



Bonsai Focus

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Revision date: 16/10/2020 Supersedes: 24/01/2020 Version: 3.1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Product name : Bonsai Focus
Type of product : Fertilisers
Product group : Trade product

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Intended for general public
Main use category : Consumer use
Use of the substance/mixture : Fertilisers

1.2.2. Uses advised against

Restrictions on use : Not applicable

1.3. Details of the supplier of the safety data sheet

Manufacturer

Growth Technology Limited
Great Western Way
TA2 6BX Taunton - UK
T +44 (0)1823 325291
info@growthtechnology.com - www.growthtechnology.com

1.4. Emergency telephone number

Emergency number : +44 (0)1823 325291
office hours only:
Monday - Friday
0800 - 1700 (GMT/UTC)

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0344 892 0111	
United Kingdom	National Poisons Information Service (Cardiff Centre) Gwenwyn Ward, Llandough Hospital	Penarth CF64 2XX Cardiff	0344 892 0111	
United Kingdom	National Poisons Information Service Edinburgh Royal Infirmary of Edinburgh	Little France Crescent EH16 4SA Edinburgh	0344 892 0111	
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	+44 20 7188 7188	
United Kingdom	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre, Wolfson Unit	Claremont Place Newcastle-upon-Tyne NE1 4LP Newcastle	0344 892 0111	
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA Belfast	0344 892 0111	

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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Serious eye damage/eye irritation, Category 2 H319

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) :

Warning

Hazard statements (CLP) :

H319 - Causes serious eye irritation.

Precautionary statements (CLP) :

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

P102 - Keep out of reach of children.

P264 - Wash hands thoroughly after handling.

P280 - Wear eye 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.

2.3. Other hazards

Other hazards not contributing to the classification : None under normal conditions.

Bioaccumulation is not expected to occur

SECTION 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]
Calcium nitrate	(CAS-No.) 10124-37-5 (EC-No.) 233-332-1 (REACH-no) 01-2119495093-35	≥ 1 - <3	Ox. Sol. 3, H272 Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318
Sodium molybdate	(CAS-No.) 10102-40-6 (EC-No.) 231-551-7 (REACH-no) 01-2119489495-21	<0.005	Not classified

Full text of H-statements: see section 16

SECTION 4: 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 personnel should wear appropriate protective equipment during any rescue.

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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	: Take off immediately all contaminated clothing and wash it before reuse. 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. Seek immediate medical advice.
First-aid measures after ingestion	: Rinse mouth. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects	: Causes serious eye irritation.
Symptoms/effects after inhalation	: Inhalation of liquid or overexposure to vapours may cause coughing.
Symptoms/effects after skin contact	: None under normal conditions.
Symptoms/effects after eye contact	: Causes serious eye 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. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Use extinguishing agent suitable for surrounding fire. Dry chemical, CO ₂ , or water spray or regular foam.
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5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Combustion products may include the following: carbon oxides (CO, CO ₂) (carbon monoxide, carbon dioxide) nitrogen oxides (NO, NO ₂ etc.).
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5.3. Advice for firefighters

Firefighting instructions	: Do not allow run-off from fire-fighting to enter drains or water courses.
Protection during firefighting	: Self-contained breathing apparatus. Complete protective clothing.

SECTION 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.
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6.1.1. For non-emergency personnel

Protective equipment	: Concerning personal protective equipment to use, see section 8.
Emergency procedures	: Avoid contact with eyes. Evacuate area. Ventilate area.

6.1.2. For emergency responders

Protective equipment	: Concerning personal protective equipment to use, see section 8.
Emergency procedures	: Avoid contact with eyes. Evacuate unnecessary personnel. Ventilate area.

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.
Other information	: Dispose of materials or solid residues at an authorized site.

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6.4. Reference to other sections

SECTION 8. SECTION 11. SECTION 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	: Not expected to present a significant hazard under anticipated conditions of normal use.
Precautions for safe handling	: Avoid contact with eyes. Wear eye protection.
Hygiene measures	: Take off immediately all contaminated clothing and wash it before reuse. Always wash hands after handling the 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.

SECTION 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/m ³)	5 mg/m ³
WEL STEL (mg/m ³)	10 mg/m ³
Regulatory reference	EH40/2005 (Fourth Edition, 2020). HSE.

Calcium nitrate (10124-37-5)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	13.9 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	24.5 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	8.33 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	6.3 mg/m ³
Long-term - systemic effects, dermal	8.33 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.45 mg/l
PNEC aqua (marine water)	0.045 mg/l
PNEC aqua (intermittent, freshwater)	4.5 mg/l
PNEC (STP)	
PNEC sewage treatment plant	18 mg/l

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Sodium molybdate (10102-40-6)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, inhalation	23.97 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	7.3 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	7.15 mg/m ³
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:

Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.

Personal protective equipment:

Wear recommended personal protective equipment. Always wash hands after handling the product.

Materials for protective clothing:

Not required for normal conditions of use

Hand protection:

Not required for normal conditions of use

Eye protection:

Safety glasses with side shields. EN 166

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.

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SECTION 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. Decomposition temperature Calcium nitrate: ~500°C.
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	: 1.084
Density	: 1084 kg/m ³
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 additional information available

SECTION 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.

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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.).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Calcium nitrate (10124-37-5)

LD50 oral rat	300 – 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method), Guideline: EU Method B.1 tris (Acute Oral Toxicity - Acute Toxic Class Method), Guideline: EPA OPPTS 870.1100 (Acute Oral Toxicity), Guideline: other:Japanese Ministry of Agriculture, Forestry and Fisheries (JMAFF), 12 Nousan, Notification No 8147, November 2000, including the most recent partial revisions
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)

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: 3 – 4
Serious eye damage/irritation : Causes serious eye irritation.
pH: 3 – 4
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

Calcium nitrate (10124-37-5)

NOAEL (oral, rat, 90 days)	≥ 1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents), Guideline: EU Method B.7 (Repeated Dose (28 Days) Toxicity (Oral))
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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)
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Aspiration hazard : Not classified

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SECTION 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

Calcium nitrate (10124-37-5)	
LC50 fish 1	1378 mg/l Test organisms (species): Poecilia reticulata
EC50 Daphnia 1	490 mg/l Test organisms (species): Daphnia magna
ErC50 (algae)	> 1700 mg/l EC50/10d

Sodium molybdate	
NOEC chronic crustacea	≈ 79 mg/l 30d

12.2. Persistence and degradability

Bonsai Focus	
Persistence and degradability	Expected to be biodegradable.

Calcium nitrate (10124-37-5)	
Persistence and degradability	Readily biodegradable.

Sodium molybdate	
Persistence and degradability	Readily biodegradable.

12.3. Bioaccumulative potential

Bonsai Focus	
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.

Calcium nitrate (10124-37-5)	
Bioaccumulative potential	Low bioaccumulation potential.

Sodium molybdate	
Bioaccumulative potential	Low bioaccumulation potential.

12.4. Mobility in soil

Bonsai Focus	
Ecology - soil	Expected to be highly mobile in soil.

Calcium nitrate (10124-37-5)	
Ecology - soil	Expected to be highly mobile in soil.

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Sodium molybdate

Ecology - soil	No data available.
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12.5. Results of PBT and vPvB assessment

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Bioaccumulation is not expected to occur

Component

Calcium nitrate (10124-37-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
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12.6. Other adverse effects

No additional information available

SECTION 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.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

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

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Rail transport

Not applicable

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

Not applicable

SECTION 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

Calcium nitrate

SECTION 16: Other information

Indication of changes:

Section	Changed item	Change	Comments
1.3	Website	Added	
1.4	Poison centres	Added	
3	Specific concentration limits (CLP)	Added	
4	First-aid measures general	Update	
5.1	Suitable extinguishing media	Update	
5.2	Hazardous decomposition products	Update	
6	Containment as appropriate	Update	
7	Storage conditions	Update	
8.2	Appropriate personal protective equipment	Update	
9	Additional information		
10	Hazardous decomposition products	Added	
12.	Component data	Added	
13	Additional information		
15	Component data	Added	

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Abbreviations and acronyms:	
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

Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Ox. Sol. 3	Oxidising Solids, Category 3
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Eye Irrit. 2	H319	Calculation method

SDS EU (REACH Annex II)

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.