

Printing date 22.06.2019 Revision: 22.06.2019

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

- · 1.1 Product identifier
- · Trade name: BioMass Sugar
- · Registration number Mixture
- · 1.2 Relevant identified uses of the substance or mixture and uses advised against
- · Sector of Use SU1 Agriculture, forestry, fishery
- · Product category PC12 Fertilisers
- · Application of the substance / the mixture Nutrient source in specialty crops
- · Uses advised against

Processes involving extreme heat use advised against.

Any use involving aerosol formation or vapour or dust release in excess of the assigned workplace exposure limits where workers are exposed without suitable respiratory protective equipment (RPE).

Any use carrying a risk of direct contact with eyes/skin where workers are exposed without adequate personal protective equipment (PPE).

Processes where workers who may be pregnant or breastfeeding could potentially come into direct contact with the undiluted product.

Processes involving the use of incompatible substances - refer to section 10.

Not for end use in this form or concentration.

The product is stictly intended for industrial or professional use only.

- · 1.3 Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Maxwell Amenity Ltd

Allscott Park

Allscott

Telford

Shropshire

TF6 5DY

Tel: +44 (0)1952 897910

- · Further information obtainable from: Product safety department.
- **1.4 Emergency telephone number:** Tel: +44 (0)1952 897910 (not 24 hours)

# **SECTION 2: Hazards identification**

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008



GHS08 health hazard

Carc. 2 H351 Suspected of causing cancer.



Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H332 Harmful if inhaled.

Eye Irrit. 2 H319 Causes serious eye irritation.

· Additional information:

The hazard classification shown is for the undiluted product as supplied. When diluted with water as recommended the resulting mixture is not hazardous for supply or for the environment.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

- · Hazard pictograms GHS07, GHS08
- · Signal word Warning

(Contd. on page 2)

Printing date 22.06.2019 Revision: 22.06.2019

Trade name: BioMass Sugar

(Contd. of page 1)

#### · Hazard-determining components of labelling:

furfural

#### · Hazard statements

H302+H332 Harmful if swallowed or if inhaled.

H319 Causes serious eye irritation.H351 Suspected of causing cancer.

#### · Precautionary statements

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe mist/vapours/spray.

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- PBT: Not applicable.vPvB: Not applicable.

# **SECTION 3: Composition/information on ingredients**

- · 3.2 Chemical characterisation: Mixtures
- · Description: Mixture of Sugarcane extracts and Furfural

· Dangerous components:		Dangerous	components:
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B F		
CAS: 98-01-1	furfural	>21=<23%
	Flam. Liq. 3, H226; Acute Tox. 3, H301; Acute Tox. 2, H330; Carc. 2, H351; Acute Tox. 4, H312; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335; Aquatic Chronic 3, H412	

· Additional information: For the wording of the listed hazard phrases refer to section 16.

## **SECTION 4: First aid measures**

- · 4.1 Description of first aid measures
- · General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· After inhalation:

DO NOT DELAY!

Supply fresh air or oxygen; call for doctor.

Seek immediate medical advice.

· After skin contact:

DO NOT DELAY!

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

· After eye contact:

DO NOT DELAY!

Check for and remove any contact lenses.

Rinse opened eye for several minutes under running water. Then consult a doctor.

· After swallowing:

DO NOT DELAY!

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

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

No further relevant information available.

· Information for doctor: Treat symptomatically and supportively.

(Contd. on page 3)

Printing date 22.06.2019 Revision: 22.06.2019

Trade name: BioMass Sugar

(Contd. of page 2)

# · 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

# **SECTION 5: Firefighting measures**

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· 5.2 Special hazards arising from the substance or mixture

During heating or in case of fire poisonous gases are produced.

- · 5.3 Advice for firefighters
- · Protective equipment:

Do not inhale explosion gases or combustion gases.

Wear self-contained respiratory protective device.

Wear fully protective suit.

#### **SECTION 6: Accidental release measures**

#### · 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Wear protective equipment. Keep unprotected persons away.

Mount respiratory protective device.

Particular danger of slipping on leaked/spilled product.

Use respiratory protective device against the effects of fumes/dust/aerosol.

· 6.2 Environmental precautions:

Do not allow product to reach sewage system or any water course in the undiluted form.

· 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Send for recovery or disposal in suitable receptacles.

Ensure adequate ventilation.

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

# **SECTION 7: Handling and storage**

#### · 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

Avoid direct contact (skin/eye contact, ingestion and/or inhalation of fume/mist/dust) with the product in the undiluted form.

Safety showers and eye wash facilities should be available at the work area.

Welding and other hot work operations in the work area must only be permitted under supervision.

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Do NOT take work clothes home.

The product must only be handled by authorised, trained and experienced professionals under strictly controlled conditions.

Contact lenses should not be worn while working with this product.

· Information about fire - and explosion protection: Keep respiratory protective device available.

(Contd. on page 4)

Revision: 22.06.2019 Printing date 22.06.2019

Trade name: BioMass Sugar

(Contd. of page 3)

#### · 7.2 Conditions for safe storage, including any incompatibilities

· Requirements to be met by storerooms and receptacles:

Temperatures in storage > 40 °C should be avoided. Also contact with direct sunlight, heat sources and air.

· Information about storage in one common storage facility:

Store away from oxidising agents.

Store away from foodstuffs.

· Further information about storage conditions:

Keep container tightly sealed.

Store in a bunded area.

Protect from frost.

Protect from heat and direct sunlight.

Store in cool, dry conditions in well sealed receptacles.

Protect from exposure to the light.

· 7.3 Specific end use(s) No further relevant information available.

## **SECTION 8: Exposure controls/personal protection**

- · Additional information about design of technical facilities: No further data; see item 7.
- · 8.1 Control parameters
- · Ingredients with limit values that require monitoring at the workplace:

#### 98-01-1 furfural

WEL | Short-term value: 20 mg/m³, 5 ppm Long-term value: 8 mg/m³, 2 ppm

Sk

· Additional information: The lists valid during the making were used as basis.

#### · 8.2 Exposure controls

· Personal protective equipment:

Select PPE appropriate for the operations taking place taking into account the product properties.

· General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

Do not eat or drink while working.

Pregnant women should strictly avoid inhalation or skin contact.

A safe system of work must be formulated and followed to ensure that workers who may be pregnant or breastfeeding do not come into direct contact with the product.

Storing food in the working area is prohibited.

Take note of assigned Workplace Exposure Limits.

Ensure that eyewash stations and safety showers are close to the workstation location.

A safe system of work must be formulated and followed to ensure safe working with this product. Relevant workers must receive suitable and sufficient training and supervision.

Depending on the degree of exposure, periodic medical examination is suggested.

#### **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

Respirator for organic gases and particulates adapted to the airborne concentration of the substance recomended.

(Contd. on page 5)

(Contd. of page 4)

# Safety data sheet according to 1907/2006/EC, Article 31

Printing date 22.06.2019 Revision: 22.06.2019

Trade name: BioMass Sugar

#### · Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

#### · Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

#### Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Tightly sealed goggles

#### · Body protection:

Lower:

Upper:

· Density at 20 °C:

· Relative density

· Vapour pressure at 20 °C:

Impervious protective clothing

Body protection must be chosen depending on product properties, activity and possible exposure.

## **SECTION 9: Physical and chemical properties**

9.1 Information on basic physical and chemical properties General Information			
Form:	Fluid		
Colour:	Brown		
· Odour:	Sugarcane molasses		
· Odour threshold:	Not determined.		
· pH-value:	5 - 6.5		
Change in condition			
Melting point/freezing point:	<0 °C		
Initial boiling point and boiling range	:>100 °C		
· Flash point:	>62 °C		
Flammability (solid, gas):	Not applicable.		
· Ignition temperature:	>250 °C		
Decomposition temperature:	Not determined.		
· Auto-ignition temperature:	Product is not self-igniting.		
Explosive properties:	Product is not explosive. However, formation of explosive a vapour mixtures are possible.		
Explosion limits:			

2.1 Vol %

19.3 Vol %

23 hPa

1.2 g/cm<sup>3</sup>

Not determined.

(Contd. on page 6)

Printing date 22.06.2019 Revision: 22.06.2019

Trade name: BioMass Sugar

(Contd. of page 5)

Vapour densityEvaporation rateNot determined.Not determined.

· Solubility in / Miscibility with

water: Emulsifiable.

• Partition coefficient: n-octanol/water: Not determined.

Viscosity:

**Dynamic:** Not determined. **Kinematic:** Not determined.

• 9.2 Other information NOTE: The physical data presented above are typical values and

should not be construed as a specification.

## **SECTION 10: Stability and reactivity**

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions No dangerous reactions known.
- 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials:

Strong acids and oxidising agents

Strong bases.

Reducing agents

· 10.6 Hazardous decomposition products: Carbon monoxide and carbon dioxide

#### **SECTION 11: Toxicological information**

- · 11.1 Information on toxicological effects
- · Acute toxicity

Harmful if swallowed or if inhaled.

- · Primary irritant effect:
- · Skin corrosion/irritation Based on available data, the classification criteria are not met.
- · Serious eye damage/irritation

Causes serious eye irritation.

- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · Subacute to chronic toxicity:

The 2-furaldehyde component may have effects on the liver. Tumours have been detected in experimental animals but may not be relevant to humans.

· Additional toxicological information:

Main Routes of exposure: During occupational handling, the main intake pathways for 2-furaldehyde proceed via the respiratory tract and through the skin. The substance can be also be absorbed into the body by ingestion.

Because of the low vapour pressure at room temperature, the risk of inhalative exposure in the workplace is reduced.

If swallowed the product may cause vomiting and could result in aspiration pneumonitis.

- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity

Suspected of causing cancer.

- · Reproductive toxicity Based on available data, the classification criteria are not met.
- · STOT-single exposure Based on available data, the classification criteria are not met.
- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.

Printing date 22.06.2019 Revision: 22.06.2019

Trade name: BioMass Sugar

(Contd. of page 6)

# **SECTION 12: Ecological information**

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability The organic portion of the product is biodegradable.
- 12.3 Bioaccumulative potential Product is not expected to bioaccumulate.
- 12.4 Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

- · 12.5 Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.
- 12.6 Other adverse effects No further relevant information available.

# **SECTION 13: Disposal considerations**

- · 13.1 Waste treatment methods
- · Recommendation

Recommended Hierarchy of Controls:

- Minimise waste:
- Reuse if not contaminated:
- Recycle, if possible; or
- Safe disposal (if all else fails).

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Contact waste processors for recycling information.

Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.

· European waste catalogue

Waste key numbers in accordance with the European Waste Catalogue (EWC) are origin-referred defined. Since this product is used in several industries, no waste key can be provided by the supplier. The waste key number should be determined in arrangement with your waste disposal partner or the responsible authority.

- · Uncleaned packaging:
- · Recommendation:

Do not mix with other waste streams.

Disposal must be made according to official regulations.

Container remains hazardous when empty. Continue to observe all precuations.

Containers, even those that are "empty," may contain residues that can develop flammable and/or hazardous vapours upon heating. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.

· Recommended cleansing agents: Water, if necessary together with cleansing agents.

# SECTION 14: Transport information 14.1 UN-Number ADR, ADN, IMDG, IATA Void 14.2 UN proper shipping name ADR, ADN, IMDG, IATA Void 14.3 Transport hazard class(es) ADR, ADN, IMDG, IATA Void Void

(Contd. on page 8)

Printing date 22.06.2019 Revision: 22.06.2019

Trade name: BioMass Sugar

	(Contd. of page 7)
· 14.4 Packing group · ADR, IMDG, IATA	Void
· 14.5 Environmental hazards:	Not applicable.
· 14.6 Special precautions for user · Stowage Category	Not applicable. A
· 14.7 Transport in bulk according to Annex II of  Marpol and the IBC Code  Not applicable.	
· Transport/Additional information:	Not dangerous according to the above specifications.
· UN ''Model Regulation'':	Void

## **SECTION 15: Regulatory information**

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · Seveso category H2
- Qualifying quantity (tonnes) for the application of lower-tier requirements 50 t
- · Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t
- · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- · National regulations:

Class	Share in %
Wasser	59.0
I	21.0

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has been carried out.

#### **SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

#### · Relevant phrases

H226 Flammable liquid and vapour.

H301 Toxic if swallowed.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H330 Fatal if inhaled.

H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

H412 Harmful to aquatic life with long lasting effects.

#### · Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 3: Flammable liquids – Category 3

Acute Tox. 3: Acute toxicity - Category 3

Acute Tox. 4: Acute toxicity – Category 4 Acute Tox. 2: Acute toxicity – Category 2

(Contd. on page 9)

Printing date 22.06.2019 Revision: 22.06.2019

Trade name: BioMass Sugar

(Contd. of page 8)

Skin Irrit. 2: Skin corrosion/irritation - Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Carc. 2: Carcinogenicity - Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard - Category 3

## **Annex: Exposure scenario**

- · Sector of Use SU1 Agriculture, forestry, fishery
- · Product category PC12 Fertilisers
- · Description of the activities / processes covered in the Exposure Scenario

See section 1 of the annex to the Safety Data Sheet.

- · Conditions of use
- $\cdot \ \textbf{Duration and frequency} \ \textbf{Short-term}.$
- · Physical parameters
- · Physical state Fluid
- · Concentration of the substance in the mixture The substance is main component.
- · Used amount per time or activity According to directions for use.
- · Other operational conditions
- · Other operational conditions affecting environmental exposure

Observe section 6 of the Safety Data Sheet (Accidental release measures).

Store in a bunded area.

· Other operational conditions affecting worker exposure

Respiratory protection is required in work areas with inadequate ventilation and during spraying application.

Avoid contact with eyes.

Avoid contact with the skin.

Do not breathe gas/vapour/aerosol.

Do not breathe gas/fume/vapour/aerosol.

Avoid direct contact with the chemical /product / preparation by organisational measures.

Ensure adequate ventilation, especially in closed rooms.

Keep away from food, drink and animal feedingstuffs.

Keep only in the original container in a cool, well-ventilated place.

Observe first aid measures (for treatment of exposure due to accidents).

#### · Other operational conditions affecting consumer exposure

Not applicable: professional and industrial use only.

- $\cdot \ Other \ operational \ conditions \ affecting \ consumer \ exposure \ during \ the \ use \ of \ the \ product \ Not \ applicable.$
- · Risk management measures
- · Worker protection

#### · Organisational protective measures

Deploy only trained chemical workers.

Employment restrictions concerning juveniles must be observed.

Employment restrictions concerning pregnant and lactating women must be observed.

Employment restrictions concerning women of child-bearing age must be observed.

Ensure that the working area is organised, well lit and ventilated, with enough space to handle spilled product.

Handling procedures must be well documented.

Keep away from food, beverages and animal feed.

Make sure that the workplace is well-lit and organised.

Provide emergency eye wash station and mark its location clearly.

Provide Internal Plant Instruction.

Provide washing facilities in the workplace.

Allow access to authorised personnel only.

Avoid contact with drinking water and / or food during application.

Consider section 4 of the Safety Data Sheet (First aid measures).

#### · Technical protective measures

Ensure good ventilation/exhaustion at the workplace.

Keep away from heat and direct sunlight.

Open and handle receptacle with care.

Prevent formation of aerosols.

Store in cool, dry place in tightly closed receptacles.

(Contd. on page 10)

Printing date 22.06.2019 Revision: 22.06.2019

Trade name: BioMass Sugar

(Contd. of page 9)

Washing facilities / Water for cleaning eyes and skin should be available.

#### · Personal protective measures

Do not inhale gases / fumes / aerosols.

Avoid contact with the skin.

Avoid contact with the eyes.

Tightly sealed goggles

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

Respirator for organic gases and particulates adapted to the airborne concentration of the substance recomended.

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation Do not eat or drink while working.

Keep away from foodstuffs, beverages and feed.

Storing food in the working area is prohibited.

Ensure that washing facilities are available at the work place.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Use suitable respiratory protective device in case of insufficient ventilation.

- · Measures for consumer protection Not applicable: professional and industrial use only.
- · Environmental protection measures
- · Water Do not allow product to reach sewage system or any water course in the undiluted form.
- · Soil No special measures required.
- · Disposal measures

Ensure that waste is collected and contained.

Must not be disposed of with household waste. Do not allow to reach sewage system.

Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.

#### · Disposal procedures

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Containers, even those that are "empty," may contain residues that can develop flammable and/or hazardous vapours upon heating. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.

- · Waste type Partially emptied and uncleaned packaging
- · Exposure estimation
- · Consumer Not relevant for this Exposure Scenario.
- · Guidance for downstream users No further relevant information available.

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