



SAFETY DATA SHEET

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) Annex II

MCW-5382

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

1.1. Product identifier

MCW-5382

Synonyms Bupirimate 25 EC
Pure substance/mixture Mixture

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

Recommended Use Fungicide
Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Supplier Address ADAMA Makhteshim Ltd
PO Box 60
Beer Sheva 8410001 Israel

For further information, please contact

Email address SDS@ADAMA.COM

1.4. Emergency telephone number

Emergency Telephone +972-03-6106666 Subscription no. 36789 (ADAMA Makhteshim Ltd.)

Section 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

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)
Hazardous to the Aquatic Environment - Chronic Hazard Category 1 - (H410)
Flammable liquids Category 3 - (H226)

2.2. Label elements

Labeling according to Regulation (EC) No. 1272/2008 [CLP]

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

EU Specific Hazard Statements

EUH066 - Repeated exposure may cause skin dryness or cracking
 EUH401 - To avoid risks to human health and the environment, comply with the instructions for use
 EUH208 - Contains Bupirimate. May produce an allergic reaction

Additional phrases for PPP

SP1 - Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).

2.3. Other hazards

No information available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture

Chemical Name	Weight-%	CAS No	EC No	Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	M-Factor	REACH Registration Number
Bupirimate	25-30	41483-43-6	255-391-2	612-288-00-0	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	603-004-00-6	STOT SE 3 (H335) STOT SE 3 (H336) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Acute Tox. 4 (H302) Flam Liq. 3 (H226)		01-2119484630 -38-0001
Hydrocarbons, C10, aromatics, <1% naphthalene	14-17	N/A	918-811-1	-	STOT SE 3 (H336) Asp. Tox. 1 (H304) Aquatic Chronic 2 (H411)		01-2119463583 -34-0005

					(EUH066)	
Hydrocarbons C11-C14, n-alkanes, isoalkanes, cyclics <2% aromatic	8.5-13	N/A	926-141-6	-	Asp. Tox. 1 (H304) (EUH066)	01-2119456620 -43
Benzenesulfonic acid, C10-13-alkyl derivs., calcium salt	2 - 3	90194-26-6	932-231-6	-	Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Chronic 3 (H412)	01-2119560592 -37

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

Section 4: FIRST AID MEASURES

4.1. Description of 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.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms None known

4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

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

Unsuitable Extinguishing Media

No information available.

5.2. Special hazards arising from the substance or mixture

No specific hazard known.

5.3. Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. 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.

6.2. 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.

6.3. Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections

Other Information

See also section 8,13

Section 7: HANDLING AND STORAGE

7.1. 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.

7.2. Conditions for safe storage, including any incompatibilities

Keep tightly closed in a dry and cool place. Keep in properly labeled containers. Keep containers tightly closed in a cool, well-ventilated place.

7.3. 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

8.1. Control parameters

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

8.2. Exposure controls

Engineering Controls	Ensure adequate ventilation, especially in confined areas.
Personal protective equipment	
Eye/face protection	Tight sealing safety goggles.
Hand Protection	Gloves made of plastic or rubber.
Body Protection	Wear fire/flamm 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

9.1. 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	: 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		

9.2. Other information

Bulk density g/ml :
 Surface tension mN/m : Not Applicable

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal processing.

10.4. Conditions to avoid

Heat, flames and sparks.

10.5. Incompatible materials

No information available

10.6. Hazardous decomposition products

None under normal use conditions.

Section 11: TOXICOLOGY INFORMATION

11.1. 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

12.1. Toxicity

Aquatic toxicity

Acute toxicity	Values	Species	Method	Remarks
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

Terrestrial Toxicity

Birds Oral LD50 mg/kg
Chemical Name
Bupirimate : >5000 Japanese quail

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

12.2. Persistence and degradability

Abiotic Degradation	Values	Method	Remarks
Water DT50 days Chemical Name Bupirimate	: 165	SETAC	

Soil DT50 days Chemical Name Bupirimate	: 22-69		
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Biodegradation Chemical Name Bupirimate	: Not readily biodegradable	OECD 301 D	
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12.3. Bioaccumulative potential

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

Bioconcentration factor (BCF) Chemical Name Bupirimate	:		Not available
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12.4. Mobility in soil

Adsorption/Desorption	Values	Method	Remarks
Chemical Name Bupirimate	: 882 - 2822		Koc

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

No information available.

Section 13: DISPOSAL CONSIDERATIONS

13.1. 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

14.1 UN/ID No *	1993
14.2 Proper shipping name	FLAMMABLE LIQUID, N.O.S. (31-34% n-BUTANOL)
14.3 Hazard Class	3
14.4 Packing Group	III
14.5 Marine pollutant	Yes
14.6 Special precautions for user	

RID/ADR

14.1 UN/ID No *	1993
14.2 Proper shipping name	FLAMMABLE LIQUID, N.O.S. (31-34% n-BUTANOL)
14.3 Hazard Class	3
14.4 Packing Group	III
14.5 Environmental hazard	Yes
14.6 Special precautions for user	
14.7 Tunnel restriction code	D/E

ICAO/IATA

14.1 UN/ID No *	1993
14.2 Proper shipping name	FLAMMABLE LIQUID, N.O.S. (31-34% n-BUTANOL)
14.3 Hazard Class	3
14.4 Packing Group	III
14.5 Environmental hazard	Yes
14.6 Special precautions for user	
14.7 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

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

15.2. Chemical safety assessment

A chemical safety assessment according to regulation (EC) No. 1907/2006 is not required. A risk assessment was performed according to directive (EC) No. 91/414 or according to regulation (EC) No. 1107/2009.

Section 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 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
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
H411 - Toxic to aquatic life with long lasting effects
H412 - Harmful to aquatic life with long lasting effects
EUH066 - Repeated exposure may cause skin dryness or cracking

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

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

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

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