

SAFETY DATA SHEET

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

Nimrod

Revision date 11-Dec-2022

Version 4.01 Supersedes Date: 17-Nov-2022

Product Code(s)

FNG56787-27

Print Date 11-Dec-2022

ADM.00550.F.1.B / MCW-5382 9511367

1. Identification

Product identifier

Nimrod

Other means of identification

Synonyms Bupirimate 250 EC
Formulation type EC
Registration Number(s) L1117
Pure substance/mixture Mixture

Recommended use of the chemical and restrictions on use

Recommended use Fungicide; Professional use
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 2 - (H319)
Carcinogenicity	Category 2 - (H351)
Specific target organ toxicity (single exposure)	Category 3 - (H335) ; (H336)
Chronic aquatic toxicity	Category 1 - (H410)
Flammable liquids	Category 3 - (H226)

Label elements

Signal word Danger

Hazard pictograms**Hazard statements**

H226 - Flammable liquid and vapor
 H304 - May be fatal if swallowed and enters airways
 H319 - Causes serious eye irritation
 H335 - May cause respiratory irritation
 H336 - May cause drowsiness or dizziness
 H351 - Suspected of causing cancer
 H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements

P102 - Keep out of reach of children
 P203 - Obtain, read and follow all safety instructions before reuse
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
 P233 - Keep container tightly closed
 P240 - Ground/bond container and receiving equipment
 P241 - Use explosion-proof electrical/ ventilating/ lighting/ equipment
 P242 - Use only non-sparking tools
 P243 - Take precautionary measures against static discharge
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
 P271 - Use only outdoors or in a well-ventilated area
 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
 P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P318 - If exposed or concerned get medical advice.
 P319 - Get medical help if you feel unwell
 P331 - Do NOT induce vomiting
 P337 + P317 - If eye irritation persists: Get medical help
 P364 + P365 - Take off contaminated clothing and wash it before reuse
 P370 + P378 - In case of fire: Use dry sodium carbonate to extinguish
 P391 - Collect spillage
 P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
 P405 - Store locked up
 P403 + P235 - Store in a well-ventilated place. Keep cool
 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**

Bupirimate 250 EC

Chemical name	CAS No	Weight-%	EC No	INTERNATIONAL GHS CLASSIFICATION	M-Factor
n-Butan-1-ol	71-36-3	31-36	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)	
Bupirimate	41483-43-6	25-30	255-391-2	Carc. 2 (H351) Skin Sens. 1B (H317) Aquatic Chronic 1 (H410)	M=1
Hydrocarbons, C10, aromatics, <1% naphthalene	-	17-22	918-811-1	STOT SE 3 (H336) Asp. Tox. 1 (H304) Aquatic Chronic 2 (H411)	
Hydrocarbons C11-C14, n-alkanes, isoalkanes, cyclics <2% aromatic	-	9-12	926-141-6	Asp. Tox. 1 (H304)	
Benzenesulfonic acid, C10-13-alkyl derivs., calcium salt	1335202-81-7	1-3	932-231-6	Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Chronic 3 (H412)	

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 Nimrod 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 unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

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. Call a physician or poison control center immediately.

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 Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Flammable properties Flammable

Explosive properties Not an explosive.

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 Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.

Environmental precautions

Environmental precautions Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods and material for containment and cleaning up

Methods for containment	Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.
Methods for cleaning up	Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.
Other information	Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

7. Handling and storage

Preventive measures for safe handling

Advice on safe handling	Use personal protection equipment. Avoid breathing vapors or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. 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. In case of insufficient ventilation, wear suitable respiratory equipment.
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Precautions for safe handling

General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.
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Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store locked up. Keep out of the reach of children. Store away from other materials.
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8. Exposure controls/personal protection

Control parameters

Exposure guidelines	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies
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Chemical name	ACGIH TLV
n-Butan-1-ol 71-36-3	TWA: 20 ppm

Appropriate engineering controls

Engineering controls	Ensure adequate ventilation, especially in confined areas.
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Individual protection measures, such as personal protective equipment

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

Eye/face protection	Tight sealing safety goggles.
Skin and 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.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.
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

<u>Property</u>	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Appearance			
Physical state	: Liquid		
Color	: light yellow		
Odor	: chemical		
Odor threshold	: No data available		
pH	: 8.4 - 9.4	CIPAC MT 75.2	solution (1%)
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	: 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	: 0.88 - 0.98	EEC A.3	
Solubility(ies) mg/l	: No data available		
Partition coefficient Log Pow	:		See Section 12 for additional Ecological Information
Autoignition temperature °C	: No data available		
Decomposition temperature °C	: No data available		
Kinematic viscosity mm²/s 40 °C	: ----		No data available
Explosive properties	: Not an explosive	EEC A.14	
Oxidizing properties	: Not oxidizing		
Surface tension	: No data available		
Particle Size	: Not applicable		
Other information			
Bulk density g/ml	: Not applicable		

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 Yes.

Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

Conditions to avoid

Conditions to avoid Heat, flames and sparks.

Incompatible materials

Incompatible materials None known based on information supplied.

Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

11. Toxicological 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 425	
Dermal LD50 mg/kg	: > 2000	Rat	OECD 402	
Inhalation LC50 LC50	: > 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	
Sensitization	: Not a skin sensitizer	Guinea pig	OECD 406	

Chronic toxicity

Germ cell mutagenicity

Chemical name
 Bupirimate : Not classified

Carcinogenicity

Chemical name
 Bupirimate : H351 - 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

12. Ecological information

Ecotoxicity

Aquatic toxicity

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Acute toxicity				
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	: No data available			
Crustacea NOEC mg/l	: No data available			
Algae NOEC mg/l	: 1	P.subcapitata	OECD 201	
Other plants NOEC mg/l	: No data available			

Terrestrial Toxicity

Birds Oral LD50 mg/kg

Chemical name			
Bupirimate	: >5000	Japanese quail	

Bees Oral LD50 µg/bee

Chemical name			
Bupirimate	: > 200		Oral

Abiotic Degradation

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

Log Pow

	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Chemical name			
Bupirimate	: 3.68	EEC A.8	pH 7.7 °C

Bioconcentration factor (BCF)

Chemical name			
Bupirimate	:		Not available

Adsorption/Desorption

	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Chemical name			
Bupirimate	: 882 - 2822	OECD 106	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	Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

14. Transport information

ADR

14.1 UN number	UN1993
14.2 UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (n-Butan-1-ol)
14.3 Transport hazard class(es)	3
Labels	3
14.4 Packing group	III
Description	UN1993, FLAMMABLE LIQUID, N.O.S. (n-Butan-1-ol), 3, III, (D/E), Environmentally Hazardous
14.5 Environmental hazard	Yes
14.6 Special Precautions for Users	
Special Provisions	274, 601
Classification code	F1
Tunnel restriction code	(D/E)

RID

14.1 UN number	UN1993
14.2 UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (n-Butan-1-ol)
14.3 Transport hazard class(es)	3
Labels	3
14.4 Packing group	III
Description	UN1993, FLAMMABLE LIQUID, N.O.S. (n-Butan-1-ol), 3, III, Environmentally Hazardous
14.5 Environmental hazard	Yes
14.6 Special Precautions for Users	
Special Provisions	274, 601
Classification code	F1

IMDG

14.1 UN number	UN1993
14.2 UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (n-Butan-1-ol)
14.3 Hazard Class	3
14.4 Packing group	III
Description	UN1993, FLAMMABLE LIQUID, N.O.S. (n-Butan-1-ol), 3, III, (40°C C.C.), Marine pollutant
14.5 Marine pollutant	P
Environmental hazard	Yes
14.6 Special Precautions for Users	
Special Provisions	223, 274, 955
EmS-No	F-E, S-E
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	UN1993
14.2 UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (n-Butan-1-ol)
14.3 Transport hazard class(es)	3
14.4 Packing group	III
Description	UN1993, FLAMMABLE LIQUID, N.O.S. (n-Butan-1-ol), 3, III
14.5 Environmental hazard	Yes
14.6 Special Precautions for Users	
Special Provisions	A3

ERG Code

3L



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
 H315 - Causes skin irritation
 H317 - May cause an allergic skin reaction
 H318 - Causes serious eye damage
 H335 - May cause respiratory irritation
 H336 - May cause drowsiness or dizziness
 H351 - Suspected of causing cancer
 H410 - Very toxic to aquatic life with long lasting effects
 H411 - Toxic to aquatic life with long lasting effects
 H412 - Harmful to aquatic life with long lasting effects

Date of preparation of the SDS No data available

Revision date 11-Dec-2022

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

H226 - Flammable liquid and vapor
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
H336 - May cause drowsiness or dizziness

Classification procedure

Classification based on test data
Classification based on Calculation method
Classification based on test data
Classification based on Calculation method
Classification based on Calculation method
Classification based on Calculation method
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