

SAFETY DATA SHEET

Nimrod

Revision Date 03-Mar-2019

Version 1

Publish Date 03-Mar-2019

Product No FNG56787-27
R-10828-NPF-NW 9500557 /MCW-5382

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

Product identifier

Nimrod

Synonyms Bupirimate 250 EC
Pure substance/mixture Mixture

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

Recommended Use Fungicide
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

For further information, please contact

Email address SDS@ADAMA.COM

Emergency Telephone

Emergency Telephone + 27 82 446 8946
+ 27 86 155 5777
+ 27 21 982 1460

Section 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

Aspiration toxicity Category 1 - (H304)
Serious eye damage/eye irritation Category 2B - (H319)
Carcinogenicity Category 2 - (H351)
Specific target organ toxicity (single exposure) Category 3 - (H335)
Chronic aquatic toxicity Category 1 - (H410)
Flammable liquids Category 3 - (H226)

Label Elements

Hazard pictograms



Signal word

Danger

Hazard Statements

H304 - May be fatal if swallowed and enters airways
 H319 - Causes serious eye irritation
 H335 - May cause respiratory irritation
 H351 - Suspected of causing cancer
 H410 - Very toxic to aquatic life with long lasting effects
 H226 - Flammable liquid and vapor

Precautionary Statements

P102 - Keep out of reach of children
 P201 - Obtain special instructions before use
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P243 - Take precautionary measures against static discharge
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
 P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P331 - Do NOT induce vomiting
 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
Bupirimate	25-30	41483-43-6	255-391-2	Carc. 2 (H351) Skin Sens. 1B (H317) Aquatic Chronic 1 (H410)	M=1
n-Butan-1-ol	31-34	71-36-3	200-751-6	STOT SE 3 (H335) STOT SE 3 (H336) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Acute Tox. 4 (H302) Flam Liq. 3 (H226)	
Hydrocarbons, C10, aromatics, <1% naphthalene	14-17	N/A	918-811-1	STOT SE 3 (H336) Asp. Tox. 1 (H304) Aquatic Chronic 2 (H411)	
Hydrocarbons C11-C14, n-alkanes, isoalkanes, cyclics <2% aromatic	8.5-13	N/A	926-141-6	Asp. Tox. 1 (H304)	

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 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. If symptoms persist, call a physician.
Ingestion	Do NOT induce vomiting. 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

Wear self contained breathing apparatus for fire fighting if necessary

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions

Remove all sources of ignition. Evacuate personnel to safe areas. Use only with adequate ventilation. Use personal protective equipment as required. Keep people away from and upwind of spill/leak.

For emergency responders

Use personal protection recommended in Section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. 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 only with adequate ventilation. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. All equipment used when handling the product must be grounded. Use with local exhaust ventilation. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray.

General Hygiene Considerations

When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep tightly closed in a dry and cool place. Keep in properly labeled containers. 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

Chemical Name	European Union	United Kingdom	France	Spain	Germany
n-Butan-1-ol 71-36-3		STEL: 50 ppm STEL: 154 mg/m ³ Skin	STEL: 50 ppm STEL: 150 mg/m ³	S* STEL: 50 ppm STEL: 154 mg/m ³	TWA: 100 ppm TWA: 310 mg/m ³ Ceiling / Peak: 100 ppm Ceiling / Peak: 310 mg/m ³
Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
n-Butan-1-ol 71-36-3		TWA: 20 ppm		TWA: 50 ppm TWA: 150 mg/m ³ STEL: 75 ppm STEL: 230 mg/m ³ Skin	Ceiling: 50 ppm Ceiling: 150 mg/m ³ Skin
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
n-Butan-1-ol 71-36-3	STEL 200 ppm STEL 600 mg/m ³ TWA: 50 ppm TWA: 150 mg/m ³	STEL: 50 ppm STEL: 150 mg/m ³ TWA: 50 ppm TWA: 150 mg/m ³	NDSch: 150 mg/m ³ TWA: 50 mg/m ³ Skin	Skin Ceiling: 25 ppm Ceiling: 75 mg/m ³	STEL: 25 ppm STEL: 75 mg/m ³ Skin

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	Wear fire/flare resistant/retardant clothing, Gloves made of plastic or rubber, Antistatic footwear, Suitable protective clothing, Apron.
Respiratory protection	Use only with adequate ventilation.
General Hygiene Considerations	When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.
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		
Color	: light yellow		
Odor	: Solvent		
Odor threshold	: No data available		
pH	: 8.7 - 9.2	CIPAC MT 75.2	
Melting point/freezing point °C	: No data available		
Boiling point/boiling range °C	: No data available		
Flash point °C	: 40	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	: 0.88 - 0.98	EEC A.3	
Solubility(ies) mg/l	: No data available		
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	:		Not available
Explosive properties	: Not an explosive		
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	JF 4260	
Dermal LD50 mg/kg	: > 2000	Rat	JF 4260	
Inhalation LC50 mg/l/4h	: > 5.3	Rat	OECD 403	
Skin corrosion/irritation	: Non-irritating to the skin	Rabbit	OECD 404	
Serious eye damage/eye irritation	: Irritating to eyes	Rabbit	OECD 405	
Respiratory/skin sensitization	: Not a skin sensitizer	Guinea pig	OECD 406	

Chronic toxicity

Germ cell mutagenicity

Chemical Name
Bupirimate : Not classified

Carcinogenicity

Chemical Name
Bupirimate : Suspected of causing cancer

Reproductive toxicity

Chemical Name
Bupirimate : Not toxic for the reproductive system

STOT - single exposure

Chemical Name
Bupirimate : No data available

STOT - repeated exposure

Chemical Name
Bupirimate : No data available

Aspiration hazard

Chemical Name
Bupirimate : 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	: 6.2	Oncorhynchus mykiss		
Crustacea 48-hour EC50 mg/l	: 11.9	Daphnia magna	OECD 202	
Algae 72-hour EC50 mg/l	: 1.55	P. subcapitata	OECD 201	
Other plants EC50 mg/l	:			Not 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				
Bupirimate	: >5000	Japanese quail		

Bees Oral LD50 µg/bee				
Chemical Name				
Bupirimate	: > 200			Oral

Persistence and degradability

Abiotic Degradation	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Water DT50 days			
Chemical Name			
Bupirimate	: 165	SETAC	

Soil DT50 days			
Chemical Name			
Bupirimate	: 22-69		

Biodegradation			
Chemical Name			
Bupirimate	: Not readily biodegradable	OECD 301 D	

Bioaccumulative potential

Partition Coefficient	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
(n-octanol/water) Partition Coefficient (n-octanol/water) Log Pow			
Chemical Name			
Bupirimate	: 3.68	EEC A.8	pH 7

Bioconcentration factor (BCF)			
Chemical Name			
Bupirimate	:		Not available

Mobility in soil

Adsorption/Desorption	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Chemical Name			
Bupirimate	: 882 - 2822		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 *	1993
Proper shipping name	FLAMMABLE LIQUID, N.O.S. (31-34% n-BUTANOL)
Hazard Class	3
Packing Group	III
Marine pollutant	Yes
Special precautions for user	

RID/ADR

UN/ID No *	1993
Proper shipping name	FLAMMABLE LIQUID, N.O.S. (31-34% n-BUTANOL)
Hazard Class	3
Packing Group	III
Environmental hazard	Yes
Special precautions for user	

ICAO/IATA

UN/ID No *	1993
Proper shipping name	FLAMMABLE LIQUID, N.O.S. (31-34% n-BUTANOL)
Hazard Class	3
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