SAFETY DATA SHEET

Issue Date: 30/06/2022
Revision Date: 30/06/2027

1. CHEMICAL INDENTIFICATION AND COMPANY INFORMATION

Product Identifiers

Product Name: 24-Epibrassinolide
Product Number: E244

Other means of identification

Synonyms: (22R/S,23R/S,24R)-2α,3α,22,23-Tetrahydroxy-β-homo-7-oxa-5α-ergostan-6-one

Recommended Use For Research/Laboratory Use ONLY

Restrictions on Use Products manufactured by PhytoTechnology Laboratories and supplied by Austratec Pty Ltd are intended for research and laboratory use ONLY. Products are NOT to be used as human or animal therapeutics, cosmetics, agricultural or pesticidal products, food additives, or as household chemicals.

Details of Importer/Supplier

Company: Austratec Pty Ltd, Factory 12/49 Corporate Blvd, Bayswater VIC 3153, AUSTRALIA
Telephone: +61 3 9729 4528
Fax: +61 3 9729 4578
Website: www.austratec.com.au

Emergency phone number 13 11 26 (24 hour – Poisons Information Centre)

2. HAZARD(S) IDENTIFICATION

GHS Classification Not classified as hazardous according to the Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(2004)] 3rd Edition, Safe Work Australia.

GHS Label elements, including precautionary statements

Pictogram: None Signal Word: None

Hazard Statement(s) None

Precautionary statement(s)

Prevention: None

Response: None

Storage: None

Disposal: None

3. COMPOSITION AND INFORMATION ON INGREDIENTS

CAS Number: 78821-43-9 EC Number: None
Formula: $C_{28}H_{48}O_6$ Molecular Weight: 480.68 g/mol

INGREDIENT	CAS NUMBER	PERCENTAGE	HAZARDOUS
24-Epibrassinolide	78821-43-9	>90%	No exposure limits established by OSHA or ACGIH

4. FIRST AID MEASURES

Description of first aid measures

General advice: Consult a doctor/physician. Show this safety data sheet to the doctor in attendance.

Ingestion: MAY CAUSE IRRITATION IF SWALLOWED. If swallowed, wash mouth out with water. Never give anything by mouth to an unconscious person. Seek medical attention.

Inhalation: MAY CAUSE IRRITATION TO RESPIRATORY TRACT. Safely remove person to fresh air. If not breathing, begin cardiopulmonary resuscitation (CPR). If breathing is difficult, ensure clear airway and give oxygen. Seek medical attention.

Eye contact: DIRECT CONTACT MAY CAUSE IRRITATION, REDNESS, TEARING, OR BLURRED VISION. Flush eye out immediately with water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek medical attention if irritation persists.

Skin contact: MAY CAUSE IRRITATION, REDDENING, ITCHING OR INFLAMATION. Wash area thoroughly with soap and water. Remove and wash contaminated clothing. Seek medical attention.

Most important symptoms and effects, both acute and delayed

See section 2 and/or section 11

Recommendation for immediate medical attention and special treatment needed

No data available

5. FIRE FIGHTING MEASURES

Suitable extinguishing media Water spray, carbon dioxide, dry chemical powder, or appropriate foam. Use extinguishing media suitable for surrounding fire.

Specific hazards arising from the chemical

Hazardous combustion products: May emit toxic fumes under fire conditions.

Toxic gases produced: Carbon dioxide, carbon monoxide, nitrogen oxides.

Special protective equipment and precaution for firefighters In the event of fire, wear full protective clothing and NIOSH (US) or EN145 (EU) approved self contained breathing apparatus. Evacuate the area and fight fire from a safe distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures Use personal protection equipment (PPE) recommended in Section 8. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation especially in confined areas. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleanup Wear suitable protective clothing. Avoid dust formation. Carefully sweep up and remove. Place in a dry container and cover. Remove from area for safe disposal (see section 13). Flush spill area with water. Do not let product enter drain.

7. HANDLING AND STORAGE

Precautions for safe handling Avoid contact with skin and eyes. Avoid dust formation and aerosols. Avoid incompatible substances. Provide appropriate exhaust ventilation where dust is formed. Wash thoroughly after use.

Conditions for safe storage	Keep in a tightly closed container and store in a cool, dry and well ventilated area.
Recommended Storage Temperature	-20 – 0°C.
Incompatibilities	Strong oxidizing agents.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure control measures

Australian Exposure Standards (TWA;STEL):	No data available
OSHA's permissable exposure limits (PEL's):	No data available
ACGIH threshold limit values (TLV's):	No data available
Engineering controls	Handle in accordance to general industrial hygiene and chemical safety practice.

Personal protective equipment (PPE)

Eye Face Protection:	Chemical safety shield, glasses or goggles approved under NIOSH (US) or EN166 (EU). Have eye washing facilities readily available where eye contact can occur.
Skin Protection:	Suitable protective gloves.
Body Protection:	Lab coat or protective chemical suit. Protective equipment must be selected in accordance to the amount of dangerous substance within the specific workplace.
Respiratory Protection:	Use an appropriate dust mask. Use N95 (US) or type P1 (EN143) dust mask where dust level is a nuisance. Appropriate respirator approved under NIOSH (US) or CEN (EU).

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White powder
Odour	Odourless
Odour threshold	No data available
pH	Under development
Melting point	254 - 256°C
Initial boiling point/boiling range	No data available
Flash point (closed cup)	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Flammable limits (upper %)	No data available
Flammable limits (lower %)	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available
Solubility	Soluble in DMSO. Slightly soluble in water (approx. 5mg/L)

Partition coefficient (n-octanol/water)	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available

10. STABILITY AND REACTIVITY

Reactivity	No data available
Chemical stability	Stable under normal conditions of use and recommended storage conditions.
Possibility of hazardous reactions	Will not occur
Conditions to avoid	Moisture
Incompatible materials	Strong oxidizing agents
Hazardous decomposition products	Carbon dioxide, carbon monoxide, nitrogen oxides.

11. TOXICOLOGICAL INFORMATION

Acute toxicity	LD_{50} (Oral, Rat)(mg/Kg):	No data available
	LD_{50} (Oral, Mouse)(mg/Kg):	No data available
	LD_{50} (Dermal, Rabbit)(mg/Kg):	No data available
Skin corrosion/irritation	No data available	
Serious eye damage/irritation	No data available	
Respiratory or skin sensitisation	No data available	
Germ cell mutagenicity	No data available	
Carcinogenicity	NTP:	No
	IARC:	No
	Z List:	No
	OSHA Reg:	No
Reproductive toxicity	No data available.	
Specific target organ toxicity (STOT)	Single Exposure:	No data available
	Repeated Exposure:	No data available
Aspiration hazard	No data available	
Target organs	None identified	
Medical conditions aggravated by exposure	No data available	
Routes of entry	Inhalation, ingestion	
Symptoms associated with overexposure	Irritation, itching, gastrointestinal upset, nausea.	
NIOSH/RTECS No.	Not Listed	

The toxicological properties of this product have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

Ecotoxicity No data available

Persistence and degradability No data available

Bioaccumulative potential No data available

Mobility in soil No data available

Other adverse effects No data available

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13. DISPOSAL CONSIDERATIONS

Disposal procedure Dispose in accordance with all applicable government, state, and environmental chemical safety practices.

EPA hazardous waste number No data available.

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14. TRANSPORT INFORMATION

UN number
ADG: Non-Dangerous Goods
IMDG: Non-Dangerous Goods
IATA: Non-Dangerous Goods

Proper shipping/technical name Non-Dangerous Goods

Hazard Class No data available

Packing group No data available

Environmental hazards No data available

Special precautions No data available

Hazchem Non-Dangerous Goods

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15. REGULATORY INFORMATION

Notification Status

Australia (AICS):	Listed	
New Zealand (NZIoC):	Not determined	
USA (TSCA):	Listed	
SARA TITLE III:	Section 302 (EHS) Ingredients:	No
	Section 313 Ingredients:	No
	Section 304 (EHS/CERCLA) Ingredients:	No
	Section 311/312 Hazard:	No SARA hazards.

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16. OTHER INFORMATION

HMIS Rating:	Health Hazard	Chronic Health Hazard	Flammability	Physical Hazard
	0		0	0
NFPA Rating:	Health Hazard	Fire Hazard	Reactivity Hazard	Special Hazard
	0	0	0	

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