

SAFETY DATA SHEET

METHOS

Reg. No. / Nr L11114 Act No. 36 of 1947 / Wet Nr 36 van 1947

Section 1. Identification of the material and the supplier

Product: **METHOS**
Product Use: Adjuvant
Restriction of Use: Refer to Section 15

Supplier: **Agritech Bioscience (Pty) Ltd t/a Carabiner**
PO Box 1224
Isando, 1600
South Africa
www.carabiner.co.za

Emergency No: POISON CENTRE (UNITAS HOSPITAL) 012 664 1100
TYGERBERG 021 931 6129
RED CROSS 021 689 5227
RAPID SPILL RESPONSE 0800 775 3305
GRIFFON POISON CENTRE 082 446 8946

Date of SDS Preparation: 5 February 2025

Section 2. Hazards Identification

Classification of the substance or mixture

Globally Harmonised System, EU (GHS) and according to regulation EC No 1272/2008 [CLP]

Skin Corrosion/Irritation Category 3; H316
Serious Eye Damage Category 1; H318
Short-term (Acute) Aquatic hazard Category 1; H400
Long-term (Chronic) Aquatic hazard Category 1; H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

Label elements

Globally Harmonised System, EU (GHS) and according to regulation EC No 1272/2008 [CLP]

Pictograms



Signal Word: **DANGER**

Hazard statement(s)

H316: Causes mild skin irritation.

H318: Causes serious eye damage.

H400: Very toxic to aquatic life.

H411: Toxic to aquatic life with long lasting effects.

Precautionary statement(s)**General:**

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.

Prevention:

P264 + P265 - Wash hands thoroughly after handling. Do not touch eyes.

P273 - Avoid release into the environment.

P280 - Wear eye protection/face protection.

Response:

P305 + P354 + P338 - IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P317 - Get medical help.

P332 + P317 - If skin irritation occurs: Get medical help.

P391 - Collect spillage.

Storage:

-

Disposal:

P501 - Dispose of contents/container in accordance with national regulations.

Supplemental Hazard Statements: none

2.3 Other**Other hazards**

Metal corrosion.

Section 3. Composition / Information on Hazardous Ingredients

Mixture

Fatty Alcohol Ethoxylate

Globally Harmonised System, EU (GHS) and according to regulation EC No 1272/2008 [CLP]

Ingredients	Concentration of hazardous ingredient in composition	CAS Number	Classification
Ca-dodecyl benzene sulfonic acid	<10%	26264-06-2	Aquatic Acute Cat. 1; H400, Aquatic Chronic Cat. 2; H411

Product Name: METHOS

Date of SDS: 5 February 2025

Alcohol ethoxylate	10-30%	68439-50-9	Skin Irrit. Cat. 2; H315 Eye Damage Cat. 1; H318 Aquatic Chronic Cat. 4; H412
--------------------	--------	------------	---

For the full text of the H-Statements mentioned in this Section, see Section 16.

Section 4. First Aid Measures

Provide medical personnel with the container label, product name or safety data sheet (SDS) when seeking medical attention.

Remove patient from exposed area. Never give anything by mouth to a patient that is unconscious or is having convulsions. Rinse mouth with water. Consult a physician. First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Routes of Exposure:

If in Eyes Rinse cautiously with water for several minutes. Remove contact lenses. Call a doctor for treatment advice. **Obtain medical attention immediately.** If symptoms (e.g., redness, irritation, pain etc.) persist after 15 minutes of irrigation, refer the patient to an ophthalmologist for an eye examination.

If on Skin Immediately flush body and clothes with large amounts of water. Remove contaminated clothing and footwear immediately. Do not rub skin. Persons providing first aid must wear gloves to avoid self-contamination. **Seek medical attention.**

If Swallowed Never give anything by mouth to an unconscious person or to a person having convulsions. Do not induce vomiting. For advice, contact the National Poisons Centre. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomits, rinse mouth and administer more water. The decision of whether to induce vomiting or not must be made by an attending physician. **Seek medical attention immediately.**

If Inhaled Remove patient to fresh air. Keep patient calm. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). **Seek medical attention.**

Most important symptoms and effects, both acute and delayed

Symptom of exposure to the product include Eye Irritation.

Treatment:

No specific antidote known. Treat symptomatically and supportively.

Section 5. Fire Fighting Measures

Hazards from products	Fires involving the product may produce irritation or poisonous vapours, mists or other products of combustion. Closed containers may explode from vapour expansion in high heat.
Suitable Extinguishing media	Alcohol-resistant foam, carbon dioxide, dry chemical. Do not use high volume water jet, due to contamination risk.
Recommended protective clothing & Precautions for firefighters	Remove spectators from surrounding area. Isolate the fire area and evacuate downwind. Use a recommended extinguishing agent for the type of surrounding fire. Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Contain fire control agents for later disposal. Avoid inhaling hazardous vapours and fumes from burning materials. Keep upwind. Remove container from fire area if possible and without risk. If the area is heavily exposed to fire, and if conditions permit, let the fire burn itself out since water may increase the area contaminated (on small fires). Water can be used to cool unaffected containers but must be contained for later disposal. Do not scatter the material. Avoid pollution of waterways. Do not extinguish the fire until the flow of product has been stopped. Keep upwind. Generating poisonous and corrosive fumes containing: carbon monoxide, nitrogen oxides. UNUSUAL FIRE OR EXPLOSION HAZARDS: Combustion products are toxic and/or irritant. Solvent vapours may travel to a source of ignition and create a flash back vapour explosion hazard indoors, outdoors, or in sewers. Full protective clothing and self-contained breathing apparatus and turnout gear.

Section 6. Accidental Release Measures

Personal precautions:

Ventilate the area of the spill or leak, especially when in confined areas. Do not touch or walk through spilled material as slippery when spilt. Wear appropriate protective clothing recommended. Avoid contact with skin and eyes. Do not breathe in spray or fumes. For personal protection see Section 8. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink, or smoke. Wash contaminated clothing before re-use. Prevent skin contact. For personal protection see Section 8.

Environmental precautions:

Prevent spillage or further leakage if safe to do so. Do not contaminate waterways, drains and groundwater. If contamination of waterways, drains, rivers, or lakes is unavoidable, warn the local authorities (Police and Department of Water/Environmental affairs) immediately.

Spill and Disposal procedures:

Cleaning procedure:

For small spills, soak up with damp earth or sand, or other non-combustible absorbent material. Place into a labelled waste container with a shovel and cover for subsequent reclamation or disposal. Keep the wash water out of drains, sewers and waterways.

For large spills, contain the spillage with absorbent material (non-combustible for flammable products). Sweep up with absorbent material, contain and collect spilt product in suitable containers for proper disposal. Keep the wash water out of drains, sewers and waterways.

Waste Disposal: In accordance with local and national regulations. Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Dispose of properly. Clean up affected area. Used absorbent material and washings should be stored in labelled, sealable containers until these can be disposed of according to local regulations. Open burning or dumping of this material is prohibited.

Container Disposal: Refer to the product label for instructions. DO NO REUSE THE CONTAINER FOR ANY OTHER PURPOSE. Do not transport if this container is damaged or leaking.

Reference to other sections

Information regarding emergency contact information, see section 1.

Information regarding safe handling, see section 7.

Information regarding personal protective equipment, see section 8.

Information regarding waste disposal, see section 13.

Section 7. Handling and Storage

Precautions for Handling:

Always provide good ventilation in the work area. Prevent contact with eyes, skin and clothing. Do not breathe in dust/vapours/spray mists. Wear protective clothing and equipment during handling as described in Section 8 of the SDS. KEEP OUT OF REACH OF CHILDREN and animals. Do not smoke near handling and storage area. Avoid breathing vapour or mist. Keep away from food, feed and eating utensils. Avoid skin and eye contact and inhalation of spray mist. Use good personal hygiene. Avoid contact with clothing. Do not swallow. Keep the container closed. Use with adequate ventilation. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash hands and exposed skin before eating, drinking or smoking. After work, rinse gloves and remove protective equipment. Wash hands thoroughly with soap and water after handling, and before eating, tobacco use, drinking, or using the toilet. Wash contaminated clothing before re-use and separate from household laundry.

Precautions for Storage:

Always store locked up and keep containers tightly closed when not in use. Store in original container only in a well-ventilated, cool, dry, secure area away from children, foods and animal feeds. Protect from heat, moisture and direct sunlight. Check storage containers regularly for leaks and protect containers from physical damage. Store in the original container, avoid cross contamination with other agricultural products.

Keep away from children or uninformed persons. Avoid keeping product in extreme temperatures and direct sunlight. Avoid heat and sources of ignition. Avoid strong basic, acidic or oxidising materials. It is recommended to have appropriate spill control kits equipped with absorbent material in close proximity to storage areas (see Section 6).

Specific end use(s): Use as directed. Use original container.

Section 8 Exposure Controls / Personal Protection

National occupational exposure limits - Restricted limits for hazardous chemical agents

Component	Type	Control parameter	Update	Basis
Not applicable	OEL-eight hour TWA	N/A	2021	South African RELs*

	OEL-STEL/C	N/A	2021	South African RELs*
--	------------	-----	------	---------------------

*REL: Recommended Exposure Limit

OEL-eight hour TWA: Occupational Exposure Limit – Time Weighted Average. Calculated over an eight-hour working day, for a five-day working week.

OEL-STEL/C: Occupational Exposure Limit – short term exposure limit/Ceiling Limit. Peak airborne concentration determined over the shortest analytically practicable period of time, which does not exceed 15 minutes.

Engineering Controls / Industrial Hygiene

Comply with occupational safety, environmental, fire and other applicable regulations.

It is essential to provide adequate ventilation. The measures appropriate for a particular work site depend on how this material is used and on the extent of exposure. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.

Personal Protection Equipment

Eyes	Select safety eye/face protection based on the task being performed and the risks involved with the task. Wear tightly fitted and well maintained safety eyewear compliant with an approved standard.
Hands	Wash the hands and/or face before breaks, eating, smoking or using the lavatory and at the end of the shift/working period. Eye wash fountains and safety showers should be available and easily accessible. Wash contaminated clothing before use.
Skin	Select skin and hand protection based on the task of being performed and the risks involved with the task. The gloves should be replaced immediately in case of damage or signs of wear. The personal protective clothing must be properly fitted and well maintained.
Respiratory	Respiratory protection selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Use a properly fitted and well maintained particulate filter respirator, complying with an approved standard. Respirator selection and use should be based on contaminant type, form and concentration. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.
General	Where there is any possibility that an employee's eyes may be exposed to this substance, the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.

Environmental exposure controls

In accordance with the local legislation for the protection of the environment it is recommended to avoid environmental spillage or releases of both the product and its container.

Section 9 Physical and Chemical Properties

Appearance	Liquid
-------------------	--------

Product Name: METHOS
Date of SDS: 5 February 2025

Colour	Straw coloured
Odour	Fatty odour
Odour Threshold	No data available
pH	5
Boiling/Melting Point	>217°C
Freezing Point	Not applicable
Flash Point	Not applicable
Flammability	Not applicable
Upper and Lower Explosive Limits	Not applicable
Vapour Pressure	10.22 Pa
Vapour Density	Not applicable
Density	0.912 g/cm ³
Water Solubility	Forms an emulsion in water
Partition Coefficient:	No data available
Ignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	No data available
Particle Characteristics	No data available
Surface tension	No data available

Section 10. Stability and Reactivity

Stability of Substance	Stable under normal conditions. Stable for 24 months.
Possibility of hazardous reactions	None known under normal conditions of storage and use.
Conditions to Avoid	Avoid temperature extremes. Keep away from heat, ignition sources and protect from direct sunlight.
Incompatible Materials	Strong basic, acidic, or oxidising materials.
Hazardous Decomposition Products	No decomposition if stored and handled as indicated.

Section 11 Toxicological Information

Acute Effects:

Oral	GHS: Not classified
Dermal	GHS: Not classified
Inhalation	GHS: Not classified
Eye	GHS: Category 1
Skin	GHS: Category 3

Chronic Effects:

Carcinogenicity	GHS: Not classified
Reproductive Toxicity	GHS: Not classified
Germ Cell Mutagenicity	GHS: Not classified
Aspiration	GHS: Not classified
STOT/SE	GHS: Not classified
STOT/RE	GHS: Not classified

Section 12. Ecotoxicological Information

Ecological effects information	<u>Short-term (Acute) hazard Aquatic:</u> Alcohol ethoxylate Warning! According to the classification provided by companies to ECHA in REACH registrations this substance is very toxic to aquatic life and is toxic to aquatic life with long lasting effects. Category 1. Crustaceans - Daphnia 48h mg/L EC50: 0.045 mg/L Fish 96h mg/L LC50: 0.251 mg/L Algae and Aquatic Plants 72h EC50 (mg/L): 0.037 mg/L <u>Long-term (Chronic) hazard Aquatic:</u> Alcohol ethoxylate Warning! According to the classification provided by companies to ECHA in REACH registrations this substance is very toxic to aquatic life and is toxic to aquatic life with long lasting effects. Category 1. Crustaceans - Daphnia 48h mg/L EC50: 0.054 mg/L Fish 96h mg/L LC50: 0.251 mg/L Algae and Aquatic Plants 72h EC50 (mg/L): No information available
Persistence and degradability	No information available
Bioaccumulation	Bio-degradability in the aquatic environment: No information available Toxicity to other species Birds: No information available Bees: No information available Soil microorganisms: >2 mg/L Bioaccumulative Potential: BCF (Aquatic Species): Alcohol ethoxylates are not expected to bioaccumulate due to a rapid biotransformation and excretion.
Mobility in Soil	No information available
Other adverse effects	None known
Precautions:	Do not allow to enter waterways.

Section 13. Disposal Considerations

Disposal Method:

Do not contaminate water, food or feed by disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved chemicals waste disposal facility. Spilled product cannot be re-used and must be disposed of. This product and its container must be disposed of by a waste treatment facility authorised to destroy waste in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) and the relevant waste management regulations. Do not dispose into, or allow contact with, municipal sewerage systems or open water bodies. Do not bury.

Contaminated packaging:

Containers and packages must be completely emptied before disposal.

TRIPLE RINSE THE EMPTY CONTAINER AS FOLLOWS: Invert the empty container over the spray or mixing tank and drain for at least 30 seconds after the flow has slowed down to dripping. Thereafter, rinse the empty container three times with a volume of water equal to a minimum of 30% of that of the container. Add the rinsings to the contents of the spray tank before destroying the empty container. Destroy the empty container by perforation and flattening and do not use for any other purpose. Store appropriately until it can be taken to a waste treatment facility authorised to destroy waste in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) and the relevant waste management regulations for disposal. Empty containers and product should not be burnt.

Special precautions during disposal:

Waste resulting from the use of this product cannot be reused or reprocessed. Never pour untreated waste or surplus products into public sewers or where there is any danger of run-off or seepage into water systems. Do not contaminate rivers, dams or any other water sources with the product or used containers. Triple rinse containers, add rinsate to the spray tank, then offer the container for recycling/reconditioning, or puncture top, sides and bottom and take to a waste treatment facility authorised to destroy waste in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) and the relevant waste management regulations for disposal.

If on-site container disposal is necessary, triple rinse empty container with water, add rinsate to the spray tank. Puncture top, sides and bottom, crush, and store appropriately until it can be taken to a waste treatment facility authorised to destroy waste in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) and the relevant waste management regulations for disposal.

Empty containers and product should not be burnt.

Section 14	Transport Information
-------------------	------------------------------

Rail/road (RID/ADR):

Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Alcohol ethoxylate)
UN number	3082
Class	9
Packing group	III
Environm. Haz. Mark	Yes

Inland waterways (AND/ADNR)

Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Alcohol ethoxylate)
UN number	3082
Class	9
Packing group	III
Environm. Haz. Mark	Yes

Sea (IMDG code):

Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Alcohol ethoxylate)
UN number	3082
Class	9
Packing group	III
Marine pollutant	Yes

Air (ICAO/IATA):

Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Alcohol ethoxylate)
UN number	3082
Class	9
Packing group	III
Environm. Haz. Mark	Yes
Transport in bulk according to Annex II of MARPOL and the IBC Code	Not applicable.

Not classified as dangerous goods.

Section 15**Regulatory Information****Safety, health and environmental regulations/legislation specific for the substance or mixture****South Africa**

Regulations for Hazardous Chemical Agents – 2021 – SA Occupational Health and Safety Act. - Handling, labelling and Safety Data Sheets for hazardous and GHS classified substances and mixtures. Occupational Exposure Limits.

Hazardous Substances Act, 1973 (Act No.15 of 1973) - Requirements on the prohibition and control of the importation, manufacture, sale, use, operation, application, modification, disposal or dumping of hazardous substances.

Occupational Health and Safety Act No. 85 of 1993.- Occupational Health and Safety Standards for employers and users working with and around hazardous chemical substances.

National Road Traffic Act, 1996 (ACT NO. 93 of 1996). - The identification and classification of dangerous goods for transport by road and rail modes.

Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

Section 16**Other Information****Full text of H-Statements referred to under sections 2 and 3.**

H316: Causes mild skin irritation

H318: Causes serious eye damage.

H400: Very toxic to aquatic life.

H411: Toxic to aquatic life with long lasting effects.

For proper and safe use of this product, please refer to the approval conditions laid down on the product label. The data contained in this safety data sheet is based on our current knowledge and describes the product only with regard to safety requirements. The data does not describe the products properties. Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any existing laws and legislation are observed.

The information herein is given in good faith, but no warranty, express or implied is made.

Issue Date: 5 February 2025

Review Date: 5 February 2030