

**SAFETY DATA SHEET**

(Reach Regulation (EC) NO 1907/2006)

**SECTION 1: Identification of the Substance/ Mixture and of the Company/ Undertaking****1.1. Product identifier**

- Product name: **Metaphase Arresting Solution**
- Product code: **GGS-JL008**
- Pack size: **Supplied to make up 100mls**
- 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**

Identified uses: Laboratory chemicals, Manufacture of substances

**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 relatively ineffective.

**1.3. Details of the supplier of the safety data sheet**

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

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

- Emergency Response Organisation: Genial Helix Limited | [www.genialhelix.com](http://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.

**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

H341	Suspected of causing genetic defects
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
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
P301 + P310 + P312 + P330	If SWALLOWED: immediately call a POISON CENTRE or doctor/ physician
P308 + P313	If exposed or concerned: Get medical advice/ attention.
P305 + P351 + P383	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
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Restricted to professional users.

#### Reduced Labelling ( ≤ 125ml)

Pictograms:



Single Word:	Danger
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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
H341	Suspected of causing genetic defects
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.

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
P301 + P310 + P312 + P330	If SWALLOWED: immediately call a POISON CENTRE or doctor/ physician
P308 + P313	If exposed or concerned: Get medical advice/ attention.
P305 + P351 + P383	IF IN EYES: Rinse immediately with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplement Hazard	None
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#### 2.3. Other Hazards

None

**SECTION 3: Composition/information on ingredients****3.1. Substances****Hazardous ingredients according to Regulation (EC) No 1272/2008**

Component	Classification	Concentration %
<b>Colchicine</b>		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	-----
<b>Vinblastine Sulfate</b>		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.	-----

For the full text of the H-Statements 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.

**Unsuitable extinguishing media**

For this substance/ mixture no limitations or extinguishing agents are given

**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.

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**SECTION 7: Handling and storage****7.1 Precautions for safe handling****Advice on safe handling**

Work under hood. Do not inhale substance/ mixture. Avoid contact with skin or eyes. Avoid formation of dust and aerosols. Avoid exposure – obtain special instructions before use.

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at end of workday.

For precautions see section 2.2.

**7.2 Conditions for safe storage, including any incompatibilities****Storage conditions**

Store at 4°C for no more than 12 months. Never heat or freeze. Protect from UV light.

**Storage class**

Storage class (TRGS 510): 6.1A: Combustible, acute toxic Cat. 1 and 2 / very toxic, hazardous material.

**7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

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**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

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**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

LD50 Oral – Rat – 26 mg/kg

Remarks: (RTECS)

Inhalation: No data available

Dermal: No data available

**Skin corrosion/ irritation**

No data available

**Serious eye damage/ eye irritation**

No data available

**Respiratory or skin sensitisation**

No data available

**Germ cell mutagenicity**

May cause genetic defects

Test Type: Mutagenicity (mammal cell test): chromosome aberration

Test system: Human lymphocytes

Metabolic activation: without metabolic activity

Result: positive

Remarks: (ECHA)

**Carcinogenicity**

No data available

**Reproductive toxicity**

Suspected of damaging the unborn child

Suspected of damaging fertility

**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**

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.

This substance should be handled with particular care.

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**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**

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.

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

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

**Authorisation and/ or restrictions on use**

REACH – Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Colchicine

**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.**

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

**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.