



SAFETY DATA SHEET

Diurex 800 SC

Revision Date 20-Mar-2019

Version 1

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

Product identifier

Diurex 800 SC

Pure substance/mixture Mixture

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

Recommended Use Herbicide
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
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Section 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

Acute toxicity - Oral Category 5 - (H303)
Carcinogenicity Category 2 - (H351)
Specific target organ toxicity (repeated exposure) Category 2 - (H373)
Acute aquatic toxicity Category 1 - (H400)
Chronic aquatic toxicity Category 1 - (H410)

Label Elements

Hazard pictograms



Signal word

Warning

Hazard Statements

H303 - May be harmful if swallowed
 H351 - Suspected of causing cancer
 H373 - May cause damage to organs through prolonged or repeated exposure
 H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements

P102 - Keep out of reach of children
 P201 - Obtain special instructions before use
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray
 P270 - Do not eat, drink or smoke when using this product
 P280 - Wear protective gloves/protective clothing/eye protection/face protection
 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
Diuron	61-68	330-54-1	206-354-4	Acute Tox. 4 (H302) STOT RE 2 (H373) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Carc. 2 (H351)	

Section 4: FIRST AID MEASURES

First aid measures

General advice

If symptoms persist, call a physician. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing.

Inhalation

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

Skin Contact

Consult a physician if necessary. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

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. If symptoms persist, call a physician.

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 Treat symptomatically.

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

No specific hazard known.

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.

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

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product.

General Hygiene Considerations

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

Conditions for safe storage, including any incompatibilities**Storage Conditions**

Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children.

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**

Chemical Name	European Union	United Kingdom	France	Spain	Germany
Diuron 330-54-1		STEL: 30 mg/m ³ TWA: 10 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³	
Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
Diuron 330-54-1		TWA: 10 mg/m ³		TWA: 10 mg/m ³ STEL: 20 mg/m ³	TWA: 5 mg/m ³
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
Diuron 330-54-1	STEL 10 mg/m ³ TWA: 5 mg/m ³	TWA: 10 mg/m ³		TWA: 5 mg/m ³ STEL: 10 mg/m ³	TWA: 10 mg/m ³

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

Use suitable protective clothing and equipment if required, such as safety goggles certified to EN 166, gloves certified to EN 374, protective boots certified to EN 13832, and/or a water repellent woven coverall with 65% polyester and 35 % cotton.

Respiratory protection

Use only with adequate ventilation.

General Hygiene Considerations

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

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**

Property	Values	Method	Remarks
Appearance			
Physical state	: Liquid		
Color	: white		
Odor	: No information available		
Odor threshold	: No data available		
pH	: 5.9 - 6.9	CIPAC MT 75	
Melting point/freezing point °C	: ----		Not Applicable
Boiling point/boiling range °C	: ----		Not Applicable
Flash point °C	: > 100	CIPAC MT 12.2	

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	:	1.239 - 1.339	CIPAC MT 3.2
Solubility(ies) mg/l	:	----	Not Applicable
Partition Coefficient (n-octanol/water) Log Pow	:		See Section 12 for more information
Autoignition temperature °C	:	----	No data available
Decomposition temperature °C	:	----	No data available
Kinematic viscosity mm²/s 40 °C	:	509.4	CIPAC MT 22
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	
Dermal LD50 mg/kg	: > 2000	Rat	OECD	
Inhalation LC50 mg/l/4h	: > 20	Rat	OECD	
Skin corrosion/irritation	: Non-irritating to the skin	Rabbit	OECD	
Serious eye damage/eye irritation	: Not irritating to eyes	Rabbit	OECD	
Respiratory/skin sensitization	: Not a skin sensitizer	Guinea pig	OECD	

Chronic toxicity

Germ cell mutagenicity

Chemical Name

Diuron : Not classified

Carcinogenicity

Chemical Name

Diuron : Suspected of causing cancer

Reproductive toxicity

Chemical Name

Diuron : Not toxic for the reproductive system

STOT - single exposure

Chemical Name

Diuron : No data available

STOT - repeated exposure

Chemical Name

Diuron : May cause damage to organs through prolonged or repeated exposure

Aspiration hazard

Chemical Name

Diuron : 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	: 21.25	Brachydanio rerio	OECD 203	
Crustacea 48-hour EC50 mg/l	: ---			No data available
Algae 72-hour EC50 mg/l	: ---			No data available
Other plants EC50 mg/l	: ---			No data available

Chronic aquatic toxicity

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Fish NOEC mg/l	:			
Crustacea NOEC mg/l	:			
Algae NOEC mg/l	:			
Other plants NOEC mg/l	:			

Terrestrial Toxicity

Birds Oral LD50 mg/kg

Chemical Name

Diuron : 1104 Bobwhite quail

Bees Oral LD50 µg/bee

Chemical Name

Diuron : 145 contact, mg/kg

Persistence and degradability

Abiotic Degradation

Water DT50 days

Chemical Name

Diuron : --- No data available

Soil DT50 days

Chemical Name

Diuron : 90-180

Biodegradation

Chemical Name

Diuron : No data available

Bioaccumulative potential

Partition Coefficient (n-octanol/water) Partition Coefficient (n-octanol/water) Log Pow	Values	Method	Remarks
Chemical Name Diuron	: 2.85		25 °C

Bioconcentration factor (BCF)

Chemical Name

Diuron : No data available

Mobility in soil

Adsorption/Desorption	Values	Method	Remarks
Chemical Name Diuron	: 400		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. (Diuron)
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. (Diuron)
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. (Diuron)
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