

Lokit®

HAZARDOUS, DANGEROUS GOODS

1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product name: Lokit®

Recommended use: Spray Adjuvant – pH Buffer

Company details: Grochem (AgriNova New Zealand Limited)
15 Sunlight Grove
Porirua
New Zealand

Telephone: +64 4 237 0905

Email: grochem@grochem.com

Emergency telephone: New Zealand
0800 CHEMCALL – 24 hours
(0800 243 6225)

Australia 1800 127 406
Other locations +64 4 917 9888

or
The National Poisons Centre
0800 POISON (0800 764 766)

2. HAZARDS IDENTIFICATION

This material is hazardous according to criteria of EPA New Zealand.

HSNO Approval Code: HSR002491



Signal Word: Danger

Hazard Classifications: Acute Toxicity - Oral - Category 4
Skin Corrosion/Irritation - Category 1 B
Serious Eye Damage/Irritation - Category 1
Long term hazards to the Aquatic Environment - Category 4
Hazardous to Terrestrial Vertebrates

Hazard Statements: H302 - Harmful if swallowed.
H314 - Causes severe skin burns and eye damage.
H413 - May cause long lasting harmful effects to aquatic life.
H433 - Harmful to terrestrial vertebrates.

Prevention Precautionary Statements: P102 - Keep out of reach of children.
P103 - Read carefully and follow all instructions.
P260 - Do not breathe dust, fume, gas, mist, vapours or spray.
P264 - Wash hands, face and all exposed skin thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing including eye/face protection and suitable respirator.

Response Precautionary Statements:	P101 - If medical advice is needed, have product container or label at hand. P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER/doctor. P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 - Immediately call a POISON CENTER/doctor/insert appropriate source of emergency medical advice. P321 - Specific treatment (see product label). P330 - Rinse mouth. P363 - Wash contaminated clothing before reuse.
Storage Precautionary Statement:	P405 - Store locked up.
Disposal Precautionary Statement:	P501 - Dispose of contents/container in accordance with local, regional, national and international regulations.
DANGEROUS GOOD CLASSIFICATION:	Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".
Dangerous Goods Class:	8

3. COMPOSITION INFORMATION

Classification & type: Pure substance

Material	CAS No.	Proportion (%w)
Propionic acid	79-09-4	40 % (w/w)
Potassium hydroxide	1310-58-3	4 % (w/w)
Polyoxyethylene monolaurate	9004-81-3	54.5 % (w/w)
Ingredients determined to be Non-Hazardous		Balance

4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

Inhalation:	Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.
Skin Contact:	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If swelling, redness, blistering or irritation occurs seek medical assistance. For gross contamination, immediately drench with water and remove clothing. Continue to flush skin and hair with plenty of water (and soap if material is insoluble). For skin burns, cover with a clean, dry dressing until medical help is available. If blistering occurs, do NOT break blisters. If swelling, redness, blistering, or irritation occurs seek medical assistance.
Eye contact:	Immediately irrigate with copious quantities of water for 15 minutes. Eyelids to be held open. Remove clothing if contaminated and wash skin. Urgently seek medical assistance. Transport to hospital or medical centre.
Ingestion:	Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Immediately call Poisons Centre or Doctor.
PPE for First Aiders:	Wear overalls, gloves, face shield. Available information suggests that gloves made from nitrile rubber should be suitable for intermittent contact. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.
Notes to physician:	Treat symptomatically. Can cause corneal burns.

5. FIRE FIGHTING MEASURES

Hazchem Code:	2W
Suitable extinguishing media:	If material is involved in a fire use water fog (or if unavailable fine water spray), alcohol resistant foam, dry agent (carbon dioxide, dry chemical powder).
Specific hazards:	Acidic, pungent and unpleasant odour.
Firefighting further advice:	On burning or decomposing may emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion or decomposition.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILLS:	Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours or dust. Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labelled containers or drums for disposal.
LARGE SPILLS:	Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.

Dangerous Goods - Initial Emergency Response Guide No:
19

7. HANDLING AND STORAGE

Handling:	Avoid eye contact and skin contact. Avoid inhalation of vapour, mist or aerosols.
Storage:	Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Store away from sources of heat and/or ignition. Store locked up. Keep container standing upright. Keep containers closed when not in use - check regularly for leaks. This material is classified as a Class 8 Corrosive as per the criteria of the "New Zealand NZS5433: Transport of Dangerous Goods on Land" and/or the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and must be stored in accordance with the relevant regulations.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National occupational exposure limits:

	TWA		STEL		NOTICES
	ppm	mg/m ³	ppm	mg/m ³	
Potassium hydroxide		Ceiling 2			
Propionic acid	10	30			

As published by WorkSafe New Zealand.

WES-TWA	Workplace Exposure Standard - Time-weighted average. The average airborne concentration of a substance calculated over an eight-hour working day.
WES-Ceiling	Workplace Exposure Standard - Ceiling. A concentration that should not be exceeded at any time during any part of the working day.
WES-STEL	Workplace Exposure Standard - Short-term exposure limit. The 15-minute time weighted average exposure standard. Applies to any 15-minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Exposures at concentrations

between the WES-TWA and the WES-STEL should be less than 15 minutes, should occur no more than four times per day, and there should be at least 60 minutes between successive exposures in this range.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept too as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

Biological Limit Values:	As per the WorkSafe New Zealand the ingredients in this material do not have a Biological Limit Allocated.
Engineering Measures:	Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Use only in well ventilated areas. Use with local exhaust ventilation or while wearing appropriate respirator.
Personal Protection Equipment:	OVERALLS, GLOVES, FACE SHIELD. Personal protective equipment (PPE) must be suitable for the nature of the work and any hazard associated with the work as identified by the risk assessment conducted. Wear overalls, gloves, face shield. Available information suggests that gloves made from nitrile rubber should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.
Hygiene measures:	Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Wash hands prior to eating, drinking or smoking. Avoid contact with clothing. Avoid eye contact and skin contact. Avoid inhalation of vapour, mist or aerosols. Ensure that eyewash stations and safety showers are close to the workstation location.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Clear Liquid	Flash Point (°C):	> 150
Colour:	Red	Boiling Point/Range (°C):	> 150
Solubility:	Dispersible in water	Freezing Point (°C):	< 10
Specific Gravity:	1.04 - 1.06	pH:	3.6 - 4.4

10. STABILITY AND REACTIVITY

Chemical stability:	This material is thermally stable when stored and used as directed.
Conditions to avoid:	Elevated temperatures and sources of ignition.
Incompatible materials:	Oxidising agents.
Hazardous decomposition products:	Oxides of carbon and nitrogen, smoke and other toxic fumes.
Hazardous reactions:	No known hazardous reactions.

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

ACUTE EFFECTS

Inhalation:	Material may be an irritant to mucous membranes and respiratory tract.
Skin contact:	Contact with skin will result in severe irritation. Corrosive to skin - may cause skin burns.
Ingestion:	Harmful if swallowed. Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract.

Eye contact: A severe eye irritant. Corrosive to eyes: contact can cause corneal burns. Contamination of eyes can result in permanent injury.

ACUTE TOXICITY

Inhalation: This material has been classified as not hazardous for acute inhalation exposure. Acute toxicity estimate (based on ingredients): LC50 > 20.0 mg/L for vapours or LC50 > 5.0 mg/L for dust and mist.

Skin contact: This material has been classified as not hazardous for acute dermal exposure. Acute toxicity estimate (based on ingredients): LD50 > 2,000 mg/Kg bw

Ingestion: This material has been classified as a Category 4 Hazard. Acute toxicity estimate (based on ingredients): 300 < LD50 ≤ 2,000 mg/Kg bw

Corrosion/Irritancy: Eye: this material has been classified as a Category 1 Hazard (irreversible effects to eyes). Skin: this material has been classified as a Category 1B Hazard (irreversible effects to skin).

Sensitisation: Inhalation: this material has been classified as not a respiratory sensitiser. Skin: this material has been classified as not a skin sensitiser.

Aspiration hazard: This material has been classified as not an aspiration hazard.

Specific target organ toxicity (single exposure): This material has been classified as not a specific hazard to target organs by a single exposure.

CHRONIC TOXICITY

Mutagenicity: This material has been classified as non-hazardous.

Carcinogenicity: This material has been classified as non-hazardous.

Reproductive toxicity (including via lactation): This material has been classified as non-hazardous.

Specific target organ toxicity (repeat exposure): This material has been classified as non-hazardous.

12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

Acute aquatic hazard: This material has been classified as not hazardous for acute aquatic exposure. Acute toxicity estimate (based on ingredients): > 100 mg/L

Chronic aquatic hazard: This material has been classified as a Category Chronic 4 Hazard.

Ecotoxicity in the soil environment: This material has been classified as non-hazardous.

Ecotoxicity to terrestrial vertebrates: This material has been classified as harmful to terrestrial vertebrates.

Persistence and degradability: No information available.

Bioaccumulative potential: No information available.

Mobility: No information available.

13. DISPOSAL CONSIDERATIONS

Persons conducting disposal, recycling or reclamation activities should ensure that appropriate personal protection equipment is used, see "Section 8. Exposure Controls and Personal Protection" of this SDS.

If possible, material and its container should be recycled. If material or container cannot be recycled, dispose in accordance with local, regional, national and international Regulations.

14. TRANSPORT INFORMATION**ROAD AND RAIL TRANSPORT:**

Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".



UN No: 1848

Dangerous Goods Class: 8

Packing Group: III

Hazchem Code: 2W

Emergency Response Guide No: 19

Proper Shipping Name: PROPIONIC ACID

Segregation Dangerous Goods: Not to be loaded with explosives (Class 1), dangerous when wet substances (Class 4.3), oxidising agents (Class 5.1), organic peroxides (Class 5.2), radioactive substances (Class 7) or food and food packaging in any quantity. Note 1: Concentrated strong alkalis are incompatible with concentrated strong acids. Note 2: Concentrated strong acids are incompatible with concentrated strong alkalis. Note 3: Acids are incompatible with Dangerous Goods of Class 6 which are cyanides. Exemptions may apply.

MARINE TRANSPORT:

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.



UN No: 1848

Dangerous Goods Class: 8

Packing Group: III

Proper Shipping Name: PROPIONIC ACID

AIR TRANSPORT:

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.



UN No: 1848

Dangerous Goods Class: 8

Packing Group: III

Proper Shipping Name: PROPIONIC ACID

15. REGULATORY INFORMATION

All components of this product are listed on or exempt from the New Zealand Inventory of Chemical (NZIoC).

HSNO Approval Code:	HSR002491
HSNO Controls:	Trigger quantities for this substance:
SDS must be available for:	Any Quantity
Signage:	250L
Emergency plan:	1000L
Bunding:	1000L

Section 16: Other Information

Reason for issue: 5 Yearly Revision

This information was prepared in good faith from the best information available at the time of issue. It is based on the present level of research and to this extent we believe it is accurate. However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. The manufacturer will not be held responsible for any unauthorised use of this information or for any modified or altered versions.

If you are an employer, it is your duty to tell your employees, and any others that may be affected, of any hazards described in this sheet and of any precautions that should be taken.

Safety Data Sheets are updated frequently. Please ensure you have a current copy.

This SDS summarises our best knowledge of the health and safety hazard information available for this product and how to safely handle and use it. Since the use of this information and the conditions of the use of this product are not under the control of GroChem, it is the user's responsibility to determine conditions of safe use of the product.