



SAFETY DATA SHEET

Glucose-Free Respiration Buffer

according to Regulation
(EC) No. 1272/2008
Version 1.0
Date: 12-04-2017

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

1.1 Product identifier

Product Name: Glucose-Free Respiration Buffer
Product Part Number: PHC-301

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

Use of the substance/preparation: Laboratory Chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Name of Manufacturer: Luxcel Biosciences Ltd
Address of Manufacturer: Hoffman Park, Inchera,
Little Island, Cork,
T45 YX04
Ireland
Telephone: +353 (0)21 2428880
Website: www.luxcel.com
Email: info@luxcel.com

1.4 Emergency telephone number

Emergency Tel No: +353 (0)21 2428880 (08.30 – 17.00 GMT)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]
Not classified as hazardous for supply

Classification (1999/45/EC)
Not classified as hazardous for supply
Risk Phrases:
For full text of R-phrases and Hazard- and EU-statements: see section 15.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]
GHS signal word: None
GHS Hazard phrases: based on evaluation of currently available data this substance or mixture is not classifiable according to GHS
GHS precautionary phrases: No phrases apply
GHS Storage and Disposal Phrases: Please refer to section 7 for storage and section 13 for Disposal Information.

2.3 Other Hazards –

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic(PBT), or very bioaccumulative(vPvB) at levels of 0.1% or higher.



SAFETY DATA SHEET

Glucose-Free Respiration Buffer

according to Regulation
(EC) No. 1272/2008
Version 1.0
Date: 12-04-2017

SECTION 3: Composition/information on ingredients

3.1 Substances

3.2 Mixtures

Phosphate Buffer

No components need to be disclosed according to the applicable regulations.

SECTION 4: First aid measures

4.1 Description of first aid measures

Contact with skin

Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

If skin irritation or rash occurs: Get medical advice/attention.

Contact with eyes

If substance has gotten into eyes, immediately wash out with plenty of water for at least 15 minutes

Irrigate eyes thoroughly while lifting eyelids Seek medical advice if necessary

Ingestion

Rinse mouth with water (do not swallow)

Never make an unconscious person vomit or drink fluids

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

Inhalation

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration.

Call a POISON CENTER or doctor/physician if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

May cause irritation

See section 11 for more description of symptoms.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

In case of fire: Use foam, carbon dioxide or dry agent for extinction.

5.2 Special hazard arising from the substance or mixture

Nature of decomposition products not known.

5.3 Advice for firefighters

Keep container(s) exposed to fire cool, by spraying water

Wear chemical protection suit and positive-pressure breathing apparatus

Wear protective clothing as per section 8



SAFETY DATA SHEET

Glucose-Free Respiration Buffer

according to Regulation (EC) No. 1272/2008
Version 1.0
Date: 12-04-2017

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Shut off all ignition sources.
- Avoid raising and breathing dust, vapors, mist, or gas, and provide adequate ventilation.
- Remove contaminated clothing.
- Wear protective clothing as per section 8
- Wash thoroughly after dealing with spillage.

6.2 Environmental Precautions

- Do not allow the product enter public sewers and watercourses.

6.3 Methods and material for containment and cleaning up

- Absorb spillage in inert material and shovel up.
- Place in sealable container.
- Seal the containers and label them.
- Transfer to a chemical waste container for disposal in accordance with local regulations.
- Ventilate the area and wash spill site after material pick-up is complete.

6.4 Reference to other sections

- For disposal see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Avoid formation of dust and aerosols.
- Do not breathe dust, vapors, mist or gas.
- Avoid contact with skin and eyes.
- Do not eat, drink or smoke when using this product.
- Ensure adequate ventilation.
- Eyewash bottles should be available.
- Wash hands thoroughly after using this substance.

7.2 Conditions for safe storage, including any incompatibilities

- Store at temperature not exceeding 25°C/77°F. Keep in a cool place.
- Keep container tightly closed in a dry and well-ventilated place.
- Storage class (TRGS 510): Non-combustible solids.

7.3 Specific end use(s)

- No specific data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters

- Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls

- Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.



SAFETY DATA SHEET

Glucose-Free Respiration Buffer

according to Regulation (EC) No. 1272/2008
Version 1.0
Date: 12-04-2017

Personal protective equipment

Eyewash bottles should be available

Engineering controls should be provided to prevent the need for ventilation

No respiratory protection is needed if ventilation/extraction is adequate, otherwise wear approved dust mask, N95 (US) or type FFP1 (EN143) dust masks.

Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374.

Wear safety glasses approved to standard for NIOSH (US) or EN 166.

Wear suitable protective clothing: Gloves, Safety glasses, Lab coat.

Do not take internally.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance Form:	powder, white
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	6.8-7.2 at 25°C
e) Melting point/freezing point	no data available
f) Initial boiling point and boiling range	no data available
g) Flash point	no data available
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or explosive limits	no data available
k) Vapour pressure	no data available
l) Vapour density	no data available
m) Relative density	no data available
n) Water solubility	no data available
o) Partition coefficient: n-octanol/water	no data available
p) Auto-ignition temperature	Product is not self-igniting.
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties	no data available
t) Oxidizing properties	no data available

9.2 Other information

No information available



SAFETY DATA SHEET

Glucose-Free Respiration Buffer

according to Regulation
(EC) No. 1272/2008
Version 1.0
Date: 12-04-2017

SECTION 10: Stability and reactivity

10.1 Reactivity

No information available.

10.2 Chemical stability

Stable if stored in accordance with information listed on the product insert.

10.3 Possibility of hazardous reactions

No hazardous reactions known if used for its intended purpose.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

Strong oxidizing agents, strong acids.

10.6 Hazardous Decomposition Products

Other decomposition products: No data available.

In event of fire: See section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

No data available

Skin corrosion/ irritation

No data available

Serious eye damage/ eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available

Specific target organ toxicity – Single exposure

No data available

Specific target organ toxicity – Repeated exposure

No data available

Aspiration hazard



SAFETY DATA SHEET

Glucose-Free Respiration Buffer

according to Regulation
(EC) No. 1272/2008
Version 1.0
Date: 12-04-2017

No data available

Additional information

RTECS: No data available

Vomiting, Diarrhoea, Dehydration and congestion may occur in internal organs. Hypertonic salt solutions can produce inflammatory reactions in the gastrointestinal tract. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information

12.1 Toxicity

No data available.

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

No data available

SECTION 13 Disposal considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated Packaging

Dispose of as unused product

SECTION 14: Transport information

14.8 Land Transport (US DOT)

DOT Proper Shipping Name: Not dangerous goods

DOT Hazard Class:

UN/NA:

14.9 Land Transport (European ADR/RID)



SAFETY DATA SHEET

Glucose-Free Respiration Buffer

according to Regulation
(EC) No. 1272/2008
Version 1.0
Date: 12-04-2017

ADR/RID Shipping Name: Not dangerous goods.

UN Number:

Hazard Class:

14.11 Air Transport (ICAO/IATA)

ICAO/IATA Shipping Name: Not dangerous goods

Additional Transport information: Transport in accordance with local, state, and federal Regulations.

SECTION 15: Regulatory information

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

This Safety Data Sheet is provided in compliance with the EC Directive 1907/2006-453/2010.

SECTION 16: Other information

Additional Information about this product:

No data available.

Company Policy or Disclaimer:

This document is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. We make no warranty of the merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.



SAFETY DATA SHEET

Glucose

according to Regulation
(EC) No. 1907/2006
Version 1.0
Date: 12-04-2017

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

1.1 Product identifier

Product Name: Glucose
Product Part Number: PHC-302

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

Use of the substance/preparation: Laboratory Chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company: Luxcel Biosciences Ltd
Hoffman Park, Inchera
Little Island, Cork,
T45 YX04
Ireland
Telephone: +353 (0)21 2428880
Website: www.luxcel.com
Email: info@luxcel.com

1.4 Emergency telephone number

Emergency Tel No: +353 (0)21 2428880 (08.30 – 17.00 GMT)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008..
This substance is not classified as dangerous according to Directive 67/548/EEC.

2.2 Label elements

This product does not need to be labelled in accordance with EC directives or respective national laws.

2.3 Other Hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	:	Dextrose
Formula	:	C ₆ H ₁₂ O ₆
Molecular weight	:	180.16 g/mol
CAS-No.	:	50-99-7
EC-No.	:	200-075-1



SAFETY DATA SHEET

Glucose

according to Regulation
(EC) No. 1907/2006
Version 1.0
Date: 12-04-2017

SECTION 4: First aid measures

4.1 Description of first aid measures

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazard arising from the substance or mixture

Carbon oxides

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further Information

No data available.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing dust, vapors, mist or gas.

For personal protection see section 8.

6.2 Environmental Precautions

No special environmental precautions required.

6.3 Methods and material for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.



SAFETY DATA SHEET

Glucose

according to Regulation
(EC) No. 1907/2006
Version 1.0
Date: 12-04-2017

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Provide appropriate exhaust ventilation at places where dust is formed.
For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool place. Keep container tightly closed in a dry and well-ventilated place.

Hygroscopic

Storage Class (TRGS 510): Non Combustible solids.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls

General industrial hygiene and safety practice.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.
Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740/ Aldrich Z677272, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740/ Aldrich Z677272, Size M)



SAFETY DATA SHEET

Glucose

according to Regulation
(EC) No. 1907/2006
Version 1.0
Date: 12-04-2017

Data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, email sales@kcl.de,

Test method: EN974

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use or scenario.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

No special environmental precautions required.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance:	Form: powder
	Color: White
b) Odour	No data available
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	150-152°C
f) Initial boiling point and boiling range	No data available
g) Flash point	Not applicable No data available
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	No data available
l) Vapour density	No data available
m) Relative density	No data available
n) Water solubility	Soluble
o) Partition coefficient: n-octanol/water	No data available
p) Auto-ignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	no data available

9.2 Other Safety information

No information available



SAFETY DATA SHEET

Glucose

according to Regulation
(EC) No. 1907/2006
Version 1.0
Date: 12-04-2017

SECTION 10: Stability and reactivity

10.1 Reactivity

No information available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous Decomposition Products

Other decomposition products - No data available
In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral – Rat – 25,800mg/kg
Remark: Behavioral: Coma. Cyanosis Diarrhoea

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

Mouse
Lymphocyte
Mutation in mammalian somatic cells.

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available



SAFETY DATA SHEET

Glucose

according to Regulation
(EC) No. 1907/2006
Version 1.0
Date: 12-04-2017

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: LZ6600000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information

12.1 Toxicity

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

No data available

SECTION 13 Disposal considerations

13.1 Waste treatment methods Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated Packaging

Dispose of as unused product



SAFETY DATA SHEET

Glucose

according to Regulation
(EC) No. 1907/2006
Version 1.0
Date: 12-04-2017

SECTION 14: Transport information

14.1 UN NUMBER

ADR/RID:-

IMDG:-

IATA:-

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)

ADR/RID:-

IMDG:-

IATA:-

14.4 Packaging group

ADR/RID:-

IMDG:-

IATA:-

14.5 Environmental Hazards

ADR/RID:- no

IMDG Marine pollutant: no

IATA:- no

14.6 Special precautions for the user

No data available

SECTION 15: Regulatory information

This Safety Data Sheet is provided in compliance with the EC Directive 1907/2006.

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

No data available

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

SECTION 16: Other information

Further information

This document is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. We make no warranty of the merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.



SAFETY DATA SHEET

Oligomycin

according to Regulation
(EC) No. 1272/2008
Version 1.0
Date: 12-04-2017

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

1.1 Product identifier

Product Name: Oligomycin
Product Part Number: PHC-303

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

Use of the substance/preparation: Laboratory Chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Name of Manufacturer: Luxcel Biosciences Ltd
Address of Manufacturer: Hoffman Park, Inchera,
Little Island, Cork,
T45 YX04
Ireland
Telephone: +353 (0)21 2428880
Website: www.luxcel.com
Email: info@luxcel.com

1.4 Emergency telephone number

Emergency Tel No: +353 (0)21 2428880 (08.30 – 17.00 GMT)



SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [EU-GHS/CLP]
Acute toxicity, Oral (Category 3)

Classification according to EU Directives 67/548/EEC or 1999/45/EC
Harmful if swallowed.

2.2 Label elements

Pictogram	
Signal word	Danger
Hazard statement(s) H301	Toxic if swallowed.
Precautionary statement(s) P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
Supplemental Hazard Statements	None
According to European Directive 67/548/EEC as amended.	
Hazard symbol(s)	
R-phrases(s) R22	Harmful if swallowed.
S-phrases(s)	None

2.3 Other Hazards

None



SAFETY DATA SHEET

Oligomycin

according to Regulation
(EC) No. 1272/2008
Version 1.0
Date: 12-04-2017

SECTION 3: Composition/information on ingredients

3.1 Mixtures

Component	Classification	Concentration
Oligomycin A		
CAS-No. 579-13-5	Acute Tox. 4; H302	-
EC-No. 29-437-3	Xn, R22	
Oligomycin A, 28-oxo-		
CAS-No. 11050-94-5	Acute Tox. 4; H302	-
EC-No. 234-275-5	Xn, R22	
Oligomycin A, 12-deoxy-		
CAS-No. 11052-72-5	Acute Tox. 4, H302	-
EC-No. 234-276-0	Xn, R22	
Methanol		
CAS-No. 67-56-1	Flam. Liq. 2; Acute Tox. 3;	1 – 3 %
EC-No. 200-659-6	STOT SE 1; H225, H301, H311, H331,	
Index-No. 603-001-00-X	H370	
	F, T, R11 – R23/24/25 – R39/23/24/25	

For the full text of the H-Statements and R-Phrases mentioned in this section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move the person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Take the victim immediately to hospital. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

4.2 Most important symptoms and effects, both acute and delayed

Warning: contains methanol. May be fatal or cause blindness if swallowed. Cannot be made nonpoisonous. Gastrointestinal disturbance. May cause convulsions.

4.3 Indication of any immediate medical attention and special treatment needed

No data available



SAFETY DATA SHEET

Oligomycin

according to Regulation
(EC) No. 1272/2008
Version 1.0
Date: 12-04-2017

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use water-spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

5.2 Special hazard arising from the substance or mixture

Carbon oxides

5.3 Advice for firefighters

Wear self-contained breathing apparatus for fire-fighting if necessary.

5.4 Further information

No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

6.2 Environmental Precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and material for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.
Provide appropriate exhaust ventilation at places where dust is formed.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
Recommended storage temperature: -20°C

7.3 Specific end use(s)

No data available.



SAFETY DATA SHEET

Oligomycin

according to Regulation
(EC) No. 1272/2008
Version 1.0
Date: 12-04-2017

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters

Component	CAS-No.	Value	Control Parameters	Basis
Methanol	67-59-1	OELV – 8 hrs (TWA)	200 ppm 260 mg/m ³	Ireland. List of Chemical Agents and Occupational Exposure Limit Values. -Schedule 1
	Remarks	Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit value should be used Indicative Occupational Exposure Limit Value		
		TWA	200 ppm 260 mg/m ³	Europe. Indicative occupational exposure limit values.
		Indicates the possibility of significant uptake through the skin Indicative		

8.2 Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes, and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).



SAFETY DATA SHEET

Oligomycin

according to Regulation
(EC) No. 1272/2008
Version 1.0
Date: 12-04-2017

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance Form:	powder, white
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	Melting point/range: 150°C
f) Initial boiling point and boiling range	no data available
g) Flash point	no data available
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or explosive limits	no data available
k) Vapour pressure	no data available
l) Vapour density	no data available
m) Relative density	no data available
n) Water solubility	no data available
o) Partition coefficient: n-octanol/water	no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties	no data available
t) Oxidizing properties	no data available

9.2 Other information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No information available.

10.2 Chemical stability

No data available.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

Acids, oxidizing agents, alkali metals, strong oxidizing agents, acid chlorides, acid anhydrides, reducing agents.

10.6 Hazardous Decomposition Products

Other decomposition products: No data available.



SAFETY DATA SHEET

Oligomycin

according to Regulation
(EC) No. 1272/2008
Version 1.0
Date: 12-04-2017

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

No data available

Skin corrosion/ irritation

No data available

Serious eye damage/ eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available

Specific target organ toxicity – Single exposure

No data available

Specific target organ toxicity – Repeated exposure

No data available

Aspiration hazard

No data available

Potential Health effects

Inhalation	Toxic if inhaled. May cause respiratory tract irritation.
Ingestion	Toxic if swallowed.
Skin	Toxic if absorbed through skin. May cause skin irritation.
Eyes	May cause eye irritation.

Signs and Symptoms of Exposure

Warning: contains methanol. May be fatal or cause blindness if swallowed. Cannot be made non-poisonous. Gastrointestinal disturbance. May cause convulsions.

Additional information

RTECS: not available



SAFETY DATA SHEET

Oligomycin

according to Regulation
(EC) No. 1272/2008
Version 1.0
Date: 12-04-2017

SECTION 12: Ecological information

12.1 Toxicity

No data available.

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

No data available

SECTION 13 Disposal considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated Packaging

Dispose of as unused product

SECTION 14: Transport information

14.1 UN NUMBER

ADR/RID:-

IMDG:-

IATA:-

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)

ADR/RID:-

IMDG:-

IATA:-

14.4 Packaging group

ADR/RID:-

IMDG:-

IATA:-

14.5 Environmental Hazards

ADR/RID:- no

IMDG Marine pollutant: no

IATA:- no

14.6 Special precautions for the user

No data available



SAFETY DATA SHEET

Oligomycin

according to Regulation
(EC) No. 1272/2008
Version 1.0
Date: 12-04-2017

SECTION 15: Regulatory information

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

This Safety Data Sheet is provided in compliance with the EC Directive 1907/2006

15.2 Chemical Safety Assessment

No data available

SECTION 16: Other information

Additional Information about this product:

Acute Tox.	Acute toxicity
Flam. Liq.	Flammable liquids
H225	Highly flammable liquid and vapour
H301	Toxic if swallowed.
H32	Harmful if swallowed.
H311	Toxic in contact with skin
H370	Causes damage to organs.
STOT SE	Specific target organ toxicity – single exposure
F	Highly flammable
R11	Highly flammable
R22	Harmful if swallowed.
R23/24/25	Toxic by inhalation, in contact with skin and if swallowed
T	Toxic
R39/23/24/25	Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
Xn	Harmful

Company Policy or Disclaimer:

This document is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. We make no warranty of the merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.



SAFETY DATA SHEET

2-Deoxy-D-glucose

according to Regulation
(EC) No. 1907/2006
Version 1.0
Date: 07-04-2017

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

1.1 Product identifier

Product Name: 2-Deoxy-D-glucose
Product Part Number: PHC-304

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

Use of the substance/preparation: Scientific research and development

1.3 Details of the supplier of the safety data sheet

Company: Luxcel Biosciences Ltd
Hoffman Park, Inchera
Little Island, Cork,
T45 YX04
Ireland
Telephone: +353 (0)21 2428880
Website: www.luxcel.com
Email: info@luxcel.com

1.4 Emergency telephone number

Emergency Tel No: +353 (0)21 2428880 (08.30 – 17.00 GMT)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008

2.2 Label elements

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008

2.3 Other Hazards – None

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms : 2-Deoxy-D-arabinohexose
Formula : $C_6H_{12}O_5$
Molecular weight : 164.16g/mol
CAS-No. : 154-17-6
EC-No. : 205-823-0

No components need to be disclosed according to the applicable regulations.

SECTION 4: First aid measures

4.1 Description of first aid measures

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Keep the patient warm. Consult doctor if symptoms persist.



SAFETY DATA SHEET

2-Deoxy-D-glucose

according to Regulation
(EC) No. 1907/2006
Version 1.0
Date: 07-04-2017

In case of skin contact

Wash off with soap and plenty of water. Consult physician.

In case of eye contact

Flush eyes with water as a precaution. Consult physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazard arising from the substance or mixture

Carbon oxides

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary. Wear full protective suit.

5.4 Further Information

No data available.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing dust, vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

6.2 Environmental Precautions

Do not let product enter drains.

6.3 Methods and material for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

For information on safe handling see section 7.

For information on personal protection equipment see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive



SAFETY DATA SHEET

2-Deoxy-D-glucose

according to Regulation
(EC) No. 1907/2006
Version 1.0
Date: 07-04-2017

fire protection.

For precaution see section 2.2

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool place. Keep container tightly closed in a dry and well-ventilated place.

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls

General industrial hygiene and safety practice.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11mm

Break through time: 480 min

Material tested: Dermatrill® (KCL 740/ Aldrich Z677272, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11mm

Break through time: 480 min

Material tested: Dermatrill® (KCL 740/ Aldrich Z677272, Size M)

Data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, email sales@kcl.de,

Test method: EN974

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use or scenario.



SAFETY DATA SHEET

2-Deoxy-D-glucose

according to Regulation
(EC) No. 1907/2006
Version 1.0
Date: 07-04-2017

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance:	Form: Powder, white
b) Odour	No data available
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	Melting point/range: 146-147°C
f) Initial boiling point and boiling range	No data available
g) Flash point	No data available
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	No data available
l) Vapour density	No data available
m) Relative density	No data available
n) Water solubility	Soluble.
o) Partition coefficient: n-octanol/water	No data available
p) Auto-ignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	no data available

9.2 Other Safety information

No information available



SAFETY DATA SHEET

2-Deoxy-D-glucose

according to Regulation
(EC) No. 1907/2006
Version 1.0
Date: 07-04-2017

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous Decomposition Products

Other decomposition products - No data available
In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Subcutaneous – Rat – 250mg/kg

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

Reproductive Toxicity – Rat – Oral

Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).

Developmental Toxicity – Rat – Oral

Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

Specific target organ toxicity - single exposure

No data available



SAFETY DATA SHEET

2-Deoxy-D-glucose

according to Regulation
(EC) No. 1907/2006
Version 1.0
Date: 07-04-2017

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: Not available

SECTION 12: Ecological information

12.1 Toxicity

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

No data available

SECTION 13 Disposal considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated Packaging

Dispose of as unused product

SECTION 14: Transport information

14.1 UN NUMBER

ADR/RID:-

IMDG:-

IATA:-

14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods



SAFETY DATA SHEET

2-Deoxy-D-glucose

according to Regulation
(EC) No. 1907/2006
Version 1.0
Date: 07-04-2017

14.3 Transport hazard class(es)

ADR/RID:-

IMDG:-

IATA:-

14.4 Packaging group

ADR/RID:-

IMDG:-

IATA:-

14.5 Environmental Hazards

ADR/RID:- no

IMDG Marine pollutant: no

IATA:- no

14.6 Special precautions for the user

No data available

SECTION 15: Regulatory information

This Safety Data Sheet complies with the requirements of Regulation (EC) No. 453/2010.

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

No data available

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

SECTION 16: Other information

Further information

This document is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. We make no warranty of the merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.



SAFETY DATA SHEET

Glucose oxidase

according to Regulation
(EC) No. 1907/2006
Version 1.0
Date: 12-04-2017

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

1.1 Product identifier

Product Name: Glucose Oxidase, from *Aspergillus niger*
Product Part Number: PHC-305

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

Use of the substance/preparation: Laboratory Chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company: Luxcel Biosciences Ltd
Hoffman Park, Inchera
Little Island, Cork,
T45 YX04
Ireland
Telephone: +353 (0)21 2428880
Website: www.luxcel.com
Email: info@luxcel.com

1.4 Emergency telephone number

Emergency Tel No: +353 (0)21 2428880 (08.30 – 17.00 GMT)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]
Respiratory sensitization (Category 1)

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]
May cause sensitization by inhalation.

2.2 Label elements

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

Pictogram



Signal Word

Danger

Hazard Statement(s)
H334

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statement(s)

P261
P342 + P311

Avoid breathing dust/fume/gas/mist/vapour/spray.
If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

Supplemental Hazard
Statements

None

According to European Directive 67/548/EEC as amended.



SAFETY DATA SHEET

Glucose oxidase

according to Regulation
(EC) No. 1907/2006
Version 1.0
Date: 12-04-2017

Hazard symbol(s)



R-phrase(s)

R42

May cause sensitization by inhalation.

S-phrase(s)

S22

Do not breathe dust.

S45

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

2.3 Other Hazards – None

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms: G.Od.
GOx
 β -D-Glucose:oxygen 1-oxidoreductase

Component	Concentration
Oxidase, glucose	
CAS-No. 9001-37-0	-
EC-No. 232-601-0	

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.



SAFETY DATA SHEET

Glucose oxidase

according to Regulation
(EC) No. 1907/2006
Version 1.0
Date: 12-04-2017

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazard arising from the substance or mixture

No data available.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further Information

No data available.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing dust, vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

6.2 Environmental Precautions

Do not let product enter drains.

6.3 Methods and material for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool place. Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature: -20°C

7.3 Specific end use(s)

No data available.



SAFETY DATA SHEET

Glucose oxidase

according to Regulation
(EC) No. 1907/2006
Version 1.0
Date: 12-04-2017

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Use face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.
Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG (US) or type ABEK (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

No special environmental precautions required.



SAFETY DATA SHEET

Glucose oxidase

according to Regulation
(EC) No. 1907/2006
Version 1.0
Date: 12-04-2017

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance:	Form: powder, Lyophilized
b) Odour	No data available
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	No data available
f) Initial boiling point and boiling range	No data available
g) Flash point	Not applicable No data available
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	No data available
l) Vapour density	No data available
m) Relative density	1.000 g/cm ³
n) Water solubility	No data available
o) Partition coefficient: n-octanol/water	No data available
p) Auto-ignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	no data available

9.2 Other Safety information

No information available

SECTION 10: Stability and reactivity

10.1 Reactivity

No information available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

oxidizing agents.

10.6 Hazardous Decomposition Products

Other decomposition products - No data available



SAFETY DATA SHEET

Glucose oxidase

according to Regulation
(EC) No. 1907/2006
Version 1.0
Date: 12-04-2017

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Intraperitoneal – mouse – 3mg/kg

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

May cause allergic respiratory reaction.

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Potential Health effects

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion	May be harmful if swallowed.
Skin	May be harmful if absorbed through skin. May cause skin irritation.
Eyes	May cause eye irritation.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional Information

RTECS: RQ8452000



SAFETY DATA SHEET

Glucose oxidase

according to Regulation
(EC) No. 1907/2006
Version 1.0
Date: 12-04-2017

SECTION 12: Ecological information

12.1 Toxicity

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

No data available

SECTION 13 Disposal considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated Packaging

Dispose of as unused product

SECTION 14: Transport information

14.1 UN NUMBER

ADR/RID:-

IMDG:-

IATA:-

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)

ADR/RID:-

IMDG:-

IATA:-

14.4 Packaging group

ADR/RID:-

IMDG:-

IATA:-

14.5 Environmental Hazards

ADR/RID:- no

IMDG Marine pollutant: no

IATA:- no

14.6 Special precautions for the user

No data available



SAFETY DATA SHEET

Glucose oxidase

according to Regulation
(EC) No. 1907/2006
Version 1.0
Date: 12-04-2017

SECTION 15: Regulatory information

This Safety Data Sheet is provided in compliance with the EC Directive 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
No data available

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

SECTION 16: Other information

Further information

This document is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. We make no warranty of the merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.