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

1.1. Product identifier

Product name: BIOX-M

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

Relevant identified uses: Anti-sprouting treatment of potatoes
 Uses advised against: Only identified use is allowed.

1.3. Details of the supplier of the Safety Data Sheet

Manufacturer/Supplier: XEDA INTERNATIONAL
 Zone artisanale de la Crau
 13670 St Andiol/ France
 Tél : + 33 4 90 90 23 23
 Fax : + 33 4 90 90 23 20
 Department for SDS : fds@xeda.com

1.4. Emergency telephone number

Call NHS Direct in England or Wales 0845 46 47 or NHS 24 in Scotland 08454 24 24 24 (UK only).

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture


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

Hazard Class	Hazard pictogram	Class and hazard category	Hazard mention
skin sensitization	SGH07	Skin Sens. 1	H317
Danger to the aquatic environment	SGH09	Aquatic acute 1	H400
Aspiration toxicity	SGH08	Asp. Tox. 1	H304

2.2. Label elements

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

Hazard pictograms:	
Signal word	Danger
Hazard statement	H317 : May cause an allergic skin reaction H304 : May be fatal if swallowed and enters airways H400 : Very toxic to aquatic life

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Precautionary Statements	Prevention : P261 Avoid breathing fume/gas/vapours/spray. P273 Avoid release to the environment. P280 Wear protective gloves/protective clothing/eye protection/ face protection. Response : IF SWALLOWED: Immediately call a POISON Center or doctor/physician. P331 Do NOT induce vomiting. If skin irritation or rash occurs: Get medical advice/attention.
Supplemental statement	EUH401 : To avoid risks to human health and the environment, comply with the instructions for use

2.3. Other hazards

No additional information available.

SECTION 3: Composition/information on ingredients

3.1. Substances

Non applicable.

3.2. Mixtures

Name	CAS number	EC number	% [weight]	Classification according to Directive 67/548/EC	Classification according to Regulation (EC) No 1272/2008 [CLP]
Mentha spicata, (spearmint oil extract)	8008-79-5	283-656-2	100%	<i>R43</i> <i>Harmful, Xn, R65</i> <i>Dangerous for the environment, N, R51/53</i>	<i>Skin Sens. 1, H317</i> <i>Asp. Tox. 1, H304</i> <i>Aquatic Acute 1, H400</i>

For full text of H-statements and R-phrases see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General notes: no special precautions required

Following inhalation: Remove to fresh air. If symptoms persist, seek medical attention.


Following skin contact: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice / attention. Take off contaminated clothing and wash before reuse.

Following eye contact: Rinse cautiously with water for several minutes.

Following ingestion: Call a POISON CENTER or doctor/physician if you feel unwell. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Self-protection of the first aider: no special precautions required.

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

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Following skin contact: may cause skin irritation or rash.

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

No additional information.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: use a water spray, dry powder or carbon dioxide extinguisher.
Unsuitable extinguishing media: direct water jet.

5.2. Special hazards arising from the substance or mixture

In case of fire hazardous decomposition products may be produced: carbon monoxide or carbon dioxide.

5.3. Advice for firefighters

Wear special protective equipment for firefighters.
Avoid release to the environment, collect contaminated extinguishing water, not to be discharged into drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- 6.1.1. For non-emergency personnel: Wear protective gloves/protective clothing/eye protection/ face protection.
- 6.1.2. For emergency responders: No additional information.

6.2. Environmental precautions

Avoid release to the environment. Do not discharge into the drains / surface waters / groundwater.

6.3. Methods and material for containment and cleaning up

Contain the spill, seal drains.
Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal. Place drums for disposal of waste recovered in accordance with applicable regulations.


6.4. Reference to other sections

See Section 8 for information on personal protection equipment.
See Section 13 for information on waste treatment.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Use during the application a mask with filters for organic vapors type "P series"
Wear protective gloves/protective clothing/eye protection/ face protection during the mixing, loading and application of the mixture.

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Wait 48 hours after treatment before entering treated area, if prior entry is required wear a filter mask for organic vapors series "P", protective clothing, face shield and gloves. .

Do not clean application equipment near surface water. Avoid contamination via drainage from farmyards or roads

General advice regarding hygiene: Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke in work areas. Wash hands after each use. Remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for safe storage, including any incompatibilities

Store in the original package.

The storage must be:

- for the exclusive storage of plant protection products and disinfectants,
- ventilated
- locked
- having no alternative use,
- away from food, children and pets.

7.3. Specific end use(s)

Plant protection products: germination inhibitor of potato.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available.

8.2. Exposure controls



During application of the mixture:

Respiratory protection: use during the application a mask with filters for organic vapors type "P series"

Eye/face protection: use a face shield.

Skin protection: wear protective clothing, wash contaminated clothing before reuse.

Hand protection: use approved protective gloves according to EN 374 (Protective gloves against chemicals). Follow the instructions and information from the manufacturer of the protective gloves on their use, storage, care and replacement of protective gloves.

Wait 48 hours after treatment before entering treated area, if prior entry is required wear a filter mask for organic vapors series "P", protective clothing, face shield and gloves.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	: yellowish liquid, transparent
Odour:	: spearmint, pleasant, fresh and soft



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Odour threshold	: no data available
pH :	: not applicable, product is insoluble in water
Melting point / freezing point	: no data available
Initial boiling point and boiling range	: 230-231°C (100% L-carvone)
Flash point	: 92°C (method EEC A9)
Evaporation rate	: no data available
Flammability	: not applicable because the product is neither a solid nor a gas, or a substance that liberates highly flammable gas
Upper/lower flammability or explosive limits	: no data available
Vapour pressure	: 31.13 mN/m at 25 °C (method EEC A5)
Vapour density	: no data available
Relative density	: $D_4^{20} = 0.949+0.000$ (method EEC A3)
Solubility	: insoluble in water and soluble in organic solvents
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: $301 \pm 5^\circ\text{C}$ (method EC A15)
Decomposition temperature	: no data available
Viscosity	: 2.95 mm ² /s (+0.00%) (method OECD 114)
Explosive properties	: not applicable
Oxidising properties	: not applicable

9.2. Other information

No data additional available.

SECTION 10: Stability and Reactivity

10.1. Reactivity

No data additional available.

10.2. Chemical stability

No hazardous reactions under normal recommended conditions.

10.3. Possibility of hazardous reactions

No hazardous reactions known.

10.4. Conditions to avoid

Storage conditions: see section 7.2.

The product must be used as prescribed.

10.5. Incompatible materials

No data additional available.

10.6. Hazardous decomposition products

No decomposition if used for intended uses.

In case of fire hazardous decomposition products may produced: carbon monoxide or carbon dioxide.



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SECTION 11: Toxicological information

11.1. Information on toxicological effects

		Method	Species	Results	Classification
Acute toxicity	Oral	OECD No. 423	rat	LD ₅₀ > 2000 mg/kg no mortality	Not
	Dermal	OECD No. 402	rat	LD ₅₀ > 2000 mg/kg no mortality	Not
	Inhalation	OECD No. 403	rat	LD ₅₀ > 5.43 mg/L (4h) no mortality	Not
Skin corrosion/irritation		OECD No. 404	rabbit	No irritant	Not
Serious eye damage/irritation		OECD No. 405	rabbit	No irritant	Not
skin sensitization		OECD No. 429	mouse	sensitizer	R43

Germ cell mutagenicity	: not classified
Carcinogenicity	: not classified
Reproductive toxicity	: not classified
STOT-single exposure	: not classified
STOT-repeated exposure	: not classified
Aspiration hazard:	: Harmful, may cause lung damage if swallowed

SECTION 12: Ecological information

12.1. Toxicity

Lemna sp., Growth inhibition test BIOX-M / (OECD 221, March 2006) : EC₅₀ = 25.3 mg/L

Fresh water algae, growth inhibition test with Biox-M, OECD 201 : 72h ErC₅₀ = 42.8 mg/L, 72h EyC₅₀ = 26.3 mg/L

Ready biodegradability Biox-M is easily biodegradable (83 % removal within 28 days) (Closed-bottle test (CEE C4.e))

12.2. Persistence and degradability

Not relevant considering the application of the product is in a closed place, no data available.

12.3. Bioaccumulative potential

Not relevant considering the application of the product is in a closed place, no data available.

12.4. Mobility in soil


Not relevant considering the application of the product is in a closed place, no data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

No additional data available.

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SECTION 13: Disposal considerations

13.1 Waste treatment methods

Dispose of this material and its container at hazardous waste collection point.

SECTION 14: Transport Information

In accordance with ADR/RID/ADNR/IMDG/ICAO/IATA

14.1 UN number

UN3082

14.2 UN proper shipping name

Official designation for transport:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S. (contains spearmint oil)

Description transport document:

UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S. (contains spearmint oil), 9, GEIII, (E)

14.3 Transport hazard class(es)

Class: 9

Hazard label: 9



14.4 Packing group

III

14.5 Environmental hazards

DANGEROUS FOR THE ENVIRONMENT
MARINE POLLUTANT



14.6 Special precautions for user

14.6.1. Transport by road


Hazard identification number: 90

Orange sign:



Transport category:

3

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Tunnel restriction code: (E)
 Limited quantities: 5Lt

14.6.2. Transport by sea
 Marine pollutant

14.6.3. Air transport
 Marine pollutant

14.7. Transport in bulk according to Annex II of MARPOL73/78 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: No REACH Annex XVII restrictions

15.1.2. National regulation:

Plant protection product, Usage: potato growth inhibition and removal of potato sprouts
 United Kingdom: MAPP 16021

15.2. Chemical Safety Assessment

No additional data available.

SECTION 16: Other information


Information contained in this data sheet and marked by a line to the left of the page corresponds to the changes that have been made compared to the previous edition.

List of R phrases or H relevant:

Skin Sens. 1	Sensitizers, category 1
Aquatic acute 1	Hazardous to the aquatic environment, acute category 1
Asp. Tox. 1	Aspiration toxicity category 1
H317	May cause an allergic skin reaction
H304	May be fatal if swallowed and enters airways
H400	Very toxic to aquatic life

LIST OF ACRONYMS:

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
CLP	Classification labelling packaging
CAS	Chemical Abstracts Service number
EC number	EINECS and ELINCS Number (see also EINECS and ELINCS) EINECS European Inventory of Existing Commercial Substances ELINCS European List of notified Chemical Substances

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IATA	International Air Transport Association
OACI	Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG	International Maritime Dangerous Goods
LC50	Lethal Concentration to 50 % of a test population
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail

Key literature references and sources of data:

This fact sheet was written based on the guide for developing safety data sheets Version 1.1 December 2011 of ECHA and the guide on labeling and packaging in accordance with Regulation (EC) No 1272 / 2008 by ECHA

FDS UE (Annexe II REACH)

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