

SAFETY DATA SHEET

(Reach Regulation (EC) NO 1907/2006 – 453/2010)

SECTION 1: Identification of the Substance/ Mixture and of the Company/ Undertaking

1.1. Product identifier

- Product name: **Buffered Hypotonic Solution**
- Product code: **GGS-JL-006/a**
- Pack size: **Supplied to make 250mls working solution**
- GTIN-13: **5060174130090**
- GMDN: **30621 'Chromosome Culture Kit'**
- REACH: A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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

Recommended Use: In Vitro Diagnostics
Identified uses: Laboratory chemicals

Buffered Hypotonic Solution

Is a hypotonic solution developed for bone marrow specimens. It has been found to achieve good metaphase swelling (spreading) from a wide range of sample types and significantly increases the number of useful metaphases in leukaemic bone marrow cultures when compared to the standard 0.075M KCL hypotonic. It contains 0.4% KCL with HEPES.

1.3. Details of the supplier of the safety data sheet

- Registered company name: Genial Helix Limited
- Address: Genial Helix, Evans Business Centre, Minerva Avenue, Off Sovereign Way, Chester, Flintshire, CH1 4QL, U.K.
- Telephone: +44 (0)1244 757 155
- Email: info@genialhelix.com
- Website: www.genialhelix.com

1.4. Emergency telephone number: +44 (0)1244 757 155

- Emergency Response Organisation: Genial Helix Limited | www.genialhelix.com

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture in compliance with EC regulation No. 1272/2008 and its amendments.

Not a hazardous substance or mixture.

This substance is not classified as dangerous according to Directive 67/548/EEC

2.2. Label elements

The 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

Contains	KCL HEPES
Synonyms:	4-(2-Hydroxyethyl)piperazine-1-ethanesulfonic acid

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

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

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: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

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

5.2 Special hazards arising from the substance or mixture

Hydrogen chloride gas, Potassium oxides, Carbon oxides, Nitrogen oxides (NOx), Sulphur 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

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containing and cleaning up

Pick up and arrange disposal without creating dust. Sweep up with a 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 formation of dust.
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 prepared product at 4°C in a refrigerator in a suitable container. Keep lid tightly closed.
Powered product can be stored in a cool place for up to 12 months. Keep container tightly closed in a dry and well-ventilated place.

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

Handle in accordance with good 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 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

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 dust 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 exposures

Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance	Form: Solid (white)
b) Odour	Odourless
c) Odour Threshold	No data available
d) pH	7.4 (in liquid form)
e) Melting point/ freezing Point	234°C
f) Initial boiling point and boiling range	No data available
g) Flash point	N/A
h) Evaporation rate	N/A
i) Flammability (liquid)	Non-Flammable
j) Upper/lower flammability or explosive limits	N/A
k) Vapour pressure	As of water (0.30 atm)
l) Vapour density	No data available
m) Relative density	No data available
n) Water solubility	Soluble
o) Partition coefficient: noctanol/water	No data available
p) Auto-ignition temperature	N/A
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	Nil
t) Oxidizing properties	Nil

9.2 Other safety information

No data available

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

Exposure to moisture may effect product quality

10.5 Incompatible materials

Strong acids. 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
No data available

Skin corrosion/ irritation
No data available

Serious eye damage/ eye irritation
No eye irritation

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
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

Additional information
RTECS: TS8050000
RTECS: TL6809000

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

12.6 Other adverse effects
No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

Use approved government contractor.

Observe all International, National, State and Local environmental laws.

Contaminated packaging

Dispose of as unused product

SECTION 14: Transport information

Limited Quantity – 0.01% per 1ml vial

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 user

No data available

SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006

15.1 Safety, health and environmental regulations/ legislation specific for the substances 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

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Genial Helix Ltd and its Affiliates will not be held liable for any damage resulting from handling or from contact with the above product.