

FarmAg Methomyl 90 SP (methomyl 90 g/kg)

Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 8
Issue date: 8/30/2022 Version: 1.0

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

1.1. GHS product identifier

Product form	: Mixture
Trade name	: FarmAg Methomyl 90 SP (methomyl 90 g/kg)
Type of product	: Insecticide
CAS-No.	: 16752-77-5
Product group	: End product

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Use of the substance or mixture	: A water soluble, contact insecticide for the control of various insects on crops as listed
Restricted use	: This remedy is restricted due to acute toxicity. This remedy may only be sold to and used by a registered pest control operator, or by someone under the supervision of a registered pest control operator, and only for those uses covered by the pest control operator's scope of registration, and only as directed on the label.

SECTION 2: Hazard identification


2.1. GHS classification of the substance/mixture and any national or regional information

Classification according to the United Nations GHS

Acute toxicity (oral), Category 2	H300
Acute toxicity (dermal), Category 3	H311
Acute toxicity (inhalation:dust,mist) Category 2	H330
Skin corrosion/irritation, Category 3	H316
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	: Fatal if inhaled,Fatal if swallowed,Harmful in contact with skin,Causes mild skin irritation,Very toxic to aquatic life.

2.2. GHS label elements, including precautionary statements

Labelling according to the United Nations GHS

Hazard pictograms (GHS ZA)	: 
Signal word (GHS-ZA)	: Danger
Hazardous ingredients	: Methomyl 98% TC
Hazard statements (GHS ZA)	: H300+H330 - Fatal if swallowed or if inhaled H311 - Toxic in contact with skin H316 - Causes mild skin irritation H400 - Very toxic to aquatic life
Precautionary statements (GHS ZA)	: 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. P260 - Do not breathe dust. P264 - Wash hands, forearms and face thoroughly after handling. 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.

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P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P284 - In case of inadequate ventilation wear respiratory protection..
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310 - Immediately call a POISON CENTER or doctor.
P312 - Call a POISON CENTER or doctor if you feel unwell.
P320 - Specific treatment is urgent (see supplemental first aid instruction on this label).
P330 - Rinse mouth.
P332+P313 - If skin irritation occurs: Get medical advice/attention
P361+P364 - Take off immediately all contaminated clothing and wash it before reuse.
P391 - Collect spillage.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P501 - Dispose of contents and container to an approved waste disposal plant.

SECTION 3: Composition/information on ingredients

Mixture

Name	Product identifier	%	Classification according to the United Nations GHS
Methomyl 98% TC	CAS-No.: 16752-77-5	≥ 90 – < 95	Acute Tox. 2 (Oral), H300 Acute Tox. 3 (Dermal), H311 Acute Tox. 2 (Inhalation:dust,mist), H330 Aquatic Acute 1, H400 (M=10) Aquatic Chronic Not classified
sodium-2-naphthalenesulfonate	CAS-No.: 532-02-5	≥ 1 – < 5	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Aquatic Acute Not classified

SECTION 4: First aid measures

4.1. Description of necessary first aid measures

First-aid measures general

: Proper care should be taken during occupational use to avoid any contact or inhalation of spray particles or dust, and to prevent accidental contamination of food products and water.
Carbamate: Cholinesterase inhibitor.

The first effects are usually respiratory and may include nasal hyperemia and watery discharge, chest discomfort, dyspnea, and wheezing due to increased bronchial secretions and bronchoconstriction. Other systemic effects may begin within a few minutes or several hours of exposure. Symptoms may include nausea, vomiting, diarrhea, abdominal cramps, headache, vertigo, tightness of the chest, anxiety, ocular pain, ciliary muscle spasm, blurring or dimness of vision, miosis, or in some cases mydriasis, lacrimation, salivation, sweating, and confusion.

In severe cases, there may also be involuntary defecation and urination, bradycardia, hypotension, pulmonary oedema, convulsions, coma, and death from respiratory failure or cardiac arrest.

Does not accumulate in mammalian tissue and the cholinesterase inhibition reverses rather rapidly. In non-fatal cases, the illness generally lasts less than 24 hours.

First-aid measures after inhalation

: Remove from exposure area to fresh air immediately. If breathing has stopped, give mechanical artificial respiration (not direct mouth-to-mouth). Maintain airway and blood pressure and administer oxygen if available. Keep affected person warm and at rest. Treat symptomatically and supportively. Qualified personnel should perform administration of oxygen. Get medical attention immediately.

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First-aid measures after skin contact	: Remove contaminated clothing immediately. Wash contaminated areas with soap and water followed by alcohol. Emergency personnel should wear gloves and avoid contamination. Treat respiratory difficulty with mechanical artificial respiration. Get medical attention immediately.
First-aid measures after eye contact	: Flush eyes with lukewarm, gently flowing water for at least 20 minutes or until the product is removed, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. If symptoms of poisoning occur, treat respiratory difficulty with mechanical artificial respiration and oxygen. Observe patient for at least 24 to 36 hours. Get medical attention immediately. Qualified medical personnel should administer oxygen.
First-aid measures after ingestion	: If swallowed, rinse mouth thoroughly with water and immediately get medical attention. If person is alert and respiration is not depressed, give syrup of Ipecac followed by water or activated charcoal if instructed. If vomiting occurs, keep head below hips to prevent aspiration. Establish and maintain airway. Treat respiratory difficulty with artificial respiration and oxygen. Apply mouth-to-nose respiration. Qualified medical personnel should administer oxygen. Do not give anything by mouth to an unconsciousness person. Take the person to a physician immediately.

4.2. Most important symptoms/effect, acute and delayed

Symptoms/effects after inhalation	: Highly toxic after inhalation.
Symptoms/effects after skin contact	: Toxic in contact with skin.
Symptoms/effects after eye contact	: May cause moderate pain, redness or tears.
Symptoms/effects after ingestion	: Toxic if swallowed.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

If consciousness level declines or vomiting has not occurred in 15 minutes, empty stomach by gastric lavage with the aid of cuffed endotracheal tube using isotonic saline or 5 % sodium bicarbonate followed with activated charcoal. Establish and maintain airway. Treat respiratory difficulty with artificial respiration and oxygen.

Do not give morphine, aminophylline, phenothiazines, reserpine, furosemide, or ethacrynic acid.

Pralidoxime (2-PAM, Protopam) and other oximes are contra-indicated and they should not be used.

Antidote:

Establish clear airway and tissue oxygenation by aspiration of secretions, and if necessary, by assisted pulmonary ventilation with oxygen. Administer atropine sulphate intravenously or intramuscularly if intra venous injection is not possible. In moderately severe poisoning administer atropine sulphate, 0,4 to 2,0 mg repeated every 15 minutes, until atropinization is achieved (tachycardia, flushing, dry mouth, mydriasis). Maintain atropinization by repeated doses for 2 to 12 hours, or longer, depending on the severity of poisoning.

Severely poisoned individuals may exhibit remarkable tolerance to atropine. Two or more times the dosages suggested above may be needed. Observe treated patients closely at least 24 hours to ensure that symptoms (possibly pulmonary oedema) do not recur as atropinisation wears off. In very severe poisonings, metabolic disposition of toxicant may require several hours or days during which atropinisation must be maintained. Markedly lower levels of urinary metabolites indicate that atropine dosage can be tapered off. As dosage is reduced, check the lung bases frequently for rales. If rales are heard or other symptoms return, re-establish atropinisation promptly.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam.
Unsuitable extinguishing media	: Water spray as a fog can be used for cooling of unaffected stock, but avoid water coming in contact with the product. Contain water used for fire-fighting for later disposal. Avoid the accumulation of polluted run-off from the site.

5.2. Specific hazards arising from the chemical

Fire hazard	: Slight fire hazard when exposed to heat or flame.
Explosion hazard	: Dust-air mixtures may ignite or explode.
Hazardous decomposition products in case of fire	: Decomposes in fire to emit very toxic fumes of NO ₂ and SO ₂ .

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5.3. Special protective actions for fire-fighters

- Firefighting instructions : Contain fire control agents for later disposal. Use a recommended extinguishing agent for the type of surrounding fire. Avoid inhaling hazardous vapours. Keep upwind. Consider evacuation of downwind area if material is leaking.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
- Personal protection (Emergency response) : Wear respiratory protection, Wear protective gloves, Wear protective clothing, Wear eye protection, Wear a face shield



SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- Personal Precautions, Protective Equipment and Emergency Procedures : Avoid contact with skin and eyes. Do not breathe in dust or fumes.

6.1.1. For non-emergency personnel

- Emergency procedures : Do not breathe dust/fume/gas/mist/vapours/spray. Only qualified personnel equipped with suitable protective equipment may intervene.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Do not allow entering drains or watercourses. Spillage or uncontrolled discharges into water courses (or public waters) to be reported immediately to the Departments of Water or Environmental Affairs.

6.3. Methods and materials for containment and cleaning up

- For containment : Collect spillage.
- Methods for cleaning up : Do not flush with water. For dry spills, preferably vacuum with an industrial vacuum cleaner with a 0,3 m filter, or sweep up with damp earth or sand or other suitable absorbent, taking care not to raise a dust cloud. In situations where product comes in contact with water, contain contaminated water for later disposal. Do not flush spilled material into drains. Keep spectators away.
- Other information : Dispose of materials or solid residues at an authorized site.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Toxic if swallowed. Avoid contact with eyes and skin, and inhalation of dust and vapour. Use with adequate ventilation. Wash hands before eating, drinking, chewing gum, smoking, or using the toilet. Operators should change and wash clothing daily. Remove clothing immediately if the insecticide gets inside. Then wash skin thoroughly using a non-abrasive soap and put on clean clothing. Do not apply directly to areas where surface water is present, or to intertidal areas below the mean high water mark. Water used to clean equipment must be disposed of correctly to avoid contamination.
- Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.
- Storage area : Store in a dark area. Store in a dry area.
- Information on mixed storage : KEEP SUBSTANCE AWAY FROM: Water supplies. Food supplies.

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Maximum storage period : 2 years

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Methomyl 98% TC (16752-77-5)

South Africa - Occupational Exposure Limits (Airborne Pollutants)

Local name	Methomyl
OEL TWA	3 mg/m ³
Regulatory reference	Government Notice No. R 904

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment

Hand protection : Protective gloves
Eye protection : Safety glasses
Skin and body protection : Wear suitable protective clothing
Respiratory protection : [In case of inadequate ventilation] wear respiratory protection.

Personal protective equipment symbol(s)



8.4. Exposure limit values for the other components

No additional information available

SECTION 9: Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state : Solid
Appearance : Powder.
Colour : No data available
Odour : Characteristic odour.
Odour threshold : No data available
pH : 6.8
pH solution : No data available
Relative evaporation rate (butylacetate=1) : No data available
Relative evaporation rate (ether=1) : No data available
Melting point : No data available
Freezing point : Not applicable
Boiling point : No data available
Flash point : Not applicable
Auto-ignition temperature : Not applicable
Decomposition temperature : No data available
Flammability : Not flammable
Vapour pressure : No data available
Vapour pressure at 50°C : No data available
Relative vapour density at 20°C : No data available
Relative density : No data available
Relative density of saturated gas/air mixture : No data available

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Density	: 1.295 g/l 20°C
Relative gas density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Partition coefficient n-octanol/water (Log Kow)	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: Not applicable
Lower explosion limit	: No data available
Upper explosion limit	: No data available
Physical state	: Solid
Appearance	: Powder.

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10: Stability and Reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical Stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

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ATE ZA (oral)	33.316 mg/kg bodyweight
ATE ZA (Dermal)	612.031 mg/kg bodyweight
ATE ZA (dust, mist)	0.287 mg/l/4h
Unknown acute toxicity (GHS ZA)Unknown acute toxicity (GHS ZA)	6.2% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 6.2% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 10% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

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LD50 oral rat	34 mg/kg (Rat, Male, Oral)
LD50 oral	30 mg/kg (Rat, female, Oral)
LD50 dermal rat	> 2000 mg/kg (Rat, Dermal)
LD50 dermal rabbit	556 mg/kg (Rabbit, Dermal)
LC50 Inhalation - Rat (Dust/Mist)	0.258 mg/l/4h (4 h, Rat, Inhalation)

calcium carbonate (471-34-1)	
LD50 oral rat	> 2000 mg/kg (OECD 420: Acute Oral toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 3 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 15 day(s))

silica, precipitated (112926-00-8)	
LD50 oral rat	> 5000 mg/kg (Rat, Oral)

Skin corrosion/irritation	: No skin irritation pH: 6.8
Serious eye damage/irritation	: Slight eye irritant pH: 6.8
Respiratory or skin sensitisation	: Non-sensitising to guinea pig skin
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

FarmAg Methomyl 90 SP (methomyl 90 g/kg) (16752-77-5)	
Viscosity, kinematic	Not applicable

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: 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)	: Not classified

Methomyl 98% TC (16752-77-5)	
LC50 - Fish [1]	0.72 mg/l (96 h, Lepomis macrochirus)
LC50 - Fish [2]	2.49 mg/l (96 h, rainbow trout)
EC50 - Crustacea [1]	0.0317 mg/l (48 h, Daphnia magna, Hard water)
EC50 96h - Algae [2]	60 mg/l
NOEC chronic algae	6.25 mg/l
Additional data	Earthworm: LC50: 19 mg/kg Birds: Northern bobwhite quail 24.2 mg/kg, LC50 Mallard duck 1780 mg/kg diet. Bees: 0.28 ug/bee (oral); 0.16 ug/bee (contact).

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calcium carbonate (471-34-1)	
LC50 - Fish [1]	> 100 % (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Semi-static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	> 100 % (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 algae	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)

sodium-2-naphthalenesulfonate (532-02-5)	
LC50 - Fish [1]	105000 mg/l (96 h, Static system, Fresh water, Calculated value)
EC50 - Crustacea [1]	49421.05 mg/l (48 h, Daphnia magna, Static system, Fresh water, Calculated value)
EC50 72h - Algae [1]	4767.52 mg/l (Pseudokirchneriella subcapitata, Static system, Fresh water, Calculated value)

12.2. Persistence and degradability

FarmAg Methomyl 90 SP (methomyl 90 g/kg) (16752-77-5)	
Persistence and degradability	No additional information available

Methomyl 98% TC (16752-77-5)	
Persistence and degradability	Not readily biodegradable in water.

calcium carbonate (471-34-1)	
Persistence and degradability	Biodegradability in soil: not applicable. Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

sodium-2-naphthalenesulfonate (532-02-5)	
Persistence and degradability	Not readily biodegradable in water.

silica, precipitated (112926-00-8)	
Persistence and degradability	Biodegradability in soil: not applicable. Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

12.3. Bioaccumulative potential

FarmAg Methomyl 90 SP (methomyl 90 g/kg) (16752-77-5)	
Bioaccumulative potential	No additional information available

Methomyl 98% TC (16752-77-5)	
Partition coefficient n-octanol/water (Log Kow)	1.24 25°C
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

calcium carbonate (471-34-1)	
Bioaccumulative potential	Not bioaccumulative.

sodium-2-naphthalenesulfonate (532-02-5)	
BCF - Fish [1]	3.162 l/kg (Calculated value)
Partition coefficient n-octanol/water (Log Kow)	0.01 (Calculated)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

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silica, precipitated (112926-00-8)

Bioaccumulative potential : No bioaccumulation data available.

12.4. Mobility in soil

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Mobility in soil : No additional information available

calcium carbonate (471-34-1)

Surface tension : No data available (test not performed)

Ecology - soil : Low potential for adsorption in soil.

sodium-2-naphthalenesulfonate (532-02-5)

Organic Carbon Normalized Adsorption Coefficient (Log Koc) : 2.02 (log Koc, Calculated value)

Ecology - soil : Low potential for adsorption in soil.

silica, precipitated (112926-00-8)

Ecology - soil : No (test) data on mobility of the substance available.

12.5. Other adverse effects

Ozone : Not classified

Other adverse effects : No additional information available




SECTION 13: Disposal Considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with SANS / IMDG / IATA

SANS	IMDG	IATA
14.1. UN number		
2757	2757	2757
14.2. UN Proper Shipping Name		
CARBAMATE PESTICIDE, SOLID, TOXIC (contains methomyl 90 g/kg)	CARBAMATE PESTICIDE, SOLID, TOXIC (contains methomyl 90 g/kg)	Carbamate pesticide, solid, toxic (contains methomyl 90 g/kg)
14.3. Transport hazard class(es)		
6.1	6.1	6.1
		
14.4. Packing group, if applicable		
I	I	I
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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SANS	IMDG	IATA
No supplementary information available		

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

No additional information available

SECTION 16: Other information

Issue date : 30/08/2022

Safety Data Sheet (SDS), South Africa (HCA)

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.