

Safety data sheet

acc. to (EC) No 1907/2006, as amended by UK SI 2019/75
Printing date 08.09.2021 Version number 10 Revision: 08.09.2021

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

1.1 Product identifier

Trade name: Glucifer Artificial Grass Adhesive

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

No further relevant information available.

Application of the substance / the mixture Sealant

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Glucifer Ltd.

Unit 1, Squires Industrial Estate,

Palehouse Common, East Sussex,

TN22 5RB

Sales@glucifer.co.uk

Further information obtainable from:

Glucifer Ltd

UK +44 (0) 1435 83 11 44

EU + +31(0) 412 78 62 11.

In an emergency, please contact 999 Or 111 or contact a
doctor.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

Acute Tox. 4 H332 Harmful if inhaled.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin Sens. 1 H317 May cause an allergic skin reaction.

Carc. 2 H351 Suspected of causing cancer.

STOT SE 3 H335 May cause respiratory irritation.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

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

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Hazard pictograms

GHS02 GHS07 GHS08

Signal word Danger

Contains:

diphenylmethanediisocyanate, isomers and homologues

Hazard statements

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

H332 Harmful if inhaled.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P284 In case of inadequate ventilation wear respiratory protection.

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/DOCTOR.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 C/122 F.

Supplemental information:

EUH204 Contains isocyanates. May produce an allergic reaction.

As from 24 August 2023 adequate training is required before industrial or professional use.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

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SECTION 3: Composition/information on ingredients

3.2 Mixtures Description: Active substance with propellant

Dangerous components:		
CAS: 9016-87-9 EC number: 618-498-9	diphenylmethanediisocyanate, isomers and homologues Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	50- <75%

CAS: 1244733-77-4 EC number: 807-935-0 Reg.nr.: 01-2119486772-26-xxxx	tris(2-chloro-1-methylethyl)phosphate Acute Tox. 4, H302	10- <20%
CAS: 9082-00-2	Ethoxylated/propoxylated glycerol Acute Tox. 4, H302	10- <20%
CAS: 25791-96-2 NLP: 500-044-5	Glycerol, propoxylated Acute Tox. 4, H302	10- <20%
CAS: 115-10-6 EINECS: 204-065-8 Reg.nr.: 01-2119472128-37-xxxx	dimethyl ether Flam. Gas 1A, H220; Press. Gas (Comp.), H280	5-<10%
CAS: 75-28-5 EINECS: 200-857-2 Reg.nr.: 01-2119485395-27-xxxx	isobutane Flam. Gas 1A, H220; Press. Gas (Comp.), H280	5-<10%
CAS: 74-98-6 EINECS: 200-827-9 Reg.nr.: 01-2119486944-21-xxxx	propane Flam. Gas 1A, H220; Press. Gas (Comp.), H280	1-<5%

SVHC - Additional information:

For the wording of the listed hazard phrases refer to section 16.
 While curing the following substances are formed and released by a reaction with atmospheric humidity: Carbon dioxide (CO₂)

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SECTION 4: First aid measures

4.1 Description of first aid measures

General information: Take affected persons out of danger area and lay down.

After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If symptoms persist consult doctor.

Immediately remove all soiled and contaminated clothing

After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing: Do not induce vomiting; call for medical help immediately.

Information for doctor: No further relevant information available.

4.2 Most important symptoms and effects, both acute and delayed

May cause an allergic skin reaction.

Irritating to eyes, respiratory system and skin.

Nausea

Harmful if inhaled.

Hazards No further relevant information available.

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.

For safety reasons unsuitable extinguishing agents: Water with full jet

5.2 Special hazards arising from the substance or mixture

Can form explosive gas-air mixtures.

Carbon monoxide (CO)

Carbon

dioxide (CO₂)

Nitrogen oxides (NO_x)

Under certain fire conditions, traces of other toxic gases cannot be excluded, e.g.:

Hydrogen cyanide (HCN)

5.3 Advice for firefighters

Protective equipment: Wear self-contained respiratory protective device.

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Avoid contact with the eyes and skin.

Ensure adequate ventilation.

Keep away from ignition sources.

6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Dispose of contaminated material as waste according to Section 13.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

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.

Keep away from sources of ignition - No smoking.

Do not breathe vapour.

Avoid contact with the eyes and skin.

Information about fire - and explosion protection:

Do not spray onto a naked flame or any incandescent material.

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.

The usual precautionary measures are to be adhered to when handling chemicals.

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7.2 Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles:

Store in a cool location.

Observe official regulations on storing packaging's with pressurised containers.

Store only in unopened original receptacles.

Information about storage in one common storage facility:

Store away from water.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

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

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Additional information about design of technical facilities: No further data; see item 7.

Ingredients with limit values that require monitoring at the workplace:

CAS: 9016-87-9 diphenylmethanediisocyanate, isomers and homologues

WEL	Short-term value: 0.07 mg/m Long-term value: 0.02 mg/m Sen; as -NCO
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CAS: 115-10-6 dimethyl ether

WEL	Short-term value: 958 mg/m , 500 ppm Long-term value: 766 mg/m , 400 ppm PNECs
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CAS: 9016-87-9 diphenylmethanediisocyanate, isomers and homologues

WEL	PNEC 1 mg/L (fresh water) 10 mg/L (intermittent release) 0.1 mg/L (salt water)
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CAS: 1244733-77-4 tris(2-chloro-1-methylethyl)phosphate

PNEC	0.64 mg/L (fresh water) 0.064 mg/L (marine)
PNEC	1.7 mg/kg dwt (soil) 1.34 mg/kg dwt (sediment (salt water))

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CAS: 115-10-6 dimethyl ether

PNEC	0.155 mg/L (fresh water) 160 mg/L (sewage treatment plant) 1.549 mg/L (intermittent release) 0.016 mg/L (salt water)
PNEC	0.045 mg/kg (soil) 0.069 mg/kg (sediment (salt water))

Additional Occupational Exposure Limit Values for possible hazards during processing:

Carbon dioxide (CO₂)

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

8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

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.

This product should not be used under conditions of poor ventilation unless a protective mask with an

appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

For further guidance,

please refer to HSE HSG53 "Respiratory Protective Equipment at work - A Practical Guide".

Protection of hands:



Protective gloves

Material of gloves

Butyl rubber, BR

Recommended thickness of the material: 0.7 mm

Nitrile rubber, NBR

Recommended thickness of the material: 0.4 mm

Penetration time of glove material

For the mixture of chemicals mentioned below the penetration time has to be at least 480 minutes

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(Permeation according to EN 16523-1:2015: Level 6).

Eye protection:



Tightly sealed goggles

Body protection:



Protective work clothing

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Form: Aerosol

Colour: According to product specification

Odour: Characteristic

Odour threshold: Not determined.

pH-value: Mixture reacts violently with water.

Melting point/freezing point: Not applicable, as aerosol

Initial boiling point and boiling range: Not applicable, as aerosol.

Flash point: -97 C

Flammability (solid, gas): Not applicable.

Ignition temperature: 235 C

Decomposition temperature: Not determined.

Auto-ignition temperature: Product is not self igniting.

Explosive properties: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

Explosion limits:

Lower: 1.8 Vol %

Upper: 18.6 Vol %

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Vapour pressure at 20 C: 0 hPa
Density at 20 C: 1.08 g/cm
Relative density: Not determined.
Vapour density: Not determined.
Evaporation rate: Not applicable.

Solubility in / Miscibility with water: Immiscible / difficult to mix.

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

Viscosity:

Dynamic: Not determined.
Kinematic: Not determined.

Solvent content:

VOC (EU) 161.9 g/l
VOC (EC) 14.99 %

9.2 Other information No further relevant information available.

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

Danger of bursting.
Forms explosive gas mixture with air.

10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5 Incompatible materials: No further relevant information available.

10.6 Hazardous decomposition products:

Carbon monoxide and carbon dioxide
Nitrogen oxides (NO_x)

Under certain fire conditions, traces of other toxic gases cannot be excluded, e.g.:
Hydrogen cyanide (prussic acid)

SECTION 11: Toxicological information

11.1 Information on toxicological effects - Acute toxicity

Harmful if inhaled.

Oral	LD50 >10,000 mg/kg (rat)
Dermal	LD50 >10,000 mg/kg (rabbit)
Inhalative	LC50/4 h 1.5 mg/L (rat)



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CAS: 1244733-77-4 tris(2-chloro-1-methylethyl)phosphate
Oral LD50 632 mg/kg (rat)
CAS: 9082-00-2 Ethoxylated/propoxylated glycerol
Oral LD50 >500 mg/kg (rat) Dermal LD50 >2,000 mg/kg (rabbit)
CAS: 25791-96-2 Glycerol, propoxylated
Oral LD50 1,999 mg/kg (rat)

<p>Primary irritant effect: Skin corrosion/irritation Causes skin irritation. Serious eye damage/irritation Causes serious eye irritation. Respiratory or skin sensitisation May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. Additional toxicological information: CMR effects (carcinogenicity, 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 May cause respiratory irritation. STOT-repeated exposure May cause damage to organs through prolonged or repeated exposure. Aspiration hazard Based on available data, the classification criteria are not met.</p>

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

CAS: 9016-87-9 diphenylmethanediisocyanate, isomers and homologues
LC0/96 h >1,000 mg/L (brachydanio rerio) EC50/24 h >1,000 mg/L (daphnia magna)
CAS: 1244733-77-4 tris(2-chloro-1-methylethyl)phosphate
LC50/96 h 51 mg/L (pimephales promelas)
CAS: 9082-00-2 Ethoxylated/propoxylated glycerol
LC50/48 h >100 mg/L (brachydanio rerio) EC50/48 h >100 mg/L (daphnia magna) EC50/72 h >1,000 mg/L (scenedesmus capricornutum)
12.2 Persistence and degradability No further relevant information available.

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<p>Other information: The product is not easily biodegradable.</p> <p>12.3 Bioaccumulative potential No further relevant information available.</p> <p>12.4 Mobility in soil No further relevant information available.</p> <p>Ecotoxicological effects:</p> <p>CAS: 9016-87-9 diphenylmethanediisocyanate, isomers and homologues NOEC/21 d >10 mg/L (daphnia magna)</p> <p>Other information:</p> <p>This product contains no substances in Annex I to Directive EC 1005/2009 concerning ozone depleting substances</p> <p>12.5 Results of PBT and vPvB assessment</p> <p>PBT: Not applicable. vPvB: Not applicable.</p> <p>12.6 Other adverse effects No further relevant information available.</p>

<p>SECTION 13: Disposal considerations</p> <p>13.1 Waste treatment methods</p> <p>Recommendation</p> <p>Must not be disposed together with household garbage. Do not allow product to reach sewage system.</p> <p>Disposal must be made according to official regulations. Do not pierce or burn, even after use.</p>

European waste catalogue

16 05 04*	gases in pressure containers (including halons) containing hazardous substances
08 05 01*	waste isocyanates
HP3	Flammable
HP4	Irritant - skin irritation and eye damage
HP5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
HP6	Acute Toxicity
HP7	Carcinogenic
HP13	Sensitising



Uncleaned packaging:

Recommendation: Dispose of packaging according to regulations on the disposal of packaging's.

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SECTION 14: Transport information

14.1 UN-Number ADR, IMDG, IATA UN1950
14.2 UN proper shipping name ADR 1950 AEROSOLS IMDG, IATA AEROSOLS
<p>14.3 Transport hazard class(es) ADR</p>  <p>Class 2 5F Gases. Label 2.1</p>
<p>IMDG, IATA</p>  <p>Class 2 Gases. Label 2.1</p>
<p>14.4 Packing group ADR, IMDG, IATA Void</p>
<p>14.5 Environmental hazards: Marine pollutant: No</p>
<p>For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS:</p>

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable.

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Transport/Additional information:

ADR

Limited quantities (LQ) 1L

Excepted quantities (EQ) Code: E0

Not permitted as Excepted Quantity

Transport category 2

Tunnel restriction code D

IMDG

Limited quantities (LQ) 1L

Excepted quantities (EQ) Code: E0

Not permitted as Excepted Quantity

UN "Model Regulation: UN 1950 AEROSOLS, 2.1

SECTION 15: Regulatory information

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

"EU-CLP" Regulation (EC) No 1272/2008 (OJ L 353, 31.12.2008, p.1)

"EU-REACH" Regulation (EC) No 1907/2006 (OJ L 396, 30.12.2006, p.1, with subsequent amendments)

COMMISSION REGULATION (EU) 2020/878 of 18 June 2020.

75/324/EEC relating to aerosol dispensers

HSE EH40/2005 Workplace Exposure Limits (as amended)

Guidance on the classification and assessment of waste | Technical Guidance WM3 (1st edition 2015)

"GB-CLP" The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)

(Amendment etc.) (EU Exit) Regulations 2019

"UK-REACH" The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020

Directive 2012/18/EU

Qualifying quantity (tonnes) for the application of lower-tier requirements 150 t

Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t

National regulations:

Information about limitation of use:

Employment restrictions concerning juveniles must be observed.

Employment restrictions concerning pregnant and lactating women must be observed.

Other regulations, limitations and prohibitive regulations No further relevant information available.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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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

H220 Extremely flammable gas.

H280 Contains gas under pressure; may explode if heated.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

H373 May cause damage to organs through prolonged or repeated exposure.

Department issuing SDS:

Prepared and verified in accordance with "REACH" Regulation (EC) No 1907/2006, Annex II, Part A,
0.2.3.

Abbreviations and acronyms:

ADR: Accord relatif au transport international 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)

VOC: Volatile Organic Compounds (USA, EU)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Gas 1A: Flammable gases – Category 1A

Aerosol 1: Aerosols – Category 1

Press. Gas (Comp.): Gases under pressure – Compressed gas

Acute Tox. 4: Acute toxicity – Category 4

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



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Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Resp. Sens. 1: Respiratory sensitisation – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
Carc. 2: Carcinogenicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
*** Data compared to the previous version altered.**