

Safety Data Sheet

according to Regulation (EC) No. 1907/2006

Safety Data Sheet (SDS) cover page for:

FEDGAS pH 4.5 Buffer Concentrate

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Language	English

Email: sds@biorelevant.com

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

1.1 Component identifier

Name	FEDGAS pH 4.5 Buffer Concentrate
Description	Liquid concentrate for preparation of FEDGAS pH 4.5 buffer
Code	FDG-BUF4.5
Type	Mixture
Manufacturer	Biorelevant

Other means of identification

Clear aqueous solution in translucent HDPE bottle.

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

Laboratory reagents.

1.3 Details of the supplier of the safety data sheet

Name	Biorelevant
Address	QMB Innovation Centre 42 New Road London, E1 2AX United Kingdom
Telephone	+44 (0)20 77905328
Email	sds@biorelevant.com

1.4 Emergency telephone number

+44 (0)20 7790 5328

SECTION 2: Hazards identification

General hazard statement

Substances are not classified as dangerous according to European Union legislation.

2.1 Classification of the substances or mixtures

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

H319	Eye irritation
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2.2 Label elements

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

Hazard pictograms



Signal word

Irritant

Hazard statement(s)

H319	Eye irritation
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Precautionary statement(s)

P234	Keep only in original container
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2.3 Other hazards

This 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 Substance

Not applicable.

3.2 Mixtures

Hazardous Ingredient:

Citric acid

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Concentration	1-30 % weight in aqueous solution
EC no.	201-069-1
CAS no.	77-92-9
H319	Eye irritation

- According to the majority of notifications provided by companies to ECHA in CLP notifications no hazards have been classified for the other ingredients.

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes	In case of accident or if you feel unwell, seek medical advice immediately (show SDS where possible).
In case of inhalation	Move into fresh air. If symptoms persist, call a physician.
In case of skin contact	Remove contaminated clothing and wash it before reuse. Wash with plenty of water for at least 15 minutes. If irritation develops or persists, call a physician.
In case of eye contact	Remove contact lenses. Protect unharmed eye. Rinse cautiously with water for at least 15 minutes. If eye irritation persists, call a physician.
In case of ingestion	If accidentally ingested, rinse mouth with water. Give plenty of water to drink. If vomiting occurs give further water, call a physician.
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in Section 11.

4.3 Indication of any immediate medical attention and special treatment needed

Note to physician: treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

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

5.2 Special hazards arising from the substance or mixture

Not combustible. Ambient fire may liberate hazardous vapours. Fire may cause evolution of: Carbon oxides, Sodium oxides.

5.3 Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment to prevent contamination of skin, eyes and personal clothing. Ensure adequate ventilation. Remove ignition sources.

Advice for non-emergency personnel: Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment see Section 8.

6.2 Environmental precautions

No special environmental precautions required.

6.3 Methods and material for containment and cleaning up

Stop the spill if it can be done safely. Collect the material with mechanic means, wearing appropriate protective equipment, and store in a clean and appropriate waste disposal container. Wash the area with water.

6.4 Reference to other Sections

See Section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Wear personal protective equipment. Ensure adequate ventilation. Avoid breathing vapour, mist, or gas. Avoid contact with skin and eyes. Avoid ingestion and inhalation. Change contaminated clothing. Wash hands after working with mixtures. For precautions see Section 2.

7.2 Conditions for safe storage, including any incompatibilities

Store container tightly closed in a dry and well-ventilated place at room temperature. Do not transfer out of original container. Containers which are opened must be carefully resealed and kept upright to prevent leakage. After opening store at room temperature.

7.3 Specific end use(s)

Laboratory reagents.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National occupational exposure limits have not been developed for this material.

8.2 Exposure controls

Personal protection equipment:

Eye and face protection

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

Skin protection

Wear appropriate protective gloves to prevent skin exposure (minimum requirement).

Body protection

Wear appropriate personal protective equipment.

Respiratory protection

Not required under normal use conditions.

Thermal hazards

No data available.

Environmental exposure controls

Do not allow material to contaminate ground water system.

Appropriate engineering controls

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

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Clear aqueous solution
Odour	Odourless
Odour threshold	No information available
pH	No information available

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Melting point / freezing point	No information available
Initial boiling point and boiling range	No information available
Flash point	No information available
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Upper/lower flammability limits	No information available
Upper/lower explosive limits	No information available
Vapour pressure	No information available
Vapour density	No information available
Relative density	No information available
Solubility	Miscible with water
Partition coefficient: n-octanol/water	No information available
Auto-ignition temperature	No information available
Decomposition temperature	No information available
Viscosity	No information available
Explosive properties	No information available
Oxidising properties	No information available

9.2 Other information

No other relevant information to be added to Section 9.

SECTION 10: Stability and reactivity

10.1 Reactivity

None under normal use conditions.

10.2 Chemical stability

Stable under normal storage conditions.

10.3 Possibility of hazardous reactions

None under normal use conditions.

10.4 Conditions to avoid

Incompatible products. Excess heat: do not expose to heat or ignition sources.

10.5 Incompatible materials

Citric acid: Oxidizing agents, Bases, Reducing agents, Nitrates.

10.6 Hazardous decomposition products

In the 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/irritation

Causes eye irritation.

Respiratory or skin sensitization

May cause irritation to the respiratory system. No skin sensitisation data available.

Germ cell mutagenicity

No data available.

Carcinogenicity

No data available.

Reproductive toxicity

No data available.

Summary of evaluation of the CMR properties

No data available.

STOT-single exposure

No data available.

STOT-repeated exposure

No data available.

Aspiration hazard

No data available.

Additional information

When the product is handled appropriately, hazardous effects are unlikely to occur.

SECTION 12: Ecological information

12.1 Toxicity

Contains no substances known to be hazardous to the environment or that are not degradable in wastewater treatment plants.

12.2 Persistence and degradability

Highly soluble in water: persistence is unlikely.

12.3 Bio-accumulative potential

No data available for assessment.

12.4 Mobility in soil

The product is water soluble and may spread in water systems. Will likely be mobile in the environment due to its water solubility and thus mobile in soils.

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

12.6 Other adverse effects

No other adverse effects are expected.

12.7 Other information

No other relevant information to be added to Section 12.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Disposal of the product

Any disposal practice must be in compliance with all local and national laws and regulations. Send to controlled landfills or authorized incinerators.

Disposal of contaminated packaging

Dispose of as unused product.

Waste treatment

Do not dispose of waste into sewer.

Sewage disposal

Do not dispose of waste into sewer.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1 - 14.6

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Not regulated as a dangerous good.

Inland waterway transport (ADN)

14.1 - 14.6

Not regulated as a dangerous good.

Air transport (IATA)

14.1 - 14.6

Not regulated as a dangerous good.

Sea transport (IMDG)

14.1 - 14.6

Not regulated as a dangerous good.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

This substance is not listed in the Annex I of Directive 96/82/CE.

15.2 Chemical Safety Assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

Full text of hazard statements for FEDGAS pH 4.5 (Mid) Buffer Concentrate referenced in Section 2

H319

Causes eye irritation

This SDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular how to safely handle and use the product in the workplace. Since we cannot control the conditions under which the product may be used, each user must review the SDS prior to usage in the context of the intended use in order to handle and employ the product in their workplace. If clarification is needed to ensure an appropriate assessment can be made, the user should contact us.

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