

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: **Metaphase Arresting Solution**
- Product code: **GGS-JL-008**
- Pack size: **Supplied to make up 100mls**
- GTIN-13: **5060174130076**
- 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

Metaphase Arresting Solution

Is a mixture of colchicine/ vinblastine sulphate dissolved in PBS, both of these compounds inhibit the formation of mitotic spindles and are used to increase the percentage of metaphase cells for chromosome studies.

Vinblastine sulphate has been found to be more effective against bone marrows, difficult tumours and problematic tissues with low mitotic indexes, and where colchicine/ colcemid appears to be ineffective.

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.

- Acute toxicity, Oral (Category 4), H302
- Acute toxicity, Inhalation (Category 1), H330
- Skin Irritation (Category 2), H315
- Serious Eye Damage (Category 1), H318
- Specific target organ toxicity – single exposure (Category 3), H335
- Germ cell mutagenicity (Category 1B), H340

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

Classification according to EU Directives 67/548/EEC or 1999/45/EC

		R46
T+, Xi	Very Toxic, Irritant	R26/28, R41
Xn	Harmful	R36/37/38 R41

For the full text of the R-phrases mentioned in this Section, see Section 16.

2.2. Label elements

Labelling in compliance with EC regulation No. 1272/2008 and its amendments

Pictograms:



Single Word:

Danger

Hazard statement(s)

H300 + H330	Fatal if swallowed or if inhaled
H315	Causes skin irritation
H318	Causes serious eye damage
H335	May cause respiratory irritation
H340	May cause genetic defects

Precautionary statement(s)

P201	Obtain special instructions before use
P260	Do not breathe dust/ fumes/ gas/ mist/ vapours/ spray
P264	Wash hands thoroughly after handling
P280	Wear protective gloves/ eye protection/ face protection
P284	Wear respiratory protection
301 + P310	IF SWALLOWED: immediately call a POISON CENTRE or doctor/ physician
P305 + P351 + P338	IF IN EYES: Rinse immediately with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplement Hazard Statements

None

Restricted to professional users.

According to European Directive 67/548/EEC as amended/
Hazard symbol(s)

Xn Harmful



R-phrase(s)

R22	Harmful if swallowed
R37/38	Irritating to respiratory system and skin
R41	Risk of serious damage to eyes

S-phrase(s)

S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/39	Wear suitable protective clothing and eye/face protection

2.3. Other Hazards

None

SECTION 3: Composition/information on ingredients

3.1. Substances

Synonyms: Protease from Bacillus polymyxa
Clostridiopeptidase A

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	By %
Colchicine		50% powder in supplied vial
CAS No: 64-86-8 EC No: 200-598-5	Acute Tox. 2; Acute Tox. 1; Eye Dam. 1; Muta, 1B; H300 + H330, H318, H340	-----
Vinblastine Sulfate		10% powder in supplied vial
CAS No: 143-67-9 EC No: 205-606-0	Acute Tox. 4; Skin Irrit. 2; Eye Dam. 1; STOT SE 3; H302, H315, H318, H335.	-----

Hazardous ingredients according to Directive 1999/45/EC

Component	Classification
Colchicine	
CAS No: 64-86-8 EC No: 200-598-5	T+, Xi, Mut.Cat.2, R26/28 – R41 – R46
Vinblastine Sulfate	
CAS No: 143-67-9 EC No: 205-606-0	Xn, R22 – R37/38 – R41

For the full text of the H-Statements and R-Phrases mentioned in the 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 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 victim immediately to hospital. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a 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: 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

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**
Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personnel 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 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 or eyes. Avoid formation of dust and aerosols. Avoid exposure – obtain special instructions before use. 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 at 4°C for no more than 12 months. Never heat or freeze. Protect from UV light.
- 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. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses. Use equipment for eye protection tested and approval 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.

Full contact
Material: Nitrile rubber
Minimum layer thickness: 0.11mm
Break through time: 480 min

Splash contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min

Body protection

Complete suit protection 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 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	5.9 (in liquid form)
e) Melting point/ freezing Point	150-160°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	No data available
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

Light

10.5 Incompatible materials

Strong oxidising 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 – Mouse – 5.886 mg/kg

Skin corrosion/ irritation

No data available

Serious eye damage/ eye irritation

Eyes – Rabbit

Result: Severe eye irritation – 3h

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

In vivo tests showed mutagenic effects

Carcinogenicity

IARC: 3 – Group 3: Not classified as to its carcinogenicity to humans (Vinblastine sulphate)

Reproductive toxicity

Some evidence of adverse effects on sexual function and fertility, based on animal experiments

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: GH0700000

Vomiting, Diarrhoea. Kidney – Irregularities – Based on Human Evidence (Acetone)

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

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

Use approved government contractor.

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

Contaminated packaging

Dispose of as unused product

SECTION 14: Transport information

14.1 UN number

ADR/RID: 1544

IMDG: 1544

IATA: 1544

14.2 UN proper shipping name

ADR/RID: ALKALOIDS, SOLID, N.O.S. (Colchicine)

IMDG: ALKALOIDS, SOLID, N.O.S. (Colchicine)

IATA: Alkaloids, solid, n.o.s. (Colchicine)

14.3 Transport hazard class(es)

ADR/RID: 6.1

IMDG: 6.1

IATA: 6.1

14.4 Packaging group

ADR/RID: I

IMDG: I

IATA: I

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

Full text of H-Statements referred to under sections 2 and 3.

Acute Tox.	Acute Toxicity
Eye Dam.	Serious eye damage
H300	Fatal if swallowed
H300 + H330	Fatal if swallowed or if inhaled
H315	Causes skin irritation
H318	Causes serious eye damage
H330	Fatal if inhaled
H335	May cause respiratory irritation
H340	May cause genetic defects
Resp. Sens.	Respiratory sensitisation
Skin Irrit.	Skin irritation
Muta	Germ cell mutagenicity
STOT SE	Specific target organ toxicity – single exposure

Full text of R-phrases referred to under sections 2 and 3

T+	Very toxic
Xn	Harmful
R22	Harmful if swallowed
R26/28	Very toxic by inhalation and if swallowed
R37/38	Irritating to respiratory system and skin
R41	Risk of serious damage to eyes
R46	May cause heritable genetic damage

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.