SAFETY DATA SHEET

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

Mavrik

Revision date 10-Feb-2023 **Version** 1 **Supersedes Date:** 10-Feb-2023 **Product Code(s)** INS00027-44
Print Date 10-Feb-2023 ADM.04250.I.1.B 9500525

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Mavrik

Other means of identification
Pure substance/mixture Mixture
Formulation type EW

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

Recommended use Insecticide; Professional use
Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Supplier
ADAMA Agricultural Solutions UK Ltd
Third Floor East
1410 Arlington Business Park
Theale
READING
RG7 4SA
Tel: 01635 860555
Fax: 01635 861555
For further information, please contact

E-mail address ukenquiries@adama.com

1.4. Emergency telephone number

Emergency Telephone National Chemical Emergency Centre (UK):
Tel: 01865 407333 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Acute aquatic toxicity	Category 1 - (H400)
Chronic aquatic toxicity	Category 1 - (H410)

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]
Hazard pictograms

Signal word Warning

Hazard statements H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements P102 - Keep out of reach of children
P501 - Dispose of contents/ container to an approved waste disposal plant

EU Specific Hazard Statements EUH401 - To avoid risks to human health and the environment, comply with the instructions for use

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

PBT & vPvB The product does not contain any substance(s) classified as PBT or vPvB.

Endocrine Disruptor Information None known.

Persistent Organic Pollutants Not applicable.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	CAS No	EC No	Index No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	REACH Registration Number
Tau fluvalinate	102851-06-9	-	607-238-00-X	20 - 24	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)		M = 1000 M = 1000	No data available
Hydrocarbons, C9, aromatics	-	918-668-5		3 - 4	Flam. Liq. 3 (H226) STOT SE 3 (H335) STOT SE 3 (H336) Asp. Tox. 1			01-2119455851-35

					(H304) Aquatic Chronic 2 (H411) (EUH066)			
Methanol	67-56-1	200-659-6	603-001-00-X	0.2 - 0.5	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) STOT SE 1 (H370) Flam. Liq. 2 (H225)	STOT SE 1 :: C>=10% STOT SE 2 :: 3%<=C<10%		No data available

Acute toxicity estimates (ATEs) according to Part 3 of Annex VI to Regulation (EC) No 1272/2008 are indicated in this table, if available.

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

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation Remove to fresh air.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor.

Skin contact In the case of skin irritation or allergic reactions see a doctor. Wash skin with soap and water.

Ingestion Clean mouth with water and drink afterwards plenty of water.

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 doctors Treat symptomatically.

SECTION 5: Firefighting measures

5.1. 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.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical No information available.

5.3. Advice for firefighters

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

6.3. 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 Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Ensure adequate ventilation.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	United Kingdom
Propane-1,2-diol 57-55-6	TWA: 150 ppm TWA: 474 mg/m^3 TWA: 10 mg/m^3

	STEL: 450 ppm STEL: 1422 mg/m³ STEL: 30 mg/m³
Methanol 67-56-1	TWA: 200 ppm TWA: 266 mg/m³ STEL: 250 ppm STEL: 333 mg/m³ Sk*

Derived No Effect Level (DNEL) No information available.
Predicted No Effect Concentration (PNEC) No information available.

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 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).

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.

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

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.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Property		Values	Method	Remarks
Appearance				
Physical state	:	Liquid		
Colour	:	Grey to white		
Odour	:	Slight		
Odour threshold	:	No data available		
pH	:	5-6	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	:	>95	92/69/EEC A.9	Not determined
Evaporation rate	:	No data available		
Flammability (solid, gas)	:	Not applicable		
Upper/lower flammability or explosive limits	:	No data available		
Vapour pressure kPa	:	No data available		
Vapour density	:	No data available		
Relative density	:	1.08-1.10	EEC A.3	
Solubility(ies) mg/l	:	No data available		
Partition coefficient Log Pow	:			See Section 12 for additional

				Ecological Information
Autoignition temperature °C	:	455	92/69/EEC A.15	
Decomposition temperature °C	:	No data available		
Kinematic viscosity mm2/s 40 °C	:	257.4		20°C
Surface tension	:	----		No data available
Particle Size	:	Not applicable		

9.2. Other information

Bulk density g/ml : ----

9.2.1. Information with regards to physical hazard classes
Explosive properties : Not an explosive
Oxidising properties : No data available

9.2.2. Other safety characteristics
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

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

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

		Values	Species	Method	Remarks
Oral LD50 mg/kg	:	2020	Rat	EPA 1978	
Dermal LD50 mg/kg	:	>2100	Rabbit	EPA 1978	
Inhalation LC50 mg/l	:	>2.94	Rat	OECD 403	Maximum attainable

concentration

Skin corrosion/irritation	: Non-irritating to the skin	Rabbit	EPA OPTS	
Serious eye damage/eye irritation	: Not irritating to eyes	Rabbit	EPA OPTS	
Sensitisation	: Not a skin sensitiser	Guinea pig	OECD 406	

Chronic toxicity

Germ cell mutagenicity
Chemical name
Tau fluvalinate : Not classified

Carcinogenicity .
Chemical name
Tau fluvalinate : Not Carcinogenic

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

STOT - Single Exposure
Chemical name
Tau fluvalinate : No data available

STOT - Repeated Exposure
Chemical name
Tau fluvalinate : No data available

Aspiration hazard
Chemical name
Tau fluvalinate : No data available

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties
Endocrine disrupting properties No information available.

11.2.2. Other information
Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Acute toxicity		**Values**	**Species**	**Method**	**Remarks**
Fish 96-hour LC50 mg/l	:	>0.01	Oncorhynchus mykiss	OECD 203	Static
Crustacea 48-hour EC50 mg/l	:	0.00259	Daphnia magna	USEPA 660/3	
Algae 72-hour EC50 mg/l	:	42	Scenedesmus subspicatus	OECD 201	
Other plants EC50 mg/l	:	No data available			No data available

Chronic aquatic toxicity		**Values**	**Species**	**Method**	**Remarks**
Fish NOEC mg/l	:	0.5 X 10^-6	Pimephales promelas		
Crustacea NOEC mg/l	:	0.033 X 10^-6	Mesocosm		
Algae NOEC mg/l	:	No data available			
Other plants NOEC mg/l	:	No data available			

Terrestrial Toxicity
Birds Oral LD50 mg/kg
Chemical name

Tau fluvalinate	: >455		

Bees Oral LD50 µg/bee
Chemical name

Tau fluvalinate	: 12.6	OECD 213 OECD 214	

12.2. Persistence and degradability

Abiotic Degradation
Water DT50 days
Chemical name

Tau fluvalinate	: 1.96	EPA-FIFRA 162-4	

Soil DT50 days
Chemical name

Tau fluvalinate	: 31		

Biodegradation
Chemical name

Tau fluvalinate	: Not readily biodegradable		

12.3. Bioaccumulative potential

Partition Coefficient (n-octanol/water) Log Pow	**Values**	**Method**	**Remarks**
Chemical name			
Tau fluvalinate	: 7.02		

Bioconcentration factor (BCF)
Chemical name

Tau fluvalinate	: 1979		

12.4. Mobility in soil

Adsorption/Desorption	**Values**	**Method**	**Remarks**
Chemical name			
Tau fluvalinate	: 750746		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. Endocrine disrupting properties

Endocrine disrupting properties No information available.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment 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.

Other information Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

ADR

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

RID

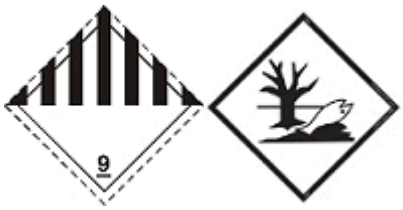
14.1 UN number	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tau fluvalinate)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tau fluvalinate), 9, III
Environmental hazard	Yes
Special Precautions for Users	
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. (Tau fluvalinate)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tau fluvalinate), 9, III, Marine pollutant
14.5 Environmental hazard	Yes
14.6 Special Precautions for Users	
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 No information available
14.7 Maritime transport in bulk according to IMO instruments	No information available

IATA

14.1 UN number	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tau fluvalinate)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tau fluvalinate), 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

SECTION 15: Regulatory information

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

National regulations

Trade name / designation	Registration Number(s)	Date
Not Applicable	Not Applicable	Not Applicable

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Authorisations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
Methanol - 67-56-1	69.	

Persistent Organic Pollutants

Not applicable

15.2. Chemical safety assessment

Chemical Safety Report A risk assessment was performed according to directive (EC) No. 91/414 or according to regulation (EC) No. 1107/2009

SECTION 16: Other information

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

Full text of H-Statements referred to under section 3

EUH066 - Repeated exposure may cause skin dryness or cracking
H225 - Highly flammable liquid and vapour
H226 - Flammable liquid and vapour
H301 - Toxic if swallowed
H302 - Harmful if swallowed
H304 - May be fatal if swallowed and enters airways
H311 - Toxic in contact with skin

H315 - Causes skin irritation
H331 - Toxic if inhaled
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness
H370 - Causes damage to organs
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H411 - Toxic to aquatic life with long lasting effects

Legend
SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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

Revision date 10-Feb-2023

Reason for revision SDS sections updated

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

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

Classification of the mixture	Classification procedure
H400 - Very toxic to aquatic life	Classification based on test data
H410 - Very toxic to aquatic life with long lasting effects	Classification based on test data

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

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