



SAFETY DATA SHEET

AGRI-TREAT[®]300

HOBr

Rev Date: 28/09/2025

Revision no: 02

SDS No: AGRI-T/09/2025

Safety Data Sheet (SDS) According to current version of: ISO/SANS 11014:2009/2010; UN Model Regulations Rev. 23 (2023); UN Globally Harmonised System of Classification & Labelling; Regulation (EC) No 1272/2008 and current applicable updates, The 10th Revised Edition of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS Rev. 10, 2023) and the SA HCA Regulations (2021).

SECTION 1. Identification – Chemical Product and Company

Product Identifier

Trade Name	: Agritreat [®] 300.
UN number	: Not regulated.
CAS number	: 13517-11-8.
EC number	: Not available.
Alternate names	: Bromanol.
IUPAC name:	: Hypobromous acid.
Chemical family	: Bromine oxoacids.
Chemical formula	: HOBr.
Other means of identification	: Yellow to amber liquid substance.

Recommended use and restrictions on use

Recommended use: Hypobromous acid is a liquid substance and the intended use is in cleaning and control in: drip, micro and a variety of irrigation system piping and drip nozzles. The product is used to clean these from scale, inorganic materials, biofilm, bacteria and other matter. Its application is in filtration systems such as sandfilters as well. It is also used as a disinfectant and processing aid to control microbes in various applications, including cooling towers, fruit and vegetable wash water, meat and poultry processing, and hot tubs.

Sector uses:

Agriculture: Cleaning of irrigation and filter systems

Potable water: Disinfection of water

Industry: Cleaning of scale and bacteria

Sewerage effluent: Treatment of waste for agricultural uses

Consult the supplier for dilutions and application rates.

Revision number 02, effective date: September 2025

Restrictions on use: This product does not present any particular risk, provided it is handled in accordance with the instructions provided by the supplier and good occupational hygiene and safety practice.

HOBr is a highly unstable acid and exists only in solution, unless adequately stabilized. Do not use with strong acids

Supplier's details: Aquaticus Agri (Pty) Ltd
Address:
Postal: PO Box 499, Fauna Park, 0787.
 South Africa.
Physical: 82 Hoog Street,
 Polokwane, 0699

Telephone No: (+27) 082-8224862

Emergency phone number: (+27) 082-8224862.
Poison Information helpline: 0861 555 777

SECTION 2. Hazards Identification

GHS classification of the substance – in accordance to: UN Recommendations for Transport of Dangerous Goods Model Regulations commonly known as the UN “Orange Books” 23rd revision. UN Globally Harmonized System of Classification and Labelling of Chemicals – GHS commonly known as the UN “Purple Book” 10th revision.

Note: Information obtained from human experience with product.

Transport – Not Regulated	N/A
Hypoborous Acid (12%) GHS - Hazard classes/Hazard categories	H - Hazard Statement with codes
Mild skin irritation Cat 3	H316: Causes mild skin irritation
Eye irritation: Cat 2B	H320: Causes eye irritation
STOT SE: Cat 3	H335: May cause respiratory irritation.

Substance / Ingredient name	Classification: Hazardous	
	GHS - Hazard classes/Hazard categories	H - Hazard Statement with codes
Isocyanuric acid.	Acute toxicity - oral: Cat 3.	H301: Toxic if swallowed
	Acute Tox. 3 (Inhalation)	H331: Toxic if inhaled.
	Skin corrosion/irritation: Cat 2.	H315: Causes skin irritation

	Serious eye damage/ eye irritation: Cat 1.	H318: Causes serious eye damage
	STOT SE: Cat 3.	H335: May cause respiratory irritation
	Germ cell mutagenicity: Cat 1B.	H340: May cause genetic defects.
	Respiratory Sensitization. 1	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
	Skin Sensitization. 1	H317: may cause skin sensitization.
	Aquatic Chronic 3	H412: Harmful to aquatic life with long lasting effects.
Cyanuric acid	Not classified as hazardous	N/A

Isocyanuric acid is not classified as the concentration falls below 0,1%.

Other organisations (September 2025):

Organisation	Substance	Cas No	Classification
ECHA	Hypobromous acid	13517-11-8	Not Listed
ILO (WHO)	Hypobromous acid	13517-11-8	Not Listed

Reference: (European Chemical Agency [ECHA], & (International Labour organization [ILO], n.d.)

The most important adverse effects to know in emergency are –

HEALTH: The substance is irritating to the eyes, skin and respiratory tract. In case of a fire avoid breathing in fumes. Stand up wind.

GHS label elements, including Precautionary Statements:



Signal word: Warning.

Hazard Statement:

H316: Causes mild skin irritation.

H320: Causes eye irritation.

H335: May cause respiratory irritation.

Precautionary statements:

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 before use

Prevention:

P203: Obtain, read and follow all safety instructions before use.

P264 + P265: Wash hands and face thoroughly after handling. Do not touch eyes.

P261: Avoid breathing fume/gas/mist/vapours/spray.

P271: Use only outdoors or in a well-ventilated area.

Response:

P332 + P317: If skin irritation occurs: get medical help.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses if present and easy to do. Continue rinsing.

P337 + P317: If eye irritation persists: Get medical help.

P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P319: Get medical help if you feel unwell.

Storage:

P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

P405: Store locked up.

Disposal:

P501: Dispose of contents/container to the appropriate waste disposal site in accordance to the legal processes required.

SECTION 3. Composition/information on ingredients/Hazardous components as per EU-CLP Regulation (EC) no: 1272/2008, and UN GHS 10th ed.

Chemical identity	: Hypobromous acid
Molecular Weight	: 96.91 g/mol
CAS Number	: 13517-11-8
EC Number	: not available
Impurities	: Not available.
Stabilizers	: Isocyanuric acid (<0,1%)

Substance name. Molecular formula. Chemical name.	%	CAS number .	Hazard codes and statements:
		EC number	
Hypoborous acid (HOBr)	12	13517-11-8	As given above
		Not available	

Product Composition	Quantity
Isocyanuric Acid	<0,1%

SECTION 4. First-aid measures:

General advice:

Never give anything by mouth to an unconscious person. If exposed or concerned: Get medical advice/attention. Ensure first responders are informed of the hazards.

Keep out of reach of children and pets.

If inhaled: Remove person to fresh air and keep comfortable for breathing. Get medical help if you feel unwell.

If in eyes: Rinse cautiously with water for several minutes. Hold eyelids open during flushing. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists: Get medical help.

Skin contact: Remove contaminated clothing and shoes immediately. Wash affected area with soap or mild detergent, and large amounts of water. If skin irritation occurs: get medical help.

In case of ingestion: Do not attempt to give anything by mouth to an unconscious person. Do not perform mouth-to-mouth resuscitation. Get medical attention immediately.

Note to physician: Treat symptomatically and supportively. Antidote should be administered by qualified medical personnel. No specific antidote for Hypobromous Acid had been recommended. The decision as to whether the severity of poisoning requires administration of any antidote and actual dose required should be made by qualified medical personnel.

Potential acute health effects :

Skin contact: Single, short exposure not likely to cause significant skin irritation. However, direct contact with solution may cause irritation.

Eye contact: May cause irritation of eyes with redness and/or pain and superficial injury. Additional effects may include tearing and eye discharge.

Ingestion: Ingestion may cause vomiting, digestive disorders, high blood pressure, headache, kidney damage, paralysis and coma.

Inhalation: - Vapour inhalation may cause irritation to mucous membranes and respiratory system. Additional effects may include coughing and shortness of breath.

Potential chronic health effects:

Carcinogenic effects: Not available

Mutagenic effects: Not available

Teratogenic effects: Not available.

Medical conditions aggravated by prolonged exposure: Information not available.

The supplier reports that since the product came into use

SECTION 5. Fire-fighting measures

Use fire extinguishing methods suitable to surrounding conditions.

Suitable extinguishing media if involved in a fire: Dry powder, CO₂, water spray or fog, or regular foam. Sand.

Unsuitable extinguishing media: No information available. However, no acidic materials to be used otherwise bromine gas will be emitted.

Special hazards: No specific fire or explosion hazard. No acidic materials or strong oxidizing agents to be used otherwise bromine gas will be emitted.

Firefighting: Move container(s) from fire area if you can do so without risk.

Extinguish fire using agent suitable for type of surrounding fire and/or chemicals.

Avoid breathing vapours, as fire may produce irritating, corrosive and/or toxic gases.

Dike area to prevent runoff and contamination of water sources. Runoff from fire control or dilution water may be corrosive and/or toxic and cause environmental contamination.

Keep unauthorized personnel away.

Stay upwind, uphill and/or upstream.

Ventilate closed spaces before entering, but only if properly trained and equipped.

Isolate spill or leak area in all directions for at least 50 meters

[ERG Guide 154: Substances - Toxic and/or Corrosive. (Non-Combustible)]

Products of combustion: Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

Fire hazards in presence of various substances: No information found.

Explosion hazards in presence of various substances: This product is non-explosive.

Special protective equipment for fire-fighters:

Fire-fighters should wear appropriate protective clothing and equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Clothing for fire-fighters (including helmets, protective boots, and gloves) conforming to South African that will provide a basic level of protection for chemical incidents.

Wear chemical protective clothing that is specifically recommended by the manufacturer when there is NO RISK OF FIRE.

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material.

Provide adequate ventilation.

ELIMINATE all ignition sources (no smoking, flares, sparks or flames) from immediate area.

Wear appropriate respirator when ventilation is inadequate.

Put on appropriate personal protective equipment.

Stop leaks if safe to do so.

Dike flow of spilled material using soil, or sandbags, or concrete. Prevent entry into waterways, sewers, basements or confined areas.

Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

For a soil spill, dig a holding area such as a pond or pit for containment.

Advice for non-emergency personnel: Wear appropriate personal protective equipment. Do not enter area of spillage. Listen to emergency instructions. Unnecessary and unprotected personnel not to from enter spill area.

Environmental precautions: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up:

Spill: Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas.

Use cement powder or fly ash to absorb liquid. Neutralize spilled material to pH >7 – 9. with a suitable agent.

Use a shovel, vacuum or sweep up material and place in a dry designated, labelled waste container. Do not let water get inside the container. Do not touch the spilled material and eliminate all ignition sources. Call for assistance on disposal. Dispose of via a licensed waste disposal contractor. Ensure the material is adequately dried to minimise the moisture content of the waste for disposal.

Disposal: (refer to section 13) Collect as much as possible in a clean designated, labelled container. Store in suitable containers for recovery or disposal. For disposal of product and containers (if necessary), do so in accordance with National and/or Regional Regulations refer National Environmental Management: Waste Act and to licensed premises as per the **SAWIC website** <http://sawic.environment.gov.za/>

SECTION 7. Handling and storage

The shelf-life: stabilized product has been kept in storage in sealed drums for up to 2 years, without losing effectiveness for its purpose.

Handling precautions: Obtain, read and follow all safety instructions before handling.

Ensure people handling the product are well aware (trained) of the hazards of the product. Wash hands thoroughly after handling, before eating, drinking or smoking to remove any chemicals that could be ingested or inhaled. Do not touch eyes. Avoid contact with skin and eyes by wearing protective gloves, protective clothing, eye protection and face protection.

Use only outdoors or in a well-ventilated area. In the case of insufficient ventilation use suitable respiratory equipment. Avoid inhalation of the vapour/fumes in contained areas.

Provide appropriate exhaust ventilation at places to dissipate fumes.

Do not ingest. If ingested, and symptoms occur, seek medical advice and show the container or the label. Do not eat, smoke or drink during use. Eating, drinking and smoking shall be prohibited in areas where chemicals are handled, stored or processed.

Remove contaminated clothing and protective equipment before entering eating areas and leaving the work premises.

After use keep the packaging well closed.

KEEP OUT OF REACH OF CHILDREN AND PETS.

Conditions for Safe Storage: Keep container tightly closed.

Should be stored in a well-ventilated cool place and kept upright to prevent leakage.

Reseal once opened and keep container tightly closed and sealed until ready for use again.

Store inside, away from the elements.

Store product separately in correctly labelled containers. ENSURE THAT NO MIXING WITH OTHER INCOMPATIBLE PRODUCTS CAN OCCUR. Do not store with strong acids nor strong oxidizing agents and in unsuitable conditions.

Use appropriate containment to avoid environmental contamination.

Suitable materials for storage and packaging: No information given.

Avoid unsuitable materials and conditions: Sources of ignition. Prevent the stored material from the access of fire.

Do not store with strong acids nor strong oxidizing agents and in unsuitable conditions.

SECTION 8. Exposure controls/personal protection:

NOTE: Refer to section 15: OHS Act - Occupational Health and Safety Act 85 of 1993 and Regulations: Hazardous Chemical Agents Regulations – HCA, 2021: Section 14 requires GHS Classification, GHS Compliant SDS – Safety Data Sheets, Labelling, and operational site Risk Assessment to inform personnel Health / Biological Monitoring

Control parameters

Institution	Compound	Cas No	TWA ¹	STEL ²
South African Employment and Labour Department	Hypobromous acid. Group II	13517-11-8	Not Listed	Not Listed
International Labour organization (ILO)	Hypobromous acid	13517-11-8	Not Listed	Not Listed
OSHA	Hypobromous acid	13517-11-8	Not Listed	Not Listed

¹ TWA – Long term exposure: Time Weighted Average (8-hour period)

² STEL – Short term exposure: Short term exposure limit (15 min period)

(Ref: ILO, n.d. & OSHA, n.d., SA OHS Act, HCA Regulations 2021 and: Hazardous Substances Act, 1973 (Act No 15 of 1973). 25th March 2022.

(Ref: ILO, n.d. & OSHA, n.d., SA OHS Act, HCA Regulations 2021 and: Hazardous Substances Act, 1973 (Act No 15 of 1973). 25th March 2022. Group I, Category A; Group I, Category B; Group II; Hazardous Substances : Declarations.). The general approach necessary to control occupational exposure to dusts, fumes, vapours, etc. is as follows: not all of these have been assigned OELs, but the lack of such limits should not imply an absence of hazard. In the absence of a specific exposure limit for a particular dust, fumes, vapour, etc. exposure should be adequately controlled.

Where there is no indication of the need for a value as the substance is not listed, the following may be used as a basis for monitoring:

- Personal exposure should be kept below both 4 ppm (STELC) (HBr), or 0,4 ppm (Br₂).
- Eight-hour timeweighted average, 0,2 ppm (Br₂.)

Recommended Monitoring:

Refer to HCA regulation.

Engineering controls:

For asphyxiants, according to the HCA regulation: Some gases and vapours, when present at high concentration in air, act as simple asphyxiants by reducing the oxygen content by dilution to such an extent that life cannot be supported. Many asphyxiants are odourless, colourless and not readily detectable. Monitoring the oxygen content of the

air is often the best means of ensuring safety. The oxygen content of air in the workplace should never be allowed to fall below a minimum of 19% by volume under normal atmospheric pressure. Particular care is necessary when dense asphyxiants, e.g. argon, are used since very high localised concentrations can arise due to their collecting in pits, confined spaces and other low-lying areas where ventilation is likely to be poor. Many

asphyxiants present a fire or explosion risk. The concentrations at which these risks can arise are liable to be well below those levels at which asphyxiation is likely to occur and should be taken into account when assessing the hazards. Ensure adequate ventilation especially in confined areas.

If user operations generate dust, fume, vapour or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. Prevent possible accumulated fumes/gases in pits. Ensure emergency eye wash fountains and safety showers are close to the workstation or in the immediate vicinity of any potential exposure.

Routes of exposure: The substance can be absorbed into the body by inhalation of its aerosol, vapour and by ingestion.

Inhalation risk: A harmful concentration of fumes could be reached quickly especially in closed confines.

Effects of short-term exposure: The substance is irritating to the eyes, skin and respiratory tract.

Effects of long-term or repeated exposure: Not Listed.

Individual protection measures

Respiratory protection: Not required under normal conditions of use. Where protection from nuisance levels of dust, is desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards.

Any self-contained breathing apparatus that has a full-face piece and is operated in a pressure-demand or other positive-pressure mode. Any supplied air respirator that has a full-face piece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus (SCBA) operated in

pressure-demand or other positive pressure mode. when ventilation is inadequate.. Vapour levels must be minimised.

Hand protection: Wear gloves of appropriate impervious material if exposed to product if appropriate for duration and frequency of contact with the product. The glove material must be impermeable and resistant to the product. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye and face protection: safety/splash goggles with side shields. Use equipment for eye protection tested and approved under appropriate government standards. SABS adoption: SANS 50166:2018(SA), EN 166(EU) or NIOSH (US).

Body protection: Choose body protection in relation to its type, to the concentration and amount of product exposure, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the substance at the specific workplace.

Feet: appropriate chemical resistant boots.

General protective and hygiene measures: **Hygiene measures:** Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Environmental exposure controls:

No special environmental precautions required

Technical measures: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels. If exposed through inhalation or any other route of exposure get medical advice.

Individual protection measures: As given above.

Personal protection in case of large spills:

Splash goggles, overalls, dust respirator, boots and gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient. Consult a specialist before handling this product.

SECTION 9. Physical and chemical properties

Physical state	: Liquid substance.
Colour	: Amber or yellow.
Molecular Formula	: HOBr
Molecular weight	: 96.91 g/mole
Odour	: Slight halogen odour.
Odour threshold	: No information.
Melting point/ Freezing point	: N/A

Boiling point	: N/A.
Flammability	: Not flammable
Upper/lower flammability or explosive limits	: Not explosive
Flash point	: Does not flash
Auto-ignition temperature	: N/A
Oxidizing Properties	: Oxidizer, however, is at very low concentration 12%
Decomposition temperature	: N/A.
pH	: 5.5 – 8.5 @ 5% solution. Preferably at pH 8.2
Kinematic viscosity	: No information available
Solubility in water	: Completely
Partition coefficient: n-octanol/water,	
Log K _{ow}	: Not available
Relative Volatility – Henry's Law	: 0.030 H (atm) @ 20°C
Density/relative density	: 1.01 – 1.53 @ 20°C
Bulk Density (Volumetric)	: Not available
Relative vapour density	: Not available
Evaporation rate	: Not available
Particle characteristics	: Not available

SECTION 10. Stability and reactivity

Reactivity: Non-Reactive

Chemical stability: Stable under normal conditions.

Hazardous Reactions: Will not occur.

Conditions to Avoid: Avoid contact with incompatible materials like strong acids and oxidizers. Avoid heat, flame, and sparks.

Incompatible Materials: strong acids and oxidizers

Hazardous Decomposition Products: Gives off irritating or toxic fumes (or gases) in a fire.

Polymerization: Does not occur under normal temperatures and pressures.

SECTION 11. Toxicological information

GHS Classification based on the following results:

Acute toxicity:

LD50: Oral, No information available.

LD50 : Dermal, No information available.

LC50: Inhalation, 2858 ppm (Rat) 1h

Skin Corrosion / irritation: Skin irritation: Cat 3.

Serious Eye Damage / Irritation: Eye irritation Cat 2B

Respiratory Sensitization: No information available..

Skin Sensitization: No information available..

Aspiration Hazard: No information available.

Reproductive Toxicity (rat): No information available.

Effects on or via Lactation/Teratogenicity: No information available.

Germ Cell Mutagenicity: No information available.

Carcinogenicity: No information available.

STOT SE – Specific Target Organ Toxicity, Single Exposure: Cat 3, May cause respiratory irritation.

STOT RE – Specific Target Organ Toxicity, Repeat Exposure: No information available.

Route of Exposure and potential effects

Refer to section 4

Special remarks on toxicity to animals: No information available.

Special remarks on chronic effects on humans: No information available.

Special remarks on other toxic effects on humans: See Registry of Toxic Effects of Chemical Substances (RTECS) file for mutagenic and tumorigenic data.

Local Effects – Eye, mucous membrane and skin irritant.

Health Effects – Moderately toxic by ingestion.

Acute/Chronic exposure may cause gastrointestinal, skin and nervous system irritation..

SECTION 12. Ecological information.

Ecotoxicological summary: No information available.

Ecotoxicity: (Aquatic and terrestrial; where available): No information available.

Terrestrial Toxicity: No information available.

Macro-organisms: Not Tested

Arthropods: Not Tested

Plants: Not Tested

Micro-organisms: Not Tested. The product is used as a disinfectant for bacteria.

Birds: Not Tested

Persistence and biodegradability: No information available.

Stability: No information available.

Biodegradation Due to the inorganic nature of the substance standard testing systems are not applicable.

Special remarks on the products of degradation: No information is available

Bioaccumulative potential (aquatic and terrestrial): Simple inorganic salts with high aqueous solubility will exist in a dissociated form in an aqueous solution. Such a substance has a low potential for bioaccumulation.

Mobility in soil:

Adsorption : No information available

Volatilization : No information available.

Other adverse effects:

Classification : No data available

Effect on ozone layer: No information available.

SECTION 13. Disposal considerations

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way.

Generation of waste – Disposal methods

Refer to section 6 for clean up methods.

Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Dispose of waste/spilt product and of necessary the container by a licensed waste disposal contractor. If at all possible, recycle and reuse the spilt product. Product residues and uncleaned empty containers should be packaged, sealed, labelled, and disposed of or recycled according to relevant national and local regulations. Where large quantities are concerned, consult the supplier. When uncleaned empty containers are passed on, the recipient must be warned of any possible hazard that may be caused by residues. Disposal must be made in accordance with the applicable National and Regional Government regulations at approved and permitted appropriate disposal sites – refer to the SA National Environmental Management Waste Act - NEM: WA, it's Regulations and local by-laws.

SAWIC the South African Waste Information Centre informs permitted Waste Facilities and Service providers see sawic.environment.gov.za

SECTION 14. Transport information.

General: The driver and any persons that will be in contact with the product shall be trained on the potential hazard/s of the load and, what to do in case of accident or emergency.

	UNTDG / ADR	IMDG	ICAO / IATA
UN Number	Not regulated	Not regulated	Not regulated
UN Proper Shipping Name	Not listed	Not listed	Not listed
Transport Hazard Class:	No classification	No classification	No classification
Packing Group	N/A	N/A	N/A
ERG	N/A	N/A	N/A
Environmental Hazards & additional Information	No information available.	No information available.	No information available.

SECTION 15. Regulatory information

OHS Act - Occupational Health and Safety Act 85 of 1993 and Regulations:

Hazardous Chemical Agents Regulations – HCA, 2021: Section 14 requires GHS Classification, GHS Compliant SDS – Safety Data Sheets and Labelling, and operational site Risk Assessment to inform personnel Health / Biological Monitoring.

Hazardous Substances Act, 1973 (Act No 15 of 1973). 25th March 2022. Group I, Category A; Group I, Category B; Group II; Hazardous Substances : Declarations.

NEMA – National Environmental Management Act 107 of 1998: Duty of Care and Producer Responsibility for products and packaging on a Life Cycle basis

NEM:WA – National Environmental Waste Act 59 of 2008 and its' Regulations including Extended Producer Responsibility, and regulations for waste management, Classification and disposal, see www.sawic.environment.gov.za for licensed premises

Road Traffic Act 93 of 1996 and its Amendments: Chapter VIII Dangerous Goods Regulations

EU Regulation EC 1272/2008 (EU GHS /CLP) – Safety Data Sheets and Labelling

SECTION 16. Other information

Other relevant information including information on preparation and revision of the SDS –

ISO 11014:2009 Safety Data Sheets for Chemical Products – content and order of sections

UN Recommendations for Transport of Dangerous Goods Model Regulations commonly known as **the UN “Orange Books”** 23rd revision.

UN Globally Harmonized System of Classification and Labelling of Chemicals – GHS commonly known as **the UN “Purple Book”** 10th revision.

IMDG – International Maritime Dangerous Goods Code, 2022 edition, amendment 41-22.

IATA Technical Regulations 64th edition, January 2023

ERG 2024 – Transport Canada and US Dept. Transport, PHMSA Emergency Response Guide.

Information obtained from Aquaticus.

Information obtained from other sources.

NOTE: Refer to the conditions of use of the information on the ECHA website:

Persons handling and working with this product should be trained in the hazards and safe handling as required in the Chapter 1.3 of the UN Model Regulations for Transport of Dangerous Goods before commencing work with chemicals.

Revision No.			Compiled by
0	Date of original SDS	3 rd September 2025	Anne Bindoff Consultancy
1	Date of revision	5 th September 2025	Anne Bindoff Consultancy
2	Date of revision	28 th September 2025	Anne Bindoff Consultancy
3	Date of revision		

EXCLUSION OF LIABILITY

All information and instructions provided in this Safety Data Sheet (SDS) in respect of the substance is given in terms of the provisions of the Occupational Health and Safety Act No 85 of 1993 and its Regulations as well as the relevant legislation and guidelines indicated. Information and data is based on available information given by AQUATICUS (the client) and best available scientific and technical knowledge based on this information as at the date of revision indicated on this SDS. It is presented in good faith, to be correct. The user must be satisfied that the product is entirely suitable for the purpose for which it is being used. It is the user's obligation to determine and to ensure the conditions for the safe use of the material.

The information provided in this SDS apply only to the product in the supplied form, and not to any other formulation or mix. It should only be used as directed, and any formulations or other use is at the responsibility of the user of the product as formulated and/or mixed, to establish any hazards or risks which may arise out of its use, wherever such user may be situated.

It is the legal responsibility of the person in receipt of this SDS, whether for transport, storage or other use to ensure that the information provided is communicated to, and, understood by any person who may come into contact with, or handle the product in any place and in any manner whatsoever, and to ensure that a Risk Assessment and Emergency plan is done as required.

Where any recipient produces formulations or mixes using the product, then it is the recipient's sole responsibility to comply with the provisions of the Act, the Hazardous Chemical Agents Regulations, and any other prevailing regulations in respect of the provision of the necessary SDS, and/or to comply with any other applicable legislation.