

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

1.1. Product identifier

Product form : Article
Product name : Blyscan sGAG Isolation & Concentration pack
Type of product : Laboratory testing kit containing dyes, reagents, standards, etc.

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

Relevant identified uses

Main use category : Professional use
Use of the substance/mixture : Purification of sGAG from liquid samples for analysis with the Blyscan sGAG assay kit

Uses advised against

Restrictions on use : Use only for intended applications.

1.3. Details of the supplier of the safety data sheet

Biocolor Ltd
Catalyst Concourse Building 2
20 Queens Road
Titanic Quarter
BT3 9DT Belfast
United Kingdom
T +44 (0) 2893 350 258
info@biocolor.co.uk, www.biocolor.co.uk

1.4. Emergency telephone number

Emergency number : +44 (0) 2893 350 258 (Mon-Fri 08:30-16:30)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Not classified

Adverse physicochemical, human health and environmental effects

None under normal use.

2.2. Label elements

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

EUH-statements : EUH210 - Safety data sheet available on request.

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

Component

Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	citric acid (77-92-9)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	citric acid (77-92-9)

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SECTION 3: Composition/information on ingredients

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Lithium Chloride	CAS-No.: 7447-41-8 EC-No.: 231-212-3	≤ 10	Acute Tox. 4 (Oral), H302 (ATE=526 mg/kg bodyweight) Skin Irrit. 2, H315 Eye Irrit. 2, H319
citric acid	CAS-No.: 77-92-9 EC-No.: 201-069-1 EC Index-No.: 607-750-00-3 REACH registration No.: 01-2119457026-42	≤ 5	Eye Irrit. 2, H319 STOT SE 3, H335

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Get medical advice/attention if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms, call a doctor.
First-aid measures after skin contact	: Take off contaminated clothing and wash it before reuse. Gently wash with plenty of soap and water. If symptoms persist call a doctor.
First-aid measures after eye contact	: Remove contact lenses, if present and easy to do. Continue rinsing. In case of contact, immediately rinse eyes with plenty of water for at least 15 minutes. If symptoms persist call a doctor.
First-aid measures after ingestion	: If swallowed: rinse mouth. Do NOT induce vomiting. Drink plenty of water. Get medical advice/attention if you feel unwell.

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

Symptoms/effects after inhalation	: None.
Symptoms/effects after skin contact	: None.
Symptoms/effects after eye contact	: None.
Symptoms/effects after ingestion	: None.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Use extinguishing agent suitable for surrounding fire. Dry chemical, CO ₂ , or water spray or regular foam.
Unsuitable extinguishing media	: None.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: On combustion, forms: carbon oxides (CO and CO ₂).
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5.3. Advice for firefighters

Firefighting instructions	: Do not allow run-off from fire-fighting to enter drains or water courses.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

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Other information : On combustion, forms: carbon oxides (CO and CO₂).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid contact with skin and eyes.

For non-emergency personnel

Protective equipment : For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : No action shall be taken without appropriate training or involving any personal risk. Do not get in eyes, on skin, or on clothing.

For emergency responders

Protective equipment : Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Wear personal protective equipment. Stop leak if safe to do so. Ventilate area. Clear up spills immediately and dispose of waste safely. Follow precautions for safe handling described in this safety data sheet. Always wash hands after handling the product.

6.2. Environmental precautions

Avoid release to the environment. Do not allow to enter drains or water courses.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Contain or absorb spilled liquid with earth or other absorbent material. After cleaning, flush traces away with water.

Other information : Dispose in a safe manner in accordance with local/national regulations.

6.4. Reference to other sections

SECTION 8. SECTION 11. SECTION 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes. Keep out of reach of children.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Take off immediately all contaminated clothing and wash it before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep container tightly closed. Keep cool.

Incompatible products : Keep away from food, drink and animal feedingstuffs.

7.3. Specific end use(s)

Laboratory chemicals. Purification of sGAG from liquid samples for analysis with the Blyscan sGAG assay kit.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNEL and PNEC

citric acid (77-92-9)

PNEC (Water)

PNEC aqua (freshwater)	440 µg/L
PNEC aqua (marine water)	44 µg/L

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citric acid (77-92-9)

PNEC (Sediment)

PNEC sediment (freshwater)	34.6 mg/kg dwt
PNEC sediment (marine water)	3.46 mg/kg dwt

PNEC (Soil)

PNEC soil	33.1 mg/kg dwt
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PNEC (STP)

PNEC sewage treatment plant	1 µg/L
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8.2. Exposure controls

Personal protection equipment

Personal protective equipment:

Safety glasses.

Personal protective equipment symbol(s):



Eye and face protection

Eye protection:

ISO 16321-1

Skin protection

Hand protection:

In case of repeated or prolonged contact wear gloves. ISO 374-1

Respiratory protection

Respiratory protection:

No respiratory protection needed under normal use conditions

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless.
Appearance	: Clear.
Odour	: None.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: > 100 °C
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 4 – 6
Viscosity, kinematic	: Not available
Solubility	: Not available
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: Not available

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Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

None.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

None under normal use.

10.4. Conditions to avoid

Keep away from heat.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

On combustion, forms: carbon oxides (CO and CO₂).

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

citric acid (77-92-9)	
LD50 oral	11700 mg/kg bodyweight
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LD50 dermal	> 2000 mg/kg bodyweight
Lithium Chloride (7447-41-8)	
LD50 oral rat	526 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat	> 5.57 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EU Method B.2 (Acute Toxicity (Inhalation)), Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity)
LC50 Inhalation - Rat (Dust/Mist)	> 5.57 mg/l/4h

Skin corrosion/irritation	: Not classified pH: 4 – 6
Serious eye damage/irritation	: Not classified pH: 4 – 6
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified

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Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified

citric acid (77-92-9)

STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Not classified

citric acid (77-92-9)

LOAEL (oral, rat, 90 days)	8000 mg/kg bodyweight Animal: rat
NOAEL (oral, rat, 90 days)	4000 mg/kg bodyweight Animal: rat

Lithium Chloride (7447-41-8)

NOAEL (oral, rat, 90 days)	84.8 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 452 (Chronic Toxicity Studies)
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Aspiration hazard	: Not classified
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11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

citric acid (77-92-9)

LC50 - Fish [1]	> 100 mg/l
EC50 - Other aquatic organisms [1]	85 mg/l waterflea

Lithium Chloride (7447-41-8)

LC50 - Fish [1]	158 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	249 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 400 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	112 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
LOEC (chronic)	2.53 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	1.7 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	17.35 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) Duration: '34 d'

12.2. Persistence and degradability

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Persistence and degradability	Not readily biodegradable.
Biodegradation	0 %

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citric acid (77-92-9)

Persistence and degradability	Not rapidly degradable
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Lithium Chloride (7447-41-8)

Persistence and degradability	Rapidly degradable
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12.3. Bioaccumulative potential

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Bioaccumulative potential	There is no bioaccumulation.
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citric acid (77-92-9)

Partition coefficient n-octanol/water (Log Pow)	-1.72
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12.4. Mobility in soil

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Ecology - soil	Soluble in water. Expected to be highly mobile in soil.
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12.5. Results of PBT and vPvB assessment

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This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

Component

Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	citric acid (77-92-9)
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Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	citric acid (77-92-9)
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12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Flush into sewer with plenty of water.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
Not regulated for transport				
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated

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ADR	IMDG	IATA	ADN	RID
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

EU-Regulations

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (2024/590)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 2024/590 on substances that deplete the ozone layer)

Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

Explosives Precursors Regulation (EU 2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

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Drug Precursors Regulation (EC 273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

For the following substances of this mixture a chemical safety assessment has been carried out:

citric acid

Lithium Chloride

SECTION 16: Other information

Indication of changes

Section	Changed item	Comments
	Supersedes	Modified
	Revision date	Modified
	Generic OEL data	Update Refreshed

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS-No.	Chemical Abstracts Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
EC-No.	European Community number
IATA	International Air Transport Association
IBC code	International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IMO)
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
NOAEL	No-Observed Adverse Effect Level
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
vPvB	Very Persistent and Very Bioaccumulative

Data sources : ECHA (European Chemicals Agency). Supplier's safety documents.

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2

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Full text of H- and EUH-statements:	
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
EUH210	Safety data sheet available on request.

Safety Data Sheet (SDS), EU, 2025

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.