SAFETY DATA SHEET

The Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

Divino 250 EC

Revision date 23-Feb-2023 **Version** 1.01 **Supersedes Date:** 08-Feb-2023 **Product Code(s)** FNG56987-27

Print Date 23-Feb-2023 ADM.01350.F.1.C 9501909

1. Identification

Product identifier

Divino 250 EC

Other means of identification

Synonyms	Difenoconazole 250 EC
Formulation type	EC
Registration Number(s)	L9343
Pure substance/mixture	Mixture

Recommended use of the chemical and restrictions on use

Recommended use	Fungicide
Uses advised against	No information available

Detailed information about the manufacturer, supplier, and/or importer

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

Emergency telephone number

Emergency Telephone	+27 82 446 8946 (Griffon Poison Centre) +27 86 155 5777 (Tygerberg Poison Information Centre) +27 86 100 6366 and +27 83 253 6618 (SPILL TECH)
E-mail address	SDS@ADAMA.COM

2. Hazard(s) identification

Classification of the substance or mixture

Aspiration hazard	Category 1 - (H304)
Serious eye damage/eye irritation	Category 1 - (H318)
Acute aquatic toxicity	Category 1 - (H400)
Chronic aquatic toxicity	Category 1 - (H410)

Label elements

Signal word Danger

Hazard pictograms

Hazard statements

H304 - May be fatal if swallowed and enters airways
H318 - Causes serious eye damage
H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements

P101 - If medical advice is needed, have product container or label at hand
P102 - Keep out of reach of children
P103 - Read label before use
P264 + P265 - Wash face, hands and any exposed skin thoroughly after handling. Do not touch eyes
P273 - Avoid release to the environment
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P301 + P316 - IF SWALLOWED: Get emergency medical help immediately
P305 + P354 + P388 - IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses if present, and easy to do. Continue rinsing.
P317 - Get medical help
P331 - Do NOT induce vomiting
P391 - Collect spillage
P405 - Store locked up
P501 - Dispose of contents/ container to an approved waste disposal plant

Additional information

This product is classified as hazardous according to the criteria in South Africa - GHS classification and labelling of chemicals – SANS10234 and the Regulations for Hazardous Chemical Agents - 2021.

Other hazards

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

3. Composition/information on ingredients

Substance

Not applicable

Mixture

Synonyms Difenoconazole 250 EC

Chemical name	CAS No	Weight-%	EC No	INTERNATIONAL GHS CLASSIFICATION	M-Factor
Solvent naphtha (petroleum), heavy arom., <1% naphthalene	64742-94-5	53-60	265-198-5	Asp. Tox. 1 (H304) Aquatic Chronic 2 (H411)	
Difenoconazole	119446-68-3	21-27	601-613-1	Acute Tox. 4 (H302) Eye Irrit. 2 (H319) Aquatic Acute 1 (H400)	M=10 =1

				Aquatic Chronic 1(H410)	
C11 Alcohol ethoxylate	34398-01-1	4-7	500-084-3	Eye Dam. 1 (H318) Aquatic Acute 2 (H401)	
calcium dodecylbenzenesulphonate	26264-06-2	2-4	247-557-8	Skin Irrit. 2 (H315)Eye Dam. 1 (H318)	
2-Ethylhexane-1-ol	104-76-7	1-3		Acute toxicity, oral (H302) Acute toxicity, dermal (H313) Skin Corr./Irrt. 2 (315) Eye Dam./Irrit. 1 (H318) Aquatic Chronic 4 (H413) STOT SE 3 (H335) Flam. Liq. 3 (H226)	

Full text of H- and EUH-phrases: see section 16

Additional information
Note: The other ingredients do not cause or contribute towards the correct GHS classification of Divino 250 EC and are therefore, in terms of the South African Regulations for Hazardous Chemical Agents - 2021. Regulation 14(b), not listed in the table above.

4. First-aid measures

Description of necessary first aid measures

General advice In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). First aider: Pay attention to self-protection.

Inhalation Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. 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. Get medical attention immediately if symptoms occur.

Ingestion Rinse mouth. Do NOT induce vomiting. Get medical attention immediately if symptoms occur.

For emergency responders

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

Most important symptoms/effects, acute and delayed

Symptoms None known.

Indication of immediate medical attention and special treatment needed, if necessary

Note to physicians Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media

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

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical

Specific hazards arising from the chemical	No information available.

Specific/special fire-fighting measures

Specific/special fire-fighting measures	No information available.

Special protective equipment and precautions for fire-fighters

Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Ensure adequate ventilation.

Environmental precautions

Environmental precautions	Prevent further leakage or spillage if safe to do so.

Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Pick up and transfer to properly labeled containers.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.
Other information	Refer to protective measures listed in Sections 7 and 8.

7. Handling and storage

Preventive measures for safe handling

Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product.

Precautions for safe handling

General hygiene considerations	Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children. Store away from other materials.
Incompatible materials	Strong acids. Strong bases. Strong oxidizing agents.

8. Exposure controls/personal protection

Control parameters

Exposure guidelines

Appropriate engineering controls

Engineering controls Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection Wear suitable gloves.

Eye/face protection Tight sealing safety goggles.

Skin and body protection Wear suitable protective clothing.

General hygiene considerations Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

Environmental exposure controls Local authorities should be advised if significant spillages cannot be contained.

9. Physical and chemical properties

Information on basic physical and chemical properties

Property		Values	Method	Remarks
Appearance				
Physical state	:	Liquid		
Color	:	clear Yellowish		
Odor	:	Slight Aromatic Odor		
Odor threshold	:	No data available		
pH	:	4.5-7.5	CIPAC MT 75.3	
Melting point / freezing point °C	:	----		Not applicable
Boiling point / boiling range °C	:	----		No data available
Flash point °C	:	108	CIPAC MT 12	
Evaporation rate	:	No data available		
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	:	1.007 - 1.107	OECD 109	
Solubility(ies) mg/l	:	----		Not applicable
Partition coefficient Log Pow	:			See Section 12 for additional Ecological Information
Autoignition temperature °C	:	445	EEC A.15	
Decomposition temperature °C	:	----		No data available
Kinematic viscosity mm2/s 40 °C	:	11.16	OECD 114	
Explosive properties	:	Not an explosive	EPA-OPPTS 830.6316	
Oxidizing properties	:	Not oxidizing	EPA-OPPTS 830.6314	
Surface tension	:	34.6	OECD 115	
Particle Size	:	Not applicable		

Other information
Bulk density g/ml : ----

10. Stability and reactivity

Reactivity

Reactivity No information available.

Chemical stability

Stability Stable under normal conditions.

Explosion data
Sensitivity to mechanical impact None.
Sensitivity to static discharge None.

Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

Conditions to avoid

Conditions to avoid None known based on information supplied.

Incompatible materials

Incompatible materials Strong acids. Strong bases. Strong oxidizing agents.

Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

11. Toxicological information

Information on toxicological effects

Acute toxicity

		Values	Species	Method	Remarks
Oral LD50 mg/kg	:	>2000	Rat	EPA-OPPTS 870.1100	
Dermal LD50 mg/kg	:	> 2000	Rat	OECD 402	
Inhalation LC50 LC50	:	1.75	Rat	OECD 403	Maximum attainable concentration
Skin corrosion/irritation	:	Non-irritating to the skin	Rabbit	OECD 404	
Serious eye damage/eye irritation	:	Causes serious eye damage	Rabbit	OECD 405	
Sensitization	:	Not a skin sensitizer	Guinea pig	OECD 406	

Chronic toxicity

Germ cell mutagenicity
Chemical name
Difenoconazole : Not classified

Carcinogenicity .
Chemical name
Difenoconazole : Not Carcinogenic

Reproductive toxicity .
Chemical name
Difenoconazole : Not toxic for the reproductive system

STOT - Single Exposure
Chemical name
Difenoconazole : No data available

STOT - Repeated Exposure
Chemical name
Difenoconazole : No data available

Aspiration hazard
Chemical name
Difenoconazole : No data available

12. Ecological information

Ecotoxicity

Aquatic toxicity

Acute toxicity		**Values**	**Species**	**Method**	**Remarks**
Fish 96-hour LC50 mg/l	:	0.08	Poecilia reticulata	OECD 203	
Crustacea 48-hour EC50 mg/l	:	No data available			
Algae 72-hour EC50 mg/l	:	1.13	Selenastrum capricornutum	OECD 201	
Other plants EC50 mg/l	:	No data available			

Chronic aquatic toxicity		**Values**	**Species**	**Method**	**Remarks**
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
Difenoconazole : > 2000 Japanese quail

Bees Oral LD50 µg/bee
Chemical name
Difenoconazole : > 187

Abiotic Degradation
Water DT50 days
Chemical name
Difenoconazole : 1d Not persistent in water

Soil DT50 days
Chemical name
Difenoconazole : 149-187 Not persistent in soil

Biodegradation
Chemical name
Difenoconazole : Not readily biodegradable

Log Pow	**Values**	**Method**	**Remarks**

Chemical name		
Difenoconazole	: 4.4	25 °C

Bioconcentration factor (BCF)

Chemical name	
Difenoconazole	: 330

Adsorption/Desorption	**Values**	**Method**	**Remarks**
Chemical name			
Difenoconazole	: 400 - 7730		KOC

13. Disposal considerations

Disposal methods

Waste from residues/unused products Dispose of waste in accordance with environmental legislation. Dispose of in accordance with local regulations.

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

14. Transport information

ADR

14.1 UN number	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Difenoconazole)
14.3 Transport hazard class(es)	9
Labels	9
14.4 Packing group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Difenoconazole), 9, III
14.5 Environmental hazard	Yes
14.6 Special Precautions for Users	
Special Provisions	274, 335, 601, 375
Classification code	M6

RID

14.1 UN number	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Difenoconazole)
14.3 Transport hazard class(es)	9
Labels	9
14.4 Packing group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Difenoconazole), 9, III
14.5 Environmental hazard	Yes
14.6 Special Precautions for Users	
Special Provisions	274, 335, 375, 601
Classification code	M6

IMDG

14.1 UN number	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Difenoconazole)
14.3 Hazard Class	9
14.4 Packing group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Difenoconazole), 9, III, Marine pollutant
14.5 Marine pollutant	P
Environmental hazard	Yes

14.6 Special Precautions for Users	
Special Provisions	274, 335, 969
EmS-No	F-A, S-F
IMDG Stowage and segregation	Category A
14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code	No information available

IATA

14.1 UN number	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Difenoconazole)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Difenoconazole), 9, III
14.5 Environmental hazard	Yes
14.6 Special Precautions for Users	
Special Provisions	A97, A158, A197
ERG Code	9L

* 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

15. Regulatory information

Safety, health and environmental regulations specific for the product in question

Registration Requirements: Fertilizer, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act 36 of 1947).Pesticide Handling, Storage and Disposal Safety: SANS10206: 2020.Safety Data Sheet and Occupational Exposure Limit Requirements: Regulations for Hazardous Chemical Agents – 2021 – SA Occupational Health and Safety Act. SANS11014:2010.Control of and handling of poisonous/hazardous and non-poisonous/non-hazardous substances/chemicals in workplaces: Hazardous Substances Act, 1973 (Act No.15 of 1973). Occupational Health and Safety Act No. 85 of 1993.

16. Other information

Full text of H-Statements referred to under section 3
H226 - Flammable liquid and vapor
H302 - Harmful if swallowed
H304 - May be fatal if swallowed and enters airways
H313 - May be harmful in contact with skin
H315 - Causes skin irritation
H318 - Causes serious eye damage
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H400 - Very toxic to aquatic life
H401 - Toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects

Date of preparation of the SDS No data available

Revision date 23-Feb-2023

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

Key or legend to abbreviations and acronyms used in the safety data sheet

IMDG	International Maritime Dangerous Goods (IMDG)
IATA	International Air Transport Association (IATA)
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Abbreviations and 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

The Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

Classification of the mixture	**Classification procedure**
H304 - May be fatal if swallowed and enters airways	Classification based on Calculation method
H318 - Causes serious eye damage	Classification based on test data
H400 - Very toxic to aquatic life	Classification based on test data
H410 - Very toxic to aquatic life with long lasting effects	Classification based on Calculation method

Disclaimer

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

End of Safety Data Sheet