according to WHS Regulations

Printing date 20.02.2023

Revision date: 20.02.2023

1 Identification

Product Name: LOVELAND PRODUCTS RADIATE GROWTH PROMOTANT

Other Means of Identification: Mixture

APVMA Approval Number: 83268

Recommended Use of the Chemical and Restriction on Use: Agricultural plant growth regulator

Details of Manufacturer or Importer: Nutrien Ag Solutions

Level 5, Building A 26 Talavera Road Macquarie Park NSW 2113

Phone Number: (02) 9889 5400

Emergency telephone number: 1800 033 111

2 Hazard(s) Identification

Hazardous Nature:

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition), IATA and IMDG/IMSBC.



Eye Irritation 2A H319 Causes serious eye irritation.

Signal Word Warning

Hazard Statements

H319 Causes serious eye irritation.

Precautionary Statements

P264	Wash thoroughly after handling.		
P280	Wear eye protection / face protection.		
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.		

3 Composition and Information on Ingredients

Chemical Characterization: Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Hazardous Components:

CAS: 133-32-4	Indole-3-butyric acid	0.5 - 1.0%
	♦ Acute Toxicity (Oral) 3, H301; Skin Corrosion/Irritation 2, H315; Eye Irritation 2A, H319	
CAS: 7647-01-0	Hydrochloric acid	0.5 - 1.0%
	♦ Skin Corrosion/Irritation 1B, H314; () STOT SE 3, H335	

4 First Aid Measures

Inhalation: If inhaled, remove to fresh air. Seek medical attention if breathing problems develop.

(Contd. on page 2)

according to WHS Regulations

Printing date 20.02.2023

Revision date: 20.02.2023

Product Name: LOVELAND PRODUCTS RADIATE GROWTH PROMOTANT

(Contd. of page 1)

Skin Contact:

In case of skin contact, immediately remove contaminated clothing and wash affected areas with water and soap. Seek medical attention if irritation occurs and persists.

Eye Contact:

In case of eye contact, rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Seek medical attention if irritation persists.

Ingestion:

If swallowed, do not induce vomiting. Immediately rinse mouth with water. Give a glass of water to drink in small sips. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Symptoms Caused by Exposure:

Inhalation: May cause respiratory irritation. Skin Contact: May cause skin irritation. Eye Contact: Causes eye irritation. Ingestion: May cause gastrointestinal irritation, nausea, diarrhoea and vomiting.

5 Fire Fighting Measures

Suitable Extinguishing Media: Use fire extinguishing methods suitable to surrounding conditions.

Specific Hazards Arising from the Chemical:

Hazardous combustion products include oxides of carbon, chlorine and various unidentified, potentially toxic compounds.

Product is not flammable.

Containers close to fire should be removed only if safe to do so. Use water spray to cool fire exposed containers.

Minimise un-off from fire fighting entering drains or water courses.

Special Protective Equipment and Precautions for Fire Fighters:

When fighting a major fire wear self-contained breathing apparatus and protective equipment.

6 Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures:

Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation. Take care as spill may cause a slip hazard.

Environmental Precautions:

In the event of a major spill, prevent spillage from entering drains or water courses.

Methods and Materials for Containment and Cleaning Up:

Wipe up small spills with a paper towel or dry rag. Clean up all spills immediately, since spilled materials, even in small quantities, may present a slip hazard. Absorb large spills with sand, earth, vermiculite or some other absorbent material. Collect the spilled material and place into a suitable container for disposal. Decontaminate spill area with water and detergents.

7 Handling and Storage

Precautions for Safe Handling:

Use of safe work practices are recommended to avoid eye or skin contact and inhalation of mists or sprays. Use only outdoors or in a well-ventilated area.

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. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

Conditions for Safe Storage:

Store in a cool, dry and well ventilated area. Keep container tightly closed when not in use. Protect from direct sunlight. Do not store with water, food or animal feed.

according to WHS Regulations

Printing date 20.02.2023

Revision date: 20.02.2023

Product Name: LOVELAND PRODUCTS RADIATE GROWTH PROMOTANT

(Contd. of page 2)

8 Exposure Controls and Personal Protection

Exposure Standards:

CAS: 7647-01-0 Hydrochloric acid

WES Peak limitation: 7.5 mg/m³, 5 ppm

Engineering Controls:

Ensure adequate ventilation of the working area, keeping airborne concentrations below occupational exposure standards.

Respiratory Protection:

Respiratory protection is not required under normal use conditions.

Use an approved respirator for acids (filter type E) under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapour, inadequate ventilation, development of respiratory tract irritation) and engineering controls are not feasible. See Australian Standards AS/NZS 1715 and 1716 for more information.

Skin Protection:

Chemical resistant gloves. See Australian/New Zealand Standard AS/NZS 2161 for more information. When selecting gloves for use against certain chemicals, the degradation resistance, permeation rate and permeation breakthrough time should be considered.

Occupational protective clothing (depending on conditions in which it has to be used, in particular as regards the period for which it is worn, which shall be determined on the basis of the seriousness of the risk, the frequency of exposure to the risk, the characteristics of the workstation of each worker and the performance of the protective clothing). See Australian/New Zealand Standard AS/NZS 4501 for more information.

Eye and Face Protection:

Safety glasses with top and side shields or goggles. See Australian/New Zealand Standards AS/NZS 1336 and 1337 for more information.

9 Physical and Chemical Properties

Appearance:	
Form:	Liquid
Colour:	Yellow
Odour:	Strong
Odour Threshold:	No information available
pH-Value:	3.1 - 3.7
Melting point/freezing point:	<0 °C
Initial Boiling Point/Boiling Range:	100 °C
Flash Point:	Does not flash up to boiling
Flammability:	Not applicable
Auto-ignition Temperature:	No information available
Decomposition Temperature:	No information available
Explosion Limits:	
Lower:	No information available
Upper:	No information available
Vapour Pressure:	No information available
Relative Density:	approx. 1.04
Vapour Density:	No information available
Evaporation Rate:	No information available
Solubility in Water:	Soluble
Partition Coefficient (n-octanol/wate	r): No information available

10 Stability and Reactivity

Possibility of Hazardous Reactions: No dangerous reactions known under conditions of normal use.

according to WHS Regulations

Printing date 20.02.2023

Revision date: 20.02.2023

Product Name: LOVELAND PRODUCTS RADIATE GROWTH PROMOTANT

(Contd. of page 3)

Chemical Stability: Stable at ambient temperature and under normal conditions of storage and use.

Conditions to Avoid: Direct sunlight.

Incompatible Materials: None known.

Hazardous Decomposition Products:

Oxides of carbon, chlorine and various unidentified, potentially toxic compounds.

11 Toxicological Information

Toxicity:

LD50/LC50 Values:

CAS: 133-32-4 Indole-3-butyric acid

Oral LD50 100 mg/kg (mus)

Acute Health Effects

Inhalation: May cause respiratory irritation.
Skin: May cause skin irritation.
Eye: Causes eye irritation.
Ingestion: May cause gastrointestinal irritation, nausea, diarrhoea and vomiting.

Skin Corrosion / Irritation: Based on classification principles, the classification criteria are not met.

Serious Eye Damage / Irritation: Causes serious eye irritation.

Respiratory or Skin Sensitisation: Based on classification principles, the classification criteria are not met.

Germ Cell Mutagenicity: Based on classification principles, the classification criteria are not met.

Carcinogenicity:

Based on classification principles, the classification criteria are not met. Hydrochloric acid is classified by IARC as Group 3 - Not classifiable as to its carcinogenicity to humans.

Reproductive Toxicity: Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Single Exposure: Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Repeated Exposure: Based on classification principles, the classification criteria are not met.

Aspiration Hazard: Based on classification principles, the classification criteria are not met.

Chronic Health Effects: No information available

Existing Conditions Aggravated by Exposure: No information available

12 Ecological Information

Ecotoxicity:

Aquatic toxicity:

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and Degradability: No data available on finished product.

Bioaccumulative Potential: No data available on finished product.

Mobility in Soil: No data available on finished product.

Other adverse effects: No further relevant information available.

according to WHS Regulations

Printing date 20.02.2023

Revision date: 20.02.2023

Product Name: LOVELAND PRODUCTS RADIATE GROWTH PROMOTANT

(Contd. of page 4)

13 Disposal Considerations

Disposal Methods and Containers: Dispose according to applicable local and state government regulations.

Special Precautions for Landfill or Incineration:

Please consult your state Land Waste Management Authority for more information.

14 Transport Information

regulated

Proper Shipping Name Not regulated

Dangerous Goods Class Not regulated

Packing Group: Not regulated

15 Regulatory Information

Australian Inventory of Industrial Chemicals:

All components are on the inventory, or in compliance with the inventory.

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Poison Schedule: Poisons Schedule: 5

Australian Pesticides and Veterinary Medicines Authority:

This product is registered with the Australian Pesticides and Veterinary Medicines Authority. APVMA approval number 83268.

16 Other Information

Date of Preparation or Last Revision: 20.02.2023

Prepared by: MSDS.COM.AU Pty Ltd

www.msds.com.au

Abbreviations and acronyms:

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

IARC: International Agency for Research on Cancer

STEL: Short Term Exposure Limit TWA: Time Weighted Average

NES: National Exposure Standard (Safe Work Australia - Workplace Exposure Standards For Airborne Contaminants)

Acute Toxicity (Oral) 3: Acute toxicity – Category 3

Skin Corrosion/Irritation 1B: Skin corrosion/irritation - Category 1B

Skin Corrosion/Irritation 2: Skin corrosion/irritation – Category 2

Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A

STOT SE 3: Specific target organ toxicity (single exposure) - Category 3

Disclaimer

This SDS is prepared in accord with the Safe Work Australia document "Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - July 2020".

The information contained in this safety data sheet is provided in good faith and is believed to be accurate at the date of issuance. Nutrien Ag Solutions makes no representation of the accuracy or comprehensiveness of the information and to the full extent allowed by law excludes all liability for any loss or damage related to the supply or use of the information in this material safety data sheet. MSDS.COM.AU Pty Ltd is not in a position to warrant the accuracy of the data herein. The user is cautioned to make their own determinations as to the suitability of the information provided to the particular circumstances in which the product is used.