environmental hazard Yes
Special precautions for user

ICAO/IATA

UN/ID No * 3082
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Indoxacarb, Novaluron)
Hazard Class 9
Packing Group III
Environmental hazard Yes
Special precautions for user
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not Applicable



* Note: UN3077 & UN3082 – These products may be transported as non-dangerous goods under the special provisions of IMDG Code 2.10.2.7; ADR SP375 and ICAO/IATA A197 when packed in single or inner packaging of up to 5L for liquids or 5 kg or less for solids.

Section 15: REGULATORY INFORMATION

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

Section 16: OTHER INFORMATION

Revision Note Changes made to the last version are labeled with this sign ***.

List of Acronyms

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CAS Number - Chemical Abstracts Service number
EC Number - EINECS and ELINCS Number
EINECS - European Inventory of Existing Commercial Substances
ELINCS - European List of notified Chemical Substances
IATA - International Air Transport Association
ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG - International Maritime Dangerous Goods
LC50 - Lethal Concentration to 50 % of a test population
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
OECD - Organization for Economic Co-operation and Development
PBT - Persistent, Bioaccumulative and Toxic substance
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
STOT - Specific Target Organ Toxicity
vPvB - Very Persistent and Very Bioaccumulative

Disclaimer

The information provided in this Material 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.

End of Safety Data Sheet