



Metamidofos

Safety Data Sheet

GHS classification and labelling of chemicals – SANS10234 and the Regulations for Hazardous Chemical Agents - 2021.
Issue date: 04/24/2023 Date of revision: 04/24/2026 Version: 2.0

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

1.1. Product identifier

Product form : Mixture
Name : Metamidofos
Trade name : Metamidofos
Product code : UPL_L4531

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : For agricultural, industrial and professional use only.
Use of the substance/mixture : A systemic and contact water soluble concentrate insecticide for the control of insect pests on agricultural crops as indicated.
Main use category : Insecticide

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

UPL South Africa (Pty) Ltd.
Sunbury Office Park (off Douglas Saunders Drive) 7
La Lucia Ridge
P.O. Box 1726, Mount Edgecombe, 4300
4019 Durban - South Africa
T +27 31 514 5600

1.4. Emergency telephone number

Emergency number : Griffon Poison Information Centre: 082 4468946,
Poisons Information Helpline: 0861 555 777,
In case of Spillage: Spill Tech: 086 100 0366 / 083 253 6618

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to SANS10234 and the Regulations for Hazardous Chemical Agents - 2021.

Flammable liquids, Category 2	H225
Acute toxicity (oral), Category 2	H300
Acute toxicity (dermal), Category 1	H310
Acute toxicity (inhalation:dust,mist) Category 2	H330
Serious eye damage/eye irritation, Category 2	H319
Specific target organ toxicity — Single exposure, Category 3, Narcosis	H336
Hazardous to the aquatic environment — Acute Hazard, Category 1	H400

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to SANS10234 and the Regulations for Hazardous Chemical Agents - 2021

Hazard pictograms :   

GHS02 GHS06 GHS09

Signal word : Danger

Hazardous ingredients : Methamidophos; propan-2-ol; isopropyl alcohol; isopropanol

Hazard statements : H225 - Highly flammable liquid and vapour.
H300+H330 - Fatal if swallowed or if inhaled.
H310 - Fatal in contact with skin.
H319 - Causes serious eye irritation.
H336 - May cause drowsiness or dizziness.
H400 - Very toxic to aquatic life.

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Precautionary statements

: P101 – If medical advice is needed, have product container or label at hand.
P102 – Keep out of reach of children
P103 – Read carefully and follow all instructions.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.
P240 – Ground and bond container and receiving equipment.
P241 - Use explosion-proof equipment.
P242 - Use only non-sparking tools.
P243 – Take action to prevent static discharges.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P262 – Do not get in eyes, on skin or on clothing.
P264+P265 – Wash hands thoroughly after handling. Do not touch eyes.
P270 – Do not eat, drink or smoke when using this product.
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.
P284 – [In case of inadequate ventilation] wear respiratory protection.
P301+P316 – IF SWALLOWED: Get emergency medical help immediately. Call a Poison Centre.
P302+P352 – IF ON SKIN: Wash with plenty of water.
P303+P361+P353 – IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water [or shower].
P304+P340 – IF INHALED: Remove person to fresh air and keep 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.
P316 – Get emergency medical help immediately.
P321 – Specific treatment (see first aid treatment on this label).
P319 – Get medical help if you feel unwell.
P330 – Rinse mouth.
P337+P317 – If eye irritation persists: Get medical help.
P361+P364 – Take off immediately all contaminated clothing and wash it before reuse.
P370+P378 - In case of fire: Use media other than water to extinguish.
P391 - Collect spillage.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 – Store lock up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to SANS10234 and the Regulations for Hazardous Chemical Agents - 2021.
Methamidophos	(CAS-No.) 10265-92-6 (EC-No.) 233-606-0 (EC Index-No.) 015-095-00-4	50 - 80	Acute Tox. 2 (Oral), H300 Acute Tox. 2 (Dermal), H310 Acute Tox. 2 (Inhalation), H330 Acute Tox. 2 (Inhalation:dust,mist), H330 Aquatic Acute 1, H400
Isopropanol	(CAS-No.) 67-63-0 (EC-No.) 200-661-7 (EC Index-No.) 603-117-00-0 (REACH-no) 01-2119457558-25	25 - 50	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general

: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation

: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. Call a POISON CENTER/doctor if you feel unwell.

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First-aid measures after skin contact	: Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER/doctor. Wash with plenty of water/.... Wash contaminated clothing before reuse.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Fatal if swallowed. Immediately call a POISON CENTER/doctor.

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

Symptoms/effects after inhalation	: Fatal if inhaled. May cause drowsiness or dizziness.
Symptoms/effects after skin contact	: Repeated exposure to this material can result in absorption through skin causing significant health hazard. Fatal in contact with skin.
Symptoms/effects after eye contact	: Causes serious eye irritation.
Symptoms/effects after ingestion	: Fatal if swallowed.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Highly flammable liquid and vapour.
Explosion hazard	: May form flammable/explosive vapour-air mixture.

5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.
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6.1.1. For non-emergency personnel

Emergency procedures	: Evacuate unnecessary personnel.
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6.1.2. For emergency responders

Protective equipment	: Equip cleanup crew with proper protection. Avoid breathing dust/fume/gas/mist/vapours/spray.
Emergency procedures	: Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.
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6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	: Handle empty containers with care because residual vapours are flammable.
Precautions for safe handling	: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. No open flames. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Do not breathe dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapours/spray.
Hygiene measures	: Do not eat, drink or smoke when using this product. Wash hands, forearms and face thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment.
Storage conditions	: Keep only in the original container in a cool, well ventilated place away from : Keep container tightly closed.
Incompatible products	: Strong bases. Strong acids.

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Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

propan-2-ol; isopropyl alcohol; isopropanol (67-63-0)

Austria - Occupational Exposure Limits

Local name	2-Propanol Kurzzeitwert für Großguss
MAK (mg/m ³)	500 mg/m ³
MAK (ppm)	200 ppm
MAK Short time value (mg/m ³)	2000 mg/m ³
MAK Short time value (ppm)	800 ppm
Regulatory reference	BGBl. II Nr. 186/2015

United Kingdom - Occupational Exposure Limits

Local name	Propan-2-ol
WEL TWA (mg/m ³)	999 mg/m ³
WEL TWA (ppm)	400 ppm
WEL STEL (mg/m ³)	1250 mg/m ³
WEL STEL (ppm)	500 ppm
Regulatory reference	EH40/2005 (Third edition, 2018). HSE

8.2. Exposure controls

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Wear protective gloves.

Eye protection:

Chemical goggles or safety glasses

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection. Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Clear yellowish.
Odour	: Strong chemical odour.
Odour threshold	: No data available
pH	: 7
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 11.5 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Highly flammable liquid and vapour.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 1.15 ± 0,05 g/ml

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Solubility	: Soluble in water
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Highly flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Fatal if swallowed.
Acute toxicity (dermal)	: Fatal in contact with skin.
Acute toxicity (inhalation)	: Fatal if inhaled.

Metamidofos 585 SL

ATE (oral)	21.178 mg/kg bodyweight
ATE (dermal)	29.842 mg/kg bodyweight
ATE (dust,mist)	0.347 mg/l/4h

Methamidophos (10265-92-6)

LD50 oral rat	13 mg/kg
LD50 dermal rabbit	60 mg/kg
LC50 inhalation rat (mg/l)	0.213 mg/l/4h

propan-2-ol; isopropyl alcohol; isopropanol (67-63-0)

LD50 oral rat	5840 mg/kg
LD50 dermal rabbit	16.4 ml/kg
LC50 inhalation rat (ppm)	> 9000 mg/L (4 h)

Skin corrosion/irritation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-single exposure	: May cause drowsiness or dizziness.
STOT-repeated exposure	: Not classified

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Additional information	: Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Potential adverse human health effects and symptoms	: Fatal in contact with skin. Fatal if swallowed. Fatal if inhaled.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water	: Very toxic to aquatic life.
Hazardous to the aquatic environment, short-term (acute)	: Very toxic to aquatic life.
Hazardous to the aquatic environment, long-term (chronic)	: May cause long lasting effects to aquatic life

Methamidophos (10265-92-6)

LC50 fish	5.6 mg/l
EC50 Daphnia	0.27 mg/l
ErC50 (algae)	> 178 mg/l

propan-2-ol; isopropyl alcohol; isopropanol (67-63-0)

LC50 fish	9640 - 10000 mg/l (96 Hours)
LC50, aquatic invertebrates	> 10000 mg/l (24 Hours)
LC3, algae	1800 mg/l (7 days)

12.2. Persistence and degradability

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Persistence and degradability	Not established.
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12.3. Bioaccumulative potential

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Bioaccumulative potential	Not established.
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propan-2-ol; isopropyl alcohol; isopropanol (67-63-0)

Log Pow	0.05 (25 °C)
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12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Additional information	: Avoid release to the environment.
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
Additional information	: Handle empty containers with care because residual vapours are flammable.
Ecology - waste materials	: Hazardous waste due to toxicity. Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA
14.1. UN number		
UN 3017	UN 3017	UN 3017
14.2. UN proper shipping name		
ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE	Organophosphorus pesticide, liquid, toxic, flammable

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Transport document description

UN 3017 ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE, 6.1 (3), III, (D/E), ENVIRONMENTALLY HAZARDOUS	UN 3017 ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE, 6.1 (3), III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS (23°C c.c.)	UN 3017 Organophosphorus pesticide, liquid, toxic, flammable, 6.1, III, ENVIRONMENTALLY HAZARDOUS
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14.3. Transport hazard class(es)

6.1 (3)	6.1 (3)	6.1 (3)
		

14.4. Packing group

III	III	III
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14.5. Environmental hazards

Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes
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No supplementary information available

14.6. Special precautions for user

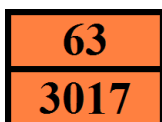
Overland transport

Hazard identification number (Kemler No.)

: 63

Orange plates

:



14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

Regulatory Information:

Relevant regulatory information regarding authorization, Safety Data Sheets, Occupational Exposure Limits, Hazardous Substances, Dangerous Goods Transport and Waste South Africa: Occupational Health and Safety Act 1993. Regulations for Hazardous Chemical Agents - 2021. Fertilizer, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act 36 of 1947). Hazardous Substances Act, 1973 (Act No.15 of 1973). Regulations for Hazardous Chemical Agents – 2021. SANS11014:2010. Safety Data Sheet for Chemical Products – Content and Order of Sections. SANS10206: 2020. The Handling, Storage and Disposal of Pesticides. National Road Traffic Act, 1996 (Act No. 93 of 1996). SANS 10228:2012- The identification and classification of dangerous goods for transport by road and rail modes. National Environmental Management: waste Act 59 of 2008 .

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Data sources : ECHA, Pesticide manual, Supplier SDS.

Other information : None.

Full text of H- statements:

Acute Tox. 2 (Dermal)	Acute toxicity (dermal), Category 2
Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2
Acute Tox. 2 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 2
Acute Tox. 2 (Oral)	Acute toxicity (oral), Category 2
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2

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Flam. Liq. 2	Flammable liquids, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H225	Highly flammable liquid and vapour.
H300	Fatal if swallowed.
H310	Fatal in contact with skin.
H311	Toxic in contact with skin.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.

Classification and procedure used to derive the classification for the mixture according to the UN GHS Purple Book (Rev.9, 2021):

Flam. Liq. 2	H225	On basis of test data
Acute Tox. 2 (Oral)	H300	Calculation method
Acute Tox. 3 (Dermal)	H311	Calculation method
Acute Tox. 2 (Inhalation:dust,mist)	H330	Calculation method
Eye Irrit. 2	H319	Calculation method
STOT SE 3	H336	Calculation method
Aquatic Acute 1	H400	Calculation method

Safety Data Sheet (SDS)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.