

SAFETY DATA SHEET

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

1. Product Identifier:

Plantsmith Invigorating Cacti & Succulent 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
PO Box 703
Bucks
HP6 9BX

Contact: The Safety Officer

Phone number: +44 (0) 20 7788 7686

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

Plantsmith Invigorating Cacti & Succulent Feed

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	Pictogram(s) according	H-phrase(s) according to 1272/2008:	Concentrations [% w/w]
Ammonium nitrate	6484-52-2/ 229-347-8	-/ 01-211949098 1-27	GHS03  GHS07 	Ox. Sol. 3; H272 Eye Irrit. 2; H319 Specific Concentration Limits: Eye Irrit. 2; H319: 80 % ≤ C ≤ 100%	5 - 10
Sodium molybdate	7631-95-0/ 231-551-7	-/ 01-211948949 5-21	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

For exposure control and individual protection measures, see section 8.

For later elimination of waste, follow the recommendations under section 13.

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

DNELs/PNECs:

Sodium molybdate:

DNEL/DMEL	Type	Value
DNEL (Workers)	Long-term - systemic effects, inhalation	23.97 mg/m ³
DNEL (General population)	Long-term - systemic effects, oral	7.3 mg/Kg bodyweight/day
DNEL (General population)	Long-term - systemic effects, inhalation	7.15 mg/ m ³
PNEC aqua	Freshwater	27.25 mg/l
PNEC aqua	Marine water	4.08 mg/l
PNEC sediment	Freshwater	48500 mg/kg dwt
PNEC sediment	Marine water	4250 mg/kg dwt
PNEC soil	-	20.39 mg/kg dwt
PNEC sewage treatment plant	-	46.57 mg/l

Source: SDS, Growth Technology 01/06/2022

8.2 Exposure controls

Engineering measures: Not applicable.

Respiratory protection: Respiratory protection not required.

Hand protection: Protective gloves.

Eye protection: Safety glasses.

Skin protection: PPE: Work footwear.

Characteristics: «CE» marking, category II.

CEN standards: EN ISO 13287, EN 20347

Maintenance: This product adapts to the first user's foot shape. That is why, as well as for hygienic reasons, it should not be used by other people.

Observations: Work footwear for professional use includes protection elements aimed at protecting users against any injury resulting from an accident.

Environmental: No special requirement.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state : Liquid

Colour : Clear to slightly hazy liquid, light brown yellow to brown.

Odour : faint specific odour.

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

Melting point: Not available

Freezing point: ~ 0 °C

Boiling point or initial boiling point and boiling range: 100 °C

Flammability: Not flammable

Lower explosion limit: Not applicable.

Upper explosion limit: Not applicable.

Flash point: Not applicable.

Auto-ignition temperature: Not applicable.

Decomposition temperature: Not determined.

pH: 3-4

Kinematic viscosity: Not determined.

Solubility: Miscible in all proportions with water.

Partition coefficient n-octanol/water (log value): Not determined as product is inorganic.

Vapour pressure: Not determined.

Relative density: 1.06

Density: 1060 Kg/m³

Relative vapour density: Not determined.

Particle characteristics: Not applicable.

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:	Product is not classified for acute toxicity
Skin corrosion/irritation:	Product is not classified as skin corrosion or irritant.
Serious eye damage/irritation:	Product is not classified as 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.

Ammonium nitrate:

LD50 oral rat	2950 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LC50 dermal rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)

Sodium molybdate:

LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 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 01/06/2022

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Mixture not classified as harmful to aquatic life

Ammonium nitrate:

EC50 - Crustacea 490 mg/l Test organisms (species): Daphnia magna

Sodium molybdate:

LC50 - Fish	609.1 mg/l
EC50 – Crustacea	131 ml/l
EC50 72h – Algae	333.1 mg/l
NOEC chronic fish	121 mg/l 84 d
NOEC chronic crustacea	79 mg/l 30 d

Source: SDS, Growth Technology 01/06/2022

12.2 Persistence and degradability

Richard Jackson Cactus Feed

Persistence and degradability: Expected to be biodegradable.

Sodium molybdate

Persistence and degradability: Readily biodegradable.

12.3 Bioaccumulative potential

Richard Jackson Cactus Feed

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.

Ammonium nitrate

Bioaccumulative potential: Low bioaccumulation potential.

12.4 Mobility in soil

Richard Jackson Cactus Feed

Ecology - 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

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

12.6 Other adverse effects

No information is available about other adverse effects for the environment.

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.

16. OTHER INFORMATION

Abbreviations:

DNEL	Derived-No Effect Level
DMEL	Derived Minimal Effect level
EC50	Median effective concentration
Eye Irrit. 2	Eye Irritation Category 2
LC50	Median lethal concentration
LD50	Median lethal dose
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
Skin Irrit. 2	Skin Irritation Category 2
vPvB	very Persistent, very Bioaccumulative

Full H-phrases if not given elsewhere:

H272 may intensify fire; oxidiser.
H319 Causes serious eye irritation.

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.

PRINTED: 09 JUNE 2022

SAFETY DATA SHEET

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

1. Product Identifier:

Plantsmith Protecting Bug Control Spray

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

Supplied for use as a physical mode of action pesticide & mildewcide.

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

3.1 Product Code: *tba*

3.2 Mixtures

No hazardous components requiring listing.

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

Occupational exposure limits None established.

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

Appearance; Clear liquid

Odour; Slight aroma

Odour threshold; Information not specified

pH; 7 – 8 (aqueous suspension)

Melting point/freezing; Information not specified

Initial boiling point; ~100°C

Flash point; Not applicable

Evaporation rate; Not applicable

Flammability (solid, gas); Not applicable

Upper /lower flammability or explosive limits; Information not specified

Vapour Pressure; Information not specified

Vapour density; Information not specified

Relative density; Information not specified

Solubility (ies); Miscible in all proportions.

Partition coefficient: n-octanol/water; Information not specified

Auto ignition temperature: Information not specified

Decomposition temperature: Information not specified

Viscosity: Information not specified

Explosive properties: Product not classified as explosive

Oxidising properties: Product not classified as oxidising

9.2 Other Information

No other relevant information available

10. STABILITY AND REACTIVITY

10.1 Reactivity

Stable under recommended transport or storage conditions

10.2 Chemical Stability

Stable under normal conditions

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 oxidising agents. Strong acids.

10.6 Hazardous decomposition products

In combustion emits toxic fumes.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:	Not expected to be toxic.
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.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Mixture not classified as harmful to aquatic life

12.2 Persistence and degradability

Biodegradable.

12.3 Bioaccumulative potential

Not applicable

12.4 Mobility in soil

Not applicable

12.5 Results of PBT and vPvB

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

12.6 Other adverse effects

None.

13. DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Disposal operations: Deposit into or on to land (e.g. landfill, etc)

Recovery operations: Not applicable.

Disposal of packaging: Clean with water. Dispose of as normal industrial waste.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

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.

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14.6 Special precautions for user: Not specified

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15.2 Chemical Safety Assessment

CSA not undertaken for this substance.

16. OTHER INFORMATION

SDS information:

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