

SAFETY DATA SHEET

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

1. Product Identifier:

Plantsmith Orchid Mist

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

Fertiliser

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

Hazard pictograms (CLP): None
Extra phrases: Non hazardous mixture.

2.3 Other Hazards

Other hazards not contributing to the classification: None under normal conditions. Bioaccumulation is not expected to occur.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable

3.2 Mixtures

Name:	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]

Sodium molybdate	(CAS-No.) 10102-40-6 (EC-No.) 231-551-7 (REACH-no) 01-2119489495-21	<0.005	Not classified
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Comments: Contains no other components which will influence the classification of the product.

4.0. FIRST AID MEASURES

4.1 Description of first aid measures

First-aid measures general: If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Give oxygen or artificial respiration if necessary. Get medical advice/attention if you feel unwell.

First-aid measures after skin contact: Rinse skin with water/shower.

First-aid measures after eye contact: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

First-aid measures after ingestion: Get medical advice/attention if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms/effects: Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/effects after inhalation: Coughing, sneezes.

Symptoms/effects after skin contact: None under normal conditions.

Symptoms/effects after eye contact: May cause slight irritation.

Symptoms/effects after ingestion: Ingestion may cause nausea and vomiting.

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

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Use extinguishing agent suitable for surrounding fire. Dry chemical, CO₂, or water spray or regular foam.

5.2 Special Hazards arising from the substance or mixture

Fire hazard: Not flammable.

Explosion hazard: No direct explosion hazard.

Reactivity in case of fire: None to our knowledge.

Hazardous decomposition products in case of fire: Combustion products may include the following: carbon oxides (CO, CO₂) (carbon monoxide, carbon dioxide) nitrogen oxides (NO, NO₂ etc.).

5.3 Advice for fire-fighters

Firefighting instructions: Do not allow run-off from fire-fighting to enter drains or water courses.

Protection during firefighting: Self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

General measures: Keep out of reach of children. Do not handle until all safety precautions have been read and understood.

6.1.1. For non-emergency personnel

Protective equipment: Concerning personal protective equipment to use, see section 8.

Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment: Concerning personal protective equipment to use, see section 8.

Emergency procedures: Evacuate unnecessary personnel.

6.2 Environmental Precautions

Avoid release to the environment. Prevent entry to sewers and public waters.

6.3 Methods and material for containment and cleaning up

For containment: Stop leak without risks if possible. Cover spill with non combustible material, e.g.: sand, earth, vermiculite. For a large spillage, contain the spillage by bunding.

Methods for cleaning up: Take up liquid spill into absorbent material. Shovel or sweep up and put in a closed container for disposal. Clean contaminated surfaces with an excess of water.

6.4 Reference to other sections

SECTION 8. SECTION 11. SECTION 13.

7. HANDLING AND STORAGE

7.1 Precaution for safe handling

Additional hazards when processed: Not expected to present a significant hazard under anticipated conditions of normal use.

Precautions for safe handling: Not required for normal conditions of use.

Hygiene measures: Always wash hands after handling the product. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures: Keep out of reach of children.

Storage conditions: Keep only in original container. Keep cool. Protect from sunlight. Protect from frost.

Incompatible products: Strong bases.

Storage temperature: 6 – 30 °C

7.3 Specific end use(s)

Fertilisers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

Sodium molybdate (10102-40-6)

United Kingdom - Occupational Exposure Limits

Local name: Molybdenum compounds (as Mo) - soluble compounds

WEL TWA (mg/m³): 5 mg/m³

WEL STEL (mg/m³): 10 mg/m³

Regulatory reference: EH40/2005 (Fourth Edition, 2020). HSE.

Sodium molybdate (10102-40-6)

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

8.2 Exposure controls

Appropriate engineering controls: Not required for normal conditions of use.

Personal protective equipment: No special precautions are necessary if the product is used correctly.

Materials for protective clothing: Not required for normal conditions of use.

Hand protection: Not required for normal conditions of use.

Eye protection: No special precautions are necessary if the product is used correctly.

Skin and body protection: Not required for normal conditions of use.

Respiratory protection: No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation.

Thermal hazard protection: Not required for normal conditions of use.

Environmental exposure controls: Avoid release to the environment.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Clear to slightly hazy liquid.

Colour : brown.

Odour : Lavender

Odour threshold : Not applicable

pH : 5 – 6

Relative evaporation rate (butylacetate=1) : Not determined

Melting point : Not applicable (aqueous liquid)

Freezing point : $\approx 0\text{ }^{\circ}\text{C}$

Boiling point : $\approx 100\text{ }^{\circ}\text{C}$

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

Density : 1000 kg/m³

Solubility : soluble in 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 dangerous reactions known under normal conditions of use.

10.4 Conditions to avoid

Keep out of direct sunlight. Protect from freezing.

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 (oral): Not classified

Acute toxicity (dermal): Not classified

Acute toxicity (inhalation): Not classified

Sodium molybdate (10102-40-6)

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

Skin corrosion/irritation: Not classified, pH: 5 – 6

Serious eye damage/irritation: Not classified, pH: 5 – 6

Respiratory or skin sensitisation: Not classified

Germ cell mutagenicity: Not classified

Carcinogenicity: Not classified

Reproductive toxicity: Not classified

STOT-single exposure: Not classified

STOT-repeated exposure: Not classified

Sodium molybdate (10102-40-6)

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)
Aspiration hazard: Not classified.

12. ECOLOGICAL INFORMATION**12.1 Toxicity**

Ecology - general: The product is not considered harmful to aquatic organisms nor to cause long term adverse effects in the environment.

Hazardous to the aquatic environment, short-term (acute): Not classified

Hazardous to the aquatic environment, long-term (chronic): Not classified

Sodium molybdate (10102-40-6)

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

2.2 Persistence and degradability

Expected to be biodegradable.

Sodium molybdate (10102-40-6)

Persistence and degradability: Readily biodegradable:

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 (10102-40-6)

Bioaccumulative potential: Low bioaccumulation potential.

12.4 Mobility in soil

Expected to be highly mobile in soil.

Sodium molybdate (10102-40-6)

Ecology - soil: No data available.

12.5 Results of PBT and vPvB

Bioaccumulation is not expected to occur.

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

No supplementary information available.

14.6. Special precautions for user

Overland transport: Not applicable

Transport by sea: Not applicable

Air transport: Not applicable

Inland waterway transport: Not applicable

Rail transport: Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

15. REGULATORY INFORMATION

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants.

15.1.2. National regulations

No additional information available.

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 substances of this mixture a chemical safety assessment has been carried out.

Sodium molybdate.

16. OTHER INFORMATION

Abbreviations:

SDS: Safety Data Sheet

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

DNEL: Derived-No Effect Level

PNEC: Predicted No-Effect Concentration

CAS-No.: Chemical Abstract Service number

EC-No.: European Community number

EN: European Standard

OEL: Occupational Exposure Limit

ATE: Acute Toxicity Estimate

CLP: Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008

EC50: Median effective concentration

DMEL: Derived Minimal Effect level

IATA: International Air Transport Association

IMDG: International Maritime Dangerous Goods

LC50: Median lethal concentration

LD50: Median lethal dose

LOAEL: Lowest Observed Adverse Effect Level

NOAEC: No-Observed Adverse Effect Concentration

NOAEL: No-Observed Adverse Effect Level

NOEC: No-Observed Effect Concentration

PBT: Persistent Bioaccumulative Toxic

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006

RID: Regulations concerning the International Carriage of Dangerous Goods by Rail

vPvB: Very Persistent and Very Bioaccumulative

IOELV: Indicative Occupational Exposure Limit Value

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.

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