

Safety Data Sheet (SDS) GIBB Liquid 4

According to UN GHS 8th Ed
Revision Date: 07/06/2022

First print date: 01/01/2022
Version: 1.1

SECTION 1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING

Product identifier:

Identification as on the label/Trade name: GIBB Liquid 4

Common name: Gibberellic acid (GA3) (gibberellins) 32 g/L SL

Relevant identification uses of the substance and uses advised against:

Identified uses: Plant Growth Regulator

Uses advised against: Use only as directed.

Details of the supplier of the Safety Data Sheet:

Enviro Bio-Chem (Pty) Ltd, 44 Kerk Street,
Lichtenburg, North West, South Africa, 2740

Details of the Registration Holder:

RT Chemical CC, 44 Kerk Street,
Lichtenburg, North West, South Africa, 2740

Contact Details:

Telephone: +27 87 231 7261

Fax: 086 541 7948

Website: www.envirobiochem.co.za

Emergency telephone numbers:

24 Hour Emergency Number: Bateleur: +27 83 123 3911

Griffon Poison Information Centre: +27 82 446 8946

Poisons Information Helpline: 0861 555 777

Tygerberg Hospital: +27 21 931 6129

SECTION 2. HAZARD IDENTIFICATION

Classification of the substances or mixture

The mixture is classified according to SANS 10234:2019, Regulation EC 1272/2008 [EU-GHS/CLP]

Hazard classes/Hazard categories	Hazard statement
Flammable Liquid (Category 2)	H225
Causes serious eye irritation (Category 2)	H319

For full text of H statements see section 16

The most important adverse effects

The most important adverse physicochemical effects: Highly flammable liquid and vapour.

The most important adverse human health effects: Causes serious eye irritation.

Label elements



Hazard pictograms

Signal Word: Danger

Hazard Statements:

H225	Highly flammable liquid and vapour.
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H319	Causes serious eye irritation.
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Precautionary Statements:

P102	Keep out of reach of children.
P202	Do not handle until all safety precautions have been read and understood.
P264	Wash hands, forearms, and face thoroughly after handling.
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P280	Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
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+P313	If eye irritation persists: Get medical advice/attention.
P370+P378	In case of fire: Use CO ₂ , powder or water spray to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container in accordance with local/regional/ national regulations.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS
Substance/Mixture: Mixture

Ingredients:

Substance name (IUPAC)	CAS Number.	Concentration % by weight	Classification EC1272/2008
Gibberellic acid	77-06-5	4%	Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.
Ethanol	64-17-5	<95%	Flammable liquid (Category 2) H225 Serious eye damage/ Irritation (Category 2A) H319

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section. Occupational exposure limits, if available, are listed in Section 8.

SECTION 4. FIRST AID MEASURES
Description of first aid measures:

In case of inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if breathing problems develop.

In case of skin contact: In case of skin contact, immediately remove contaminated clothing and wash affected areas with water and soap. Seek medical attention if symptoms occur.

In case of eye contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. If eye symptoms (redness, irritation, or pain) persist refer patient to ophthalmologist for examination of eyes.

In case of ingestion: If swallowed, do not induce vomiting. Rinse mouth out with water. Do not give anything by mouth to an unconscious person. Seek medical attention if symptoms develop.

Most important symptoms and effects, both acute and delayed:

Inhalation: No adverse health effects expected.

Skin Contact: No adverse health effects expected.

Eye Contact: Causes serious eye irritation.

Ingestion: May cause gastrointestinal irritation, nausea, and diarrhea

Indication of any immediate medical attention and special treatment needed:

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Treat symptomatically.

SECTION 5. FIRE FIGHTING MEASURES**Extinguisher media:**

Suitable extinguisher media: Foam. Dry powder. Carbon dioxide. Water spray.

Small Fire: Extinguish small fires with carbon dioxide, dry powder, or alcohol-resistant foam.

Large Fire: Water fog or foam can be used for larger fires or cooling of unaffected stock but avoid the accumulation of polluted run-off from the site.

Unsuitable extinguishing media: Do not use high volume water jet, due to contamination risk.

Special hazards arising from the mixture:

Highly flammable

Hazardous decomposition products in case of fire: Refer to Section 10: Stability and Reactivity.

Advice for fire-fighters:

Avoid inhaling vapours and fumes. Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Use an approved/certified respirator or equivalent.

Contain fire control agents for later disposal according to Section 13.

Water can be used to cool unaffected containers.

SECTION 6. ACCIDENTAL RELEASE**Personal precautions, protective equipment, and emergency procedures:**

Personal precautions: Avoid contact with eyes and skin. Wear approved respiratory protection, chemical resistant gloves, protective clothing and safety boots. Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation. Extinguish all sources of ignition. Avoid sparks and open flames. No smoking. Closed containers may explode when exposed to extreme heat. Containers close to fire should be removed if safe to do so. Use water spray to cool fire exposed containers.

For emergency responders: Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Use an approved/certified respirator or equivalent. Avoid contact with eyes and skin. Do not breathe in fumes. Refer to section 8 for recommended personal protective equipment. Evacuate unnecessary personnel.

Environmental precautions:

Stop leak if without risk. Do not touch spilled material. Use a light water spray to reduce vapours.

Prevent entry into drains, watercourses, or confined areas; dike if needed.

If the product contaminates public water, inform appropriate authorities immediately in accordance with local regulations.

Dispose in a safe manner in accordance with local/national regulations.

Methods for containment and cleaning up:

For small spills Contain spilled material if possible. Collect in suitable and properly labelled containers. Absorb with materials such as: sand, earth, vermiculite, or diatomaceous earth

For large spills Prevent entry into drains, watercourses, or confined areas. Cover contained spill with an inert absorbent material e.g., sand, earth, vermiculite, or diatomaceous earth. Vacuum, scoop or sweep up material into a clean, dry, sealable container. Label container with the contents and dispose of according to local regulations. Do not reuse spilled material. To decontaminate the spill area, tools and equipment, wash with water and a suitable detergent.

Reference to other sections:

See Section 1 for emergency contact information

See section 7 for information on safe handling.

See section 8 for information on personal protection equipment.

See section 13 for information on disposal.

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SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

Use of safe work practices are recommended to avoid eye or skin contact and inhalation of vapours. Use only outdoors or in a well-ventilated area. Take precautionary measures against static discharge. Do not reuse empty containers. Food, beverages, and tobacco products should not be stored or consumed where this material is in use. Always wash hands before smoking, eating, drinking, or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

Protective measures: Observe directions on label and instructions for use.

Conditions for safe storage, including incompatibilities:

Store in a cool, dry and well-ventilated area. Keep container tightly closed when not in use. Protect from heat, sparks, open flames and other sources of ignition. Protect containers from damage. Keep away from strong oxidising agents and acids.

Specific end uses:

Use as directed. Use original container.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Standards:

CAS: 64-17-5 Ethanol

WES TWA: 1880 mg/m³, 1000 ppm

Exposure control:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. A Risk Assessment should be conducted before handling is to commence to determine specific exposure control.

Appropriate engineering controls: Maintain air concentration below occupational exposure standards, providing adequate ventilation. Provide explosion proof local exhaust ventilation or other suitable engineering controls. Ensure that eye wash stations and safety showers are proximal to the work-station location.

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.

Personal Protective Equipment

Eye/face protection: Wear eye protection. During mixing or pouring operations or other activities in which eye contact with undiluted product is likely to occur, splash goggles or a full-face shield should be worn. Ensure that eye wash stations and safety showers are proximal to the work-station location.

Hand protection: Use chemical resistant gloves. Examples of preferred glove barrier materials include Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, Polyvinyl alcohol, Polyvinyl chloride.

Body protection: Appropriate impervious clothing is required to prevent skin contact with the product.

Respiratory protection: Work only in a well-ventilated area. Respiratory protection is required; a properly fit-tested respirator fitted with organic vapour cartridges is required.

Environmental exposure controls: Prevent product from entry into sewers and water courses.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Liquid
Colour	Colourless to light yellow
Odour	No data available

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Odour threshold	No data available
pH	No data available
Melting point / freezing point (°C)	Not applicable
Boiling point (°C)	No data available
Flash point (°C)	No data available
Evaporation rate	No data available
Flammability	Highly flammable
Upper /lower flammability limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density g/ml (20°C)	No data available
Water solubility (g/l) at 20°C	Completely soluble
Partition coefficient : n-octanol/water	No data available
Auto-ignition temperature (°C)	No data available
Decomposition temperature (°C)	No data available
Viscosity, dynamic (mPa s)	No data available
Explosive properties	Not an explosive hazard
Oxidising properties	No data available
Explosive limits	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity: None known under conditions of normal use

Chemical stability: Stable at ambient temperature and under normal conditions of storage and use for 2 years.

Possibility of hazardous reactions: No information available.

Conditions to avoid: Heat, sparks, open flames, and other sources of ignition.

Incompatible materials: Strong oxidizing agents and strong acids.

Hazardous decomposition products: Thermal decomposition yields harmful gases or vapours

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution: No data available

Information on toxicological effects:

Assessment of acute toxicity:

The product has not been tested. The data reported is for the main ingredients in the mixture.

Gibberellic acid CAS No. 77-06-5	
Acute toxicity:	
Acute Oral LD50 (rat)	6300 mg/kg
Acute Dermal LD50 (rat):	>2000 mg/kg
Acute Inhalation LC50 - 4 h	124.7 mg/l
Skin irritation/ corrosion (rabbit)	No data available
Eye damage / irritation (rabbit)	No data available
Respiratory or skin sensitization (Guinea pig)	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	No data available

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Reproductive toxicity	No data available
Specific Target Organ Toxicity STOT single exposure	No data available
Specific Target Organ Toxicity STOT repeated exposure	No data available
Aspiration hazard	No data available

Ethanol CAS No. 64-17-5	
Acute toxicity:	
Acute Oral LD50 (rat male and female)	10470 mg/kg
Acute Dermal LD50 (rat):	No data available
Acute Inhalation LC50 - 4 h	124.7 mg/l
Skin irritation/ corrosion (rabbit)	No Skin irritation
Eye damage / irritation (rabbit)	Causes serious eye irritation
Respiratory or skin sensitization (Guinea pig)	Not a skin or respiratory sensitiser
Germ cell mutagenicity Ames test Salmonella typhimurium Result: negative In vitro mammalian cell gene mutation test mouse lymphoma cells Result: negative OECD Test Guideline 478 Mouse - male Result: Positive results were obtained in some in vivo tests.	
Carcinogenicity	No data available
Reproductive toxicity	No data available
Specific Target Organ Toxicity STOT single exposure	No data available
Specific Target Organ Toxicity STOT repeated exposure	No data available
Aspiration hazard	No data available

Additional information:

Irritant effects: respiratory paralysis, dizziness, narcosis, inebriation, euphoria, nausea, vomiting

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12. ECOLOGICAL INFORMATION

Ethanol CAS No. 64-17-5	
Toxicity	
Aquatic Toxicity Fish LC ₅₀ (96 hr)	15300 mg/l - <i>Pimephales promelas</i> (fathead minnow)
Aquatic Toxicity Daphnia EC ₅₀ (48 hr)	5012 mg/l <i>Ceriodaphnia dubia</i> (water flea)
Toxicity to algae ErC ₅₀ (72h)	275 mg/l for <i>Chlorella vulgaris</i> (Fresh water algae)
Toxicity to bacteria Static Test IC ₅₀ (3h)	>1000 mg/l -activated sludge
Persistence and degradability	Readily biodegradable
Bioaccumulation potential	Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.
Mobility in soil	No data available
Result of PBT and vPvB assessment	No data available
Other adverse effects	No data available

Gibberellic acid CAS No. 77-06-5	
Toxicity	
Aquatic Toxicity Fish LC ₅₀ (96 hr)	>150 mg/l - <i>Oncorhynchus mykiss</i> (rainbow trout)

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Persistence and degradability	No data available
Bioaccumulation potential	No data available
Mobility in soil	No data available
Result of PBT and vPvB assessment	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Other adverse effects	No data available

SECTION 13. DISPOSAL CONSIDERATIONS
Waste treatment methods:
Product:

Keep out of drains, sewers, ditches, and waterways. Open dumping or burning of this pesticide is prohibited.

Waste resulting from the use of this product cannot be re-used or reprocessed. Refer to container label for disposal information. Treat as hazardous waste and dispose of in accordance with local/ regional/ national/ international regulations.

Container:

Refer to container label for disposal information. Emptied containers retain vapour and product residues. Observe all labelled safeguards until container is cleaned, reconditioned, or destroyed. Rinse empty container three times with a volume of water equal to at least one tenth of that of the container. Pour rinse water into spray tank. Dispose of as hazardous waste. not contaminate water when disposing of rinse water. Dispose of using an approved waste disposal service provider.

Follow all local/ regional/ national/ international regulations.

SECTION 14. TRANSPORT INFORMATION

UN Number	1993
UN proper shipping name	Flammable Liquid; N.O.S. (Gibberellic acid 32 g/l)
Transport hazard class	3
Packaging group	II
Marine pollutant	No

SECTION 15. REGULATORY INFORMATION
Safety, health, and environmental regulations/legislation for the mixture:

Relevant information regarding authorization: Occupational Health and Safety Act 1993. Regulation for Hazardous Chemical Agents, 2021. UN Recommendations on the Transport of Dangerous Goods Model Regulations Rev. 21 (2019), Globally Harmonized System of Classification and Labelling of Chemicals (GHS) Rev 8, 2019.

Relevant information regarding restrictions:

EU regulations: Regulation EC 1272/2008 [EU-GHS/CLP]

Other National regulations:

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.

Act 36 of 1947 of the Republic of South Africa. This product is registered under it is a violation of South African law to use this product in any manner inconsistent with its approved labelling. Read and follow all label directions

Chemical Safety Assessment carried out? No

SECTION 16. OTHER INFORMATION

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Indication of changes:

Classification according to SANS 10234:2019, Regulation EC 1272/2008 [EU-GHS/CLP]
GHS aligned – all sections

Training instructions:

Use as indicated on the label, special training may be required for application.

Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product, nor where instructions or recommendations are not followed.