MATERIAL SAFETY DATA SHEET

TB-MBLA EC Extraction Control

This Safety Data Sheet contains information concerning the potential risks to those involved in handling, transporting and working with the material, as well as describing potential risks to the consumer and the environment. This information must be made available to those who may come into contact with the material or are responsible for the use of the material. This Safety Data Sheet is prepared in accordance with formatting described in the REACH Regulation (EC) No 1907/2006, and described in CLP Regulation (EC) No 1272/2008 and associated UK Regulations.

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

1.1 Product Identifier
EC Extraction Control.

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against
Laboratory chemical, medical diagnostics.

1.3 Details of the Supplier of the Safety Data Sheet
Address: LifeArc, Nine Bioquarter, 9 Little France Road, Edinburgh, EH16 4UX, UK.
E mail: TB-MBLA@lifearc.org

1.4 Emergency Telephone Number
Telephone 09.00 – 17.00 Monday-Friday – +44 (0)20 7391 2700

SECTION 2: Hazards Identification

2.1 Classification of the substance or mixture
Classification in accordance with the EU Classification Labelling and Packaging Regulation EC (no) 1272/2008, UK CLP and United Nations GHS.
Not classified hazardous.

2.2 Label elements
Labelling in accordance with the EU Classification Labelling and Packaging Regulation EC (no) 1272/2008, UK CLP and United Nations GHS.
No specific labelling requirements. Product is considered non-hazardous.

2.3 Other hazards
No hazards have been identified if the product is handled and used as recommended.
SECTION 3: Composition

3.1 Substances
Not applicable - product is a mixture.

3.2 Mixtures
Total RNA extract from Mycobacterium sp. in water.

<table>
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<th>Name</th>
<th>CAS or EC No,</th>
<th>Concentration</th>
<th>Classification</th>
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<tr>
<td>No hazardous constituents above thresholds of concern</td>
<td>N/A</td>
<td>N/A</td>
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</tbody>
</table>

SECTION 4: First Aid Measures

4.1 Description of first aid measures
- **EYE CONTACT:** Rinse thoroughly with water for several minutes and obtain medical attention if signs of discomfort.
- **INHALATION:** No known hazard from inhalation. If discomfort following exposure, seek medical advice.
- **SKIN CONTACT:** If unintentional skin contact, wash off with water.
- **INGESTION:** If swallowed, rinse mouth with water. Obtain medical attention if signs of discomfort or if feeling unwell.

4.2 Most important symptoms and effects, both acute and delayed
- **EYE CONTACT:** If liquid gets into the eye it may cause redness, stinging, watering of the eye.
- **INHALATION:** Symptoms unlikely from normal use.
- **SKIN CONTACT:** No known adverse effects.
- **INGESTION:** Ingestion of the liquid is not expected to cause adverse effects.

4.3 Indication of any immediate medical attention and special treatments needed
Symptomatic treatment as required

SECTION 5: Firefighting Measures

5.1 Extinguishing media
Non-flammable water-based product. Will not support combustion. Use extinguishing media suitable for surrounding area.

5.2 Special hazards arising from the substance or mixture
No special hazards.

5.3 Advice for fire fighters
No special advice.
SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures
No specific risk from spillage.
In case of large spill (> 10 litres) exclude unnecessary personnel. Open doors and windows to ensure good ventilation.

6.2 Environmental precautions
Prevent entry of large quantities into sewers and watercourses.

6.3 Methods and materials for containment and clearing up
Absorb onto paper or mineral spill containment products. Collect and place in a sealable container for disposal as low-hazard chemical waste. Clean area of spill to prevent slip hazard.

6.4 References to other sections
See section 8 and 13 for further advice.

SECTION 7: Handling and Storage

7.1 Precautions for safe handling
Avoid contact with eyes and unnecessary prolonged contact with skin.

7.2 Conditions for safe storage, including any incompatibilities
Store in its original labelled container in a cool, well-ventilated area, away from heat, sparks and other sources of ignition. Keep out of reach of children and animals.

7.3 Specific end uses(s)
No special precautions.

SECTION 8. Exposure Controls/Personal Protection

8.1 Control parameters

Exposure limits
No specific exposure limits apply.

8.2 Exposure controls

Engineering controls
Normal room ventilation is expected to be adequate.

Respiratory protection
Not required.

Hand Protection
For industrial or professional use, or if prolonged contact is expected, then suitable gloves may be required. Butyl rubber or nitrile rubber are considered suitable, but glove manufacturer recommendations should always be checked.

Eye protection
If being handled in bulk, safety glasses or goggles may be appropriate.

Skin protection
For industrial or professional use, or if prolonged contact is expected, then suitable protective clothing should be worn. Remove protective clothing when contaminated and wash before reuse.

Environmental Exposure Controls
Not normally required.
SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

a) Physical state
   Mobile liquid
b) Colour
   Colourless
c) Odour
   No specific odour
d) Melting point/freezing point
   Freezing < 0 °C
e) Boiling point or initial boiling point and boiling range
   Boiling > 100 °C
f) Flammability
   Will not support combustion
g) Lower and upper explosion limit
   Not applicable; not considered potentially explosive
h) Flash point
   Flashpoint > 100 °C. Will not support combustion
i) Auto-ignition temperature
   Will not combust
j) Decomposition temperature
   Stable to 100 °C
k) pH
   Neutral; pH 7-8
l) Kinematic viscosity
   As for water
m) Solubility
   Miscible in water
n) Partition coefficient n-octanol/water (log value)
   None of the components are considered accumulative
o) Vapour pressure
   As for water
p) Density and/or relative density
   Relative density similar to water
q) Relative vapour density
   Not applicable
r) Particle characteristics
   Liquid

9.2 Other information
   No volatile organic compounds.

9.2.1 Information with regard to physical hazard classes
   No physical hazard classification.

9.2.2 Other safety characteristics
   No other safety characteristics.
SECTION 10: Stability and Reactivity

10.1 Reactivity
Not considered to be reactive.

10.2 Chemical stability
Stable under normal conditions.

10.3 Possibility of hazardous reactions
None expected.

10.4 Conditions to avoid
No specific conditions.

10.5 Incompatible materials
Avoid contact with strong oxidisers.

10.6 Hazardous decomposition products
None known.

SECTION 11: Toxicological Information

11.1 Information on toxicological effects
This product has not been tested. Judgements on the expected toxicity of this product have been made based upon consideration of its major components. A cosmetic Product Safety Report has been prepared.

(a) acute toxicity Based on components, does not present an acute toxicity hazard
(b) skin corrosion/irritation Not irritating to skin
(c) serious eye damage/irritation If product gets into the eye it may cause mild discomfort
(d) respiratory/skin sensitisation No ingredient known to be potentially sensitising
(e) germ cell mutagenicity No ingredient known to be potentially mutagenic
(f) carcinogenicity No ingredient known to be potentially carcinogenic
(g) reproductive toxicity No ingredient known to be potentially toxic for reproduction
(h) STOT-single exposure No ingredient known to have an adverse effect
(i) STOT-repeated exposure No ingredient known to have an adverse effect
(j) aspiration hazard Not an aspiration hazard
SECTION 12: Ecological Information

12.1 Toxicity
Based on components, not hazardous to the environment.

12.2 Persistence and degradability
Organic components are considered rapidly biodegradable. No organic components are considered persistent.

12.3 Bioaccumulative potential
Organic components are readily metabolised and not expected to bioaccumulate.

12.4 Mobility in soil
Organic components will quickly degrade.

12.5 Results of PBT and vPvB assessment
Organic components are not considered to be PBT or vPvB.

12.6 Other adverse effects
None known.

SECTION 13: Disposal Considerations

13.1 Waste treatment methods
Waste should be disposed of in accordance with local regulations.
Unused bulk product may be disposed of as low-hazard waste.

SECTION 14: Transport Information

Not classified for transport hazard.

SECTION 15: Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
All components are listed as existing substances in Europe.
No components are listed under US OSHA as a potential carcinogen.
California Prop 65: None of the ingredients need declaration as carcinogen, mutagen or toxic for reproduction.
Potential allergens are listed in Section 3 under Cleaning Product right to know Act 2017.

15.2 Chemical Safety Assessment
Substances registered under EU REACH have been assessed for laboratory use.
SECTION 16: Other Information

Revision information:
This is the first SDS prepared in accordance with the REACH Regulation 1907/2006 and corresponding UK legislation.

List of Abbreviations used in this SDS:
CAS Chemical Abstracts Service
CLP Classification, Labelling and Packaging Regulation (EC) no 1272/2008
EC European Community/Commission
OSHA Occupational Safety and Health Administration (US)
PBT Persistent, Bioaccumulative and Toxic
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) no 1907/2006
SVHC Substance of Very High Concern
vPvB very Persistent, very Bioaccumulative

References:
EU CLP Regulation 1272/2008

Method used for classification of mixtures:
Ingredient based approaches.

H Statements used in Section 3
None

Training requirements for workers
Important to review instructions for use and specific training for use of diagnostic kits.

Revision History

<table>
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<tr>
<th>Version</th>
<th>Section</th>
<th>Details of Changes</th>
<th>Change Control Number</th>
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<td>All</td>
<td>Initial issue</td>
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