

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name Symbio Liquid Aeration
REACH registration No. Not applicable
Product number: **UFI: C5AT-GONA-T005-4AS7**

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

Identified use(s) Odour controller and hydrocarbon degradation aid in waste water treatment systems, soil drainage improver, plant stimulator, water oxygenator
Uses advised against Mixing with combustible materials

1.3. Details of the supplier of the safety data sheet

Company name:

Origin Amenity Solutions Ltd
1-3 Freeman Court,
Jarman Way,
Orchard Road,
Royston,
Hertfordshire,
SG8 5HW
Tel: 0800 138 7222
Email: sales.symbio@originamenity.com

1.4. Emergency telephone number

Emergency phone No. 0800 138 7222 (09.00 – 17.00 GMT Monday – Friday)
National emergency telephone number 111

2. Hazards identification

2.1. Classification of the substance or mixture

Classification according to Directive EC 1272/2008 Classification, Labelling and Packaging.

Physical hazards

Not Classified

Health hazards

Serious eye damage (Category 1) – H318

Environmental hazards

Not Classified

2.2. Label elements

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

CLP Hazard Pictograms:



Signal word(s): Danger
Hazard Statements: H318: Causes serious eye damage

**SAFETY DATA SHEET
SYMBIO LIQUID AERATION**

SDS COMPLETED 8TH JUNE 2015
UPDATED: 20TH JANUARY 2022

VERSION 01
REVISION NUMBER: 3

Precautionary Statements: P280 Wear protective gloves and 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
P310 Immediately call a POISON CENTRE or doctor/ physician
UFI: C5AT-G0NA-T005-4AS7

2.3. Other hazards

PBT Not tested for PBT
vPvB Not tested for vPvB

3. Composition/information on ingredients

3.2. Mixtures

EC Classification No 1272/2008

Hazardous ingredient(s)	%w/w	CAS no	EC no	REACH Registration number	H statements
Ammonium nitrate	41.8%	6484-52-2	229-347-8	01-2119490981-27	H272, H319 SCL ≥90%
Calcium nitrate hydrate	3 – <10%	13477-34-4	233-332-1	01-2119495093-35	H272, H302, H318

4. First aid measures

4.1. Description of first aid measures

4.1.1. First aid instructions.

If inhaled: Move person into fresh air, rest and seek medical advice
If on skin (or hair): Wash affected skin with plenty of soap and water. Remove contaminated clothing and wash before reuse
If in eyes: Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open. Remove contact lenses if possible. Seek medical advice
If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth and throat. Do not induce vomiting. Drink 1-2 glasses of water. Consult a physician
Other first aid advice: If vomiting occurs spontaneously, keep airways clear. Give more water when vomiting stops

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

If inhaled: Inhalation of mist or vapours may cause irritation of mucous membranes and upper respiratory tract. Symptoms may include irritation, coughing and shortness of breath

If on skin (or hair):	Irritation may occur to skin especially when already sore, dry or irritated. Where a significant exposure is left unwashed systematic effects from skin absorption can include dizziness, weakness, headache, nausea
If in eyes:	Corrosion of the eye tissues can occur together with tearing and considerable pain. If not washed burns, conjunctivitis, iritis or other eye injuries can occur
If swallowed:	Nausea and stomach pain may occur along with vomiting and diarrhoea is expected. Ingestion of large quantities can result in nitrite toxicity manifested as methaemoglobinaemia

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

Medical treatment:	Methaemoglobin concentrations are the best indicator of toxicity over plasma nitrate concentrations. Burns and irritation should be treated symptomatically. Treatment regimes should be dictated by a medical professional
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5. Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:	All extinguishing agents permitted
Unsuitable extinguishing media:	None known

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products:	Oxides of nitrogen, carbon, calcium and potassium
Other special hazards during fire:	Where heated to dryness material may be explosive in contact with flammable or organic substances

5.3. Advice for firefighters

Protective actions during firefighting:	Wear self-containing breathing apparatus
Special protective equipment for firefighters:	No special instructions
Other advice:	Do not allow product to evaporate to dryness

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Non-emergency personnel PPE	See section 8.2
Emergency responders PPE	See section 8.2
Controlling risks from accidental release:	Avoid contact with reducing agents, strong acids and bases, metal powders, combustible materials
Emergency procedures:	Evacuate personnel to safe areas.

6.2. Environmental precautions

Keep accidental releases away from:	Drains, water courses, soil and open ground. Discharge to ground, water courses or drains can cause eutrophication
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6.3. Methods and material for containment and cleaning up

Containing a spill:	Mop up and contain with absorbent chemical spill kits
Cleaning up a spill	Mop material. Dilute to prevent damage to oxidiser sensitive surfaces. Recycle where possible
Other information on spill handling:	Dilute with water. Capture with chemical absorbent kits. Recycle where possible

6.4. Reference to other sections

See section 8.2 for personal protective equipment. See section 13.1 for disposal considerations

7. Handling and storage

7.1. Precautions for safe handling

Safe handling recommendations:	Avoid creation of aerosols. Provide good ventilation at location of use
Handling incompatibles:	Do not use with reducing agents, strong acids or alkalis
Reducing environmental risk:	Do not discharge into drains or water courses
Occupational hygiene advice	Wash hands after using this product and before eating, drinking or smoking. Remove contaminated clothing and protective equipment before entering eating areas

7.2. Conditions for safe storage, including any incompatibilities

Safe storage: managing risks during storage:

Explosive atmospheres formed during storage:	Not applicable
Corrosive conditions during storage:	Not applicable
Flammability hazards during storage:	Not applicable
Incompatible substances or mixtures:	Incompatible with reducing agents
Evaporative conditions:	Not applicable
Potential ignition sources, including electrical equipment:	Not applicable

Safe storage: controlling effects of ambient conditions:

Weather conditions:	Do not store outside uncontained
Ambient pressure:	Not applicable
Temperature:	Do not allow product to exceed 30°C
Sunlight:	Keep out of direct sunlight
Humidity:	Not applicable
Vibration:	Not applicable

Safe storage: maintaining the integrity of the product:

Stabilisers:	Stabilisers are not used in this product
Antioxidants:	Antioxidants are not used in this product

Safe storage: other advice:

Ventilation requirements for storage:	No specific ventilation requirements
Specific designs for storage rooms or vessels:	No specific design criteria on storage areas apart from normal regulatory requirements for substances of this type
Quantity limits under storage conditions:	Not applicable
Suitable packaging for the substance:	Compatible with plastic and protected metal containers

7.3. Specific end use(s)

Uses: Odour controller and hydrocarbon degradation aid in waste water treatment systems, soil drainage improver, plant stimulator, water oxygenator

8. Exposure controls/personal protection

8.1. Control parameters

8.1.1 Occupational exposure limits:

Data not available

8.1.2 Biological Limit Values:

Not applicable

8.1.3 Current recommended monitoring procedures:

Not applicable

8.1.4 Air contaminants formed when using the product as intended:

Not applicable

8.1.5. PNECs and DNELs

Data not available

8.2. Exposure controls

8.2.1. Appropriate engineering controls:

Good ventilation

8.2.2. Personal Protection Equipment

Eye protection:	Use safety glasses tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU)
Face protection:	Not required
Hand protection:	Use nitrile, latex or rubber gloves, which satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it
Other skin protection	Do not wear open footwear
Respiratory protection	Not required
Thermal hazards	Not required

8.2.3. Environmental exposure controls

Do not release substance to drains or surface water

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:	Clear-hazy, blue liquid
Physical state:	Liquid
Colour:	Blue
Odour:	Slight ammoniacal surfactant
Odour threshold:	Data not available
pH:	6.5 – 7.5
Melting point:	Data not available
Freezing point:	Data not available
Initial boiling point:	100°C
Boiling range:	Data not available
Flash point:	Data not available
Flash point method:	Data not available
Evaporation rate:	Data not available
Flammability (if solid or gas):	Data not available
Upper and lower flammability or explosive limits:	Data not available
Vapour pressure:	Data not available
Vapour density:	Data not available

Relative density:	1.28 – 1.30 g/ml at 20°C
Solubility(ies)	Completely miscible in water
Partition coefficient: n-octanol/water	Data not available
Auto-ignition temperature	Data not available
Decomposition temperature	Data not available
Viscosity	<100 cPs at 20°
Explosive properties	Data not available
Oxidising properties	Data not available

9.2. Other information

Data not available

10. Stability and reactivity

10.1. Reactivity

May react with reducing agents. May react with concentrated acids and alkalis

10.2. Chemical stability

Product is stable under anticipated storage and handling conditions

10.3. Possibility of hazardous reactions

Can react with reducing agents, concentrated acids or alkalis, metallic powders. Reactions with alkaline materials may generate ammonia

10.4. Conditions to avoid

Excessive heat (to water boiling point), drying on combustible materials

10.5. Incompatible materials

Reducing agents

10.6. Hazardous decomposition products

When heated, toxic and corrosive vapours/gases may be formed including ammonia

11. Toxicological information

11.1. Information on toxicological effects

Extrapolated from constituents

Acute toxicity	Value derived from classification LD50 >2,000 mg/kg body weight
Skin corrosion/irritation	May be slightly irritating to skin
Serious eye damage/irritation	Classified as corrosive to the eyes
Respiratory or skin sensitisation	Data not available
Germ cell mutagenicity	Data not available
Carcinogenicity	Data not available
Reproductive toxicity	Data not available
STOT-repeated exposure;	Data not available

11.2. Other information

No other information

12. Ecological information

12.1. Toxicity

There is no test data available for this product, values are extrapolated from data for constituents

Species	Test	Value
Common carp (<i>Cyprinus carpio</i>)	LC50 48H	>100 mg/L
Water flea (<i>Daphnia magna</i>)	EC50 48H	>100 mg/L
Algae (Benthic diatoms)	EC50 10D	>1 g/L

12.2. Persistence and degradability

Inorganic content is non-biodegradable

12.3. Bioaccumulative potential

Data not available

12.4. Mobility in soil

Data not available

12.5. Results of PBT and vPvB assessment

Data not available

12.6. Other adverse effects

Environmental fate	Not applicable
Photochemical ozone creation potential	Not applicable
Ozone depletion potential	Not applicable
Endocrine disrupting potential	Not applicable
Global warming potential	Not applicable

13. Disposal considerations

13.1. Waste treatment methods

This material, if discarded as produced, is not classified as a hazardous waste

Waste treatment containers to be used for product include IBCs or HDPE drums, metal drums should only be used where lined with a protective coating

Recycle material where possible by filtration. If heavily soiled or disposal judged as necessary dispose to landfill in accordance with the Directive on waste 2008/98/EC

No specific waste treatment containers to be used for contaminated packaging. Waste treatment method for contaminated packaging should include a rinse with water. Dilute washings should be recycled where possible, possibly as a low-grade fertiliser by a farmer or competent individual

Physical/ chemical properties which may affect waste treatment include the generation of an oxidising material where concentrated. Do not mix with reducing agents or oxidizable materials

14. Transport information

14.1. UN number

Not applicable

14.2. UN proper shipping name

ADR/RID	Not dangerous goods	
IMDG	Not dangerous goods IATA	Not dangerous goods

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable

15. Regulatory information

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

REGULATION (EU) 2019/1148 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 June 2019 on the marketing and use of explosives precursors, amending Regulation (EC) No 1907/2006 and repealing Regulation (EU) No 98/2013

Substance	%w/w	CAS no	EC no	REACH Registration no.
Ammonium nitrate	41.8%	6484-52-2	229-347-8	01-2119490981-27

Ozone depleting substance (EC No 2037/2000):	Not applicable
Persistent organic pollutants (EC No 850/2004)	Not applicable
Export and import of dangerous chemicals (EC No 689/2008)	Not applicable
COMAH/ Seveso II categories or named substance	Not applicable
REACH Authorisations and/or Restrictions	Not applicable
Any other relevant Safety, health and environmental regulations:	Not applicable

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for this product

16: Other information

a) Revision
Inclusion of UFI number
New Logo

b) Key (or legend)
LD50 Lethal Dosage affecting 50% of sample population
LC50 Lethal Concentration affecting 50% of sample population
EC50 Effective Concentration affecting 50% of sample population
NOEC No Observed Effect Concentration c)

c) Details of relevant hazard information
H272 May intensify fire; oxidiser
H302 Harmful if swallowed
H318 Causes serious eye damage
H319 Causes serious eye irritation
P280 Wear protective gloves and eye protection

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P310 Immediately call a POISON CENTRE or doctor/ physician

d) Appropriate training for workers
Training for spillage handling and chemical handling is recommended

Literature references

Data gathered for raw materials from European Chemicals Agency:

<http://echa.europa.eu/web/guest/information-on-chemicals/registered-substances>

Last accessed (10/10/2018)

Some physical properties reported from direct laboratory testing performed at Grotech Production Ltd

Some properties gathered from supplier SDS of constituent components

Disclaimer

The information in this SDS was obtained from sources which we believe to be reliable. Origin Amenity Solutions provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate handling of the product by properly trained and qualified personnel. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

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