

SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1. Product Identifier:**

Plantsmith Orchid Feed

2. Relevant uses of the substance or mixture and uses advised against:

Supplied for use as a plant feed

3. Details of the supplier of the safety data sheet:

Jigsaw Marketing & Media Ltd
Richard Jackson Garden Unit G.01
Power Road Studios
114 Power Road
London
W4 5PY

Contact: The Safety Officer

Phone number: +44 (0) 203 198 2355

Email: chris@richardjacksonsgarden.co.uk

4. Emergency phone number

Phone number: +44 (0) 7980092863

2. HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture**

CLASSIFICATION according to Regulation (EC) 1272/2008 Classification, Labelling and Packaging
Not classified.

2.2 Label Elements

There are no statutory label elements.

Pictogram: None

Signal word: None

Hazard statements: None

Precautionary statements:

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

2.3 Other Hazards

Mixture not classed as PBT or vPvB

3. COMPOSITION/INFORMATION ON INGREDIENTS**3.2 Mixtures**

Hazardous components

Name:	CAS/EC No.	Index No./ REACH Registration No.	Pictogram(s) according to 1272/2008:	H-phrase(s) according to 1272/2008:	Concentrations [% w/w]
Sodium molybdate	10102-40-6/ 231-551-7	-/ 01-2119489495- 21	None	None Substance with Workplace Exposure Limit	< 0.005

4.0. FIRST AID MEASURES

4.1 Description of first aid measures

4.1.1 Inhalation

Remove from source of exposure to fresh air; seek medical attention if symptoms persist or develop.

4.1.2 Skin & Eye exposure

Drench immediately with water. Remove any contaminated clothing and launder before re-use. Seek medical attention if symptoms persist or develop.

Eyes: Rinse cautiously for several minutes, remove contact lenses, if present and easy to do, rinse with clean water for 15 minutes. Seek medical attention if symptoms persist or develop.

4.1.3 Ingestion

Do not induce vomiting. Wash out mouth with water and give water to drink. Obtain medical attention if symptoms persist or develop.

4.2 Most important symptoms and effects, both acute and delayed

None reported.

4.3 Indication of any immediate medical attention and special treatment needed.

Information not available

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Use Foam, carbon dioxide, dry powder, sand. The mixture is not classified as flammable as such extinguishing media should be chosen as appropriate for surrounding materials.

5.2 Special Hazards arising from the substance or mixture

Possible irritant fumes arising from combustion

5.3 Advice for fire-fighters

Cool down containers/equipment exposed to heat with a water spray. Contain spread of extinguishing fluids (these fluids may be hazardous for the environment). Wear complete protective clothing and self-contained breathing apparatus

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

The following precautions are considered to be good practice when using any chemicals irrespective of their classification unless otherwise specified.

Use personal protective equipment

- appropriate coveralls and gloves
- eye/face protection
- appropriate respirator

Avoid contact with skin and eyes

6.2 Environmental Precautions

Do not allow to enter storm drains or water courses. If this product enters a water course or a sewer (including via contaminated soil & vegetation) contact local water authority and inform the Environment Agency

6.3 Methods and material for containment and cleaning up

Use soil, sand or other absorbent material. Contact specialist waste disposal contractor.

6.4 Reference to other sections

No reference necessary

7. HANDLING AND STORAGE

7.1 Precaution for safe handling

Avoid contact with skin and eyes. Wash Hands thoroughly after handling

Do not eat, drink or smoke when using this product. remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool dry atmosphere, in original labelled containers. Refer to manufacturer for maximum safe stacking height. Keep away from heat sources, combustible materials.

7.3 Specific end use(s)

Supplied for use as a plant feed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

Workplace exposure Limits as defined by UK HSE in document EH40/2005 4th Edition, 2020 where available:

Substance	CAS number	Workplace Exposure Limit				Comments
		Long-term exposure limit (8-hr TWA reference period)		Short-term exposure limit (15 minute reference period)		
		ppm	mg.m ⁻³	ppm	mg.m ⁻³	
Molybdenum compounds (as Mo)	-	-	5	-	10	The Carc, Sen and Sk notations are not exhaustive. Notations have been applied to the substances identified in IOELV Directives
soluble compounds		-	10	-	20	
insoluble compounds		-	10	-	20	

Sodium molybdate:**DNEL/DMEL (Workers)**

Long-term - systemic effects, inhalation 23.97 mg/m³

DNEL/DMEL (General population)

Long-term - systemic effects, oral 7.3 mg/kg bodyweight/day

Long-term - systemic effects, inhalation 7.15 mg/m³

PNEC (Water)

PNEC aqua (freshwater) 27.25 mg/l

PNEC aqua (marine water) 4.08 mg/l

PNEC (Sediment)

PNEC sediment (freshwater) 48500 mg/kg dwt

PNEC sediment (marine water) 4250 mg/kg dwt

PNEC (Soil)

PNEC soil 20.39 mg/kg dwt

PNEC (STP)

PNEC sewage treatment plant 46.57 mg/l

Source: SDS, Growth Technology, 14/01/2021

8.2 Exposure controls

Engineering measures: Not applicable.

Respiratory protection: Respiratory protection not required.

Hand protection: Not applicable.

Eye protection: Safety glasses.

Skin protection: Not applicable.

Environmental: No special requirement.

9. PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties**

Physical state : Liquid

Appearance : Clear to slightly hazy liquid.

Colour : dark brown.

Odour : faint specific odour.

Odour threshold : Not applicable as product has a barely detectable odour

pH : 3 – 4

Relative evaporation rate (butylacetate=1) : Not determined

Melting point : Not applicable (aqueous liquid)

Freezing point : ≈ 0 °C

Boiling point : ≈ 100 °C

Flash point : Not applicable (aqueous non combustible product)

Auto-ignition temperature : Not applicable (aqueous non combustible product)

Decomposition temperature : Not determined for product as chemical composition does not present hazard.

Flammability (solid, gas) : Not applicable (aqueous liquid)

Vapour pressure : Not determined, product is non volatile and therefore not expected to pose a hazard.

Vapour pressure at 50 °C : Not determined, product is non volatile and therefore not expected to pose a hazard.

Relative vapour density at 20 °C : Not determined, product is non volatile at 20°C and therefore not expected to pose a hazard.

Relative density : 1.07

Density : 1070 kg/m³

Solubility : Miscible (in all proportions) with : water.

Partition coefficient n-octanol/water (Log Pow) : Not determined as product is inorganic
Partition coefficient n-octanol/water (Log Kow) : Not determined as product is inorganic
Viscosity, kinematic : No data available
Viscosity, dynamic : Not determined as product has low viscosity and this property is not considered relevant for usage or hazard potential of product
Explosive properties : Not expected to be a fire/explosion hazard under normal conditions of use.
Oxidising properties : Does not meet the criteria for classification as oxidising.
Explosive limits : Not determined as not considered to pose an explosion hazard under normal conditions of usage or storage Not applicable (aqueous non combustible product)

9.2 Other Information

No other relevant information available

10. STABILITY AND REACTIVITY

10.1 Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2 Chemical Stability

Stable under normal conditions of use

10.3 Possibility of hazardous reactions

No potentially hazardous reactions known.

10.4 Conditions to avoid

Heat and combustible materials.

10.5 Incompatible materials

Strong bases

10.6 Hazardous decomposition products

No hazardous decomposition products known at room temperature. Combustion products may include the following: carbon oxides (CO, CO₂) (carbon monoxide, carbon dioxide) nitrogen oxides (NO, NO₂ etc.).

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:	Product is not classified for acute toxicity
Skin corrosion/irritation:	Product is not classified as a skin corrosive/irritant.
Serious eye damage/irritation:	Product is not classified as causing serious eye damage or irritation.
Respiratory or skin sensitisation:	Product is not classified for respiratory or skin sensitisation.
Germ cell mutagenicity:	No information specified.
Carcinogenicity:	No information specified.
Reproductive toxicity:	No information specified.
STOT-single exposure:	Product is not classified as having Specific Target Organ Toxicity for single exposure
STOT-repeated exposure:	No information specified.
Aspiration hazard:	No information specified.

Sodium molybdate:

LD50 dermal rat > 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)

LD50 dermal > 2000 mg/kg bodyweight
LC50 Inhalation - Rat > 1.93 mg/l/4h
NOAEC (inhalation, rat, dust/mist/fume, 90 days) > 0.1 mg/l air Animal: rat, Guideline: OECD
Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)
Source: SDS, Growth Technology, 14/01/2021

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Mixture not classified as harmful to aquatic life

Sodium molybdate

LC50 fish 1 ≈ 609.1 mg/l
EC50 Daphnia 1 ≈ 131 ml/l
EC50 72h algae (1) ≈ 333.1 mg/l
NOEC chronic fish > 121 mg/l 84d
NOEC chronic crustacea ≈ 79 mg/l 30d

Source: SDS, Growth Technology, 14/01/2021

2.2 Persistence and degradability

Expected to be biodegradable.

Sodium molybdate

Persistence and degradability Readily biodegradable.

Source: SDS, Growth Technology, 14/01/2021

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (Log Pow) Not determined as product is inorganic
Partition coefficient n-octanol/water (Log Kow) Not determined as product is inorganic
Bioaccumulative potential Bioaccumulation is not expected to occur.

Sodium molybdate

Bioaccumulative potential Low bioaccumulation potential.

Source: SDS, Growth Technology, 14/01/2021

12.4 Mobility in soil

Ecology - soil Expected to be highly mobile in soil.

Sodium molybdate

Ecology - soil No data available.

Source: SDS, Growth Technology, 14/01/2021

12.5 Results of PBT and vPvB

This product does not contain any substances classified as PBT or vPvB.

12.6 Other adverse effects

No additional information available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Regional legislation (waste) : Disposal must be done according to official regulations.

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Sewage disposal recommendations : Prevent entry to sewers and public waters.

Product/Packaging disposal recommendations : a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

Ecology - waste materials : Avoid release to the environment.

14. TRANSPORT INFORMATION

14.1 UN number: Product is unclassified for transport.

14.2 UN proper shipping name: Product is unclassified for transport.

14.3 Transport hazard: Product is unclassified for transport.

14.4 Packing group: Product is unclassified for transport.

14.5 Environmental hazards: Product is unclassified for transport.

14.6 Special precautions for user: Not specified

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code

Applicable for Maritime bulk transport only. Check with carrier.

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture.

This substance is classified and labelled in accordance with Regulation (EC) No 1272/2008 and the EC Fertiliser Regulations 2003, Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

15.2 Chemical Safety Assessment

A chemical safety assessment according to (EC) regulation 1907/2006 (REACH) has not been carried out for this product.

For the following substance of this mixture a chemical safety assessment has been carried out:

Sodium molybdate

16. OTHER INFORMATION

Abbreviations:

DNEL	Derived-No Effect Level	
EC50	Median effective concentration	
DMEL	Derived Minimal Effect level	LC50
LD50	Median lethal dose	Median lethal concentration
LOAEL	Lowest Observed Adverse Effect Level	
NOAEC	No-Observed Adverse Effect Concentration	
NOAEL	No-Observed Adverse Effect Level	
NOEC	No-Observed Effect Concentration	
PNEC	Predicted No-Effect Concentration	
PBT	Persistent, Bioaccumulative, Toxic	
vPvB	very Persistent, very Bioaccumulative	

SDS information:

This Safety data sheet is compiled using data submitted for raw materials and practical experience.

This Safety Data Sheet is prepared in compliance with Regulation 1272/2008 and Annex II of the REACH Regulation 453/2010.

The information given herein is, to the best of our knowledge, correct and is presented in good faith but no warranty, expressed or implied is given.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release, and is not to be considered a warranty of quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

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