

Safety data sheet

according to 1907/2006/EC, Article 31

Date Printed 17.02.2022


Version number 1


Revision Date 09.08.2019

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

- **1.1 Product identifier**
- **Trade name: Muscovite mica blocks and splittings**
- **Article number:** AGG250-1, -2, -3, -4, -5
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
 Cleaved mica is traditionally used in electron microscopy for the production of carbon support films, cell growing and thin film coating research. Ruby muscovite mica surfaces are also suitable as substrates for high resolution atomic force microscopy studies of DNA and DNA-protein complexes.
- **Application of the substance / the preparation:**
 Ruby muscovite is a hard material with excellent cleaving properties. It has a minimal tendency to cracking and splits more easily into thin films along natural cleavage planes.
 The freshly exposed cleaved surface should be used immediately to utilise the clean and even surface.
- **1.3 Details of the supplier of the safety data sheet**
- **Supplier.**
 Agar Scientific Ltd
 Parsonage Lane
 Stansted CM24 8GF
 United Kingdom
 sales@agarscientific.com
 Tel: +44 (0) 1279 813 519
- **Further information obtainable from:** Technical Support
- **1.4 Emergency telephone number:** 24 hours: +44 (0)1856 407333

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
 health hazard

 Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
 The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**

 GHS08
- **Signal word** Danger
- **Hazard-determining components of labelling:**
 Muscovite mica (Potassium Aluminium Silicate)
- **Hazard statements**
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- **Precautionary statements**
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P284 [In case of inadequate ventilation] wear respiratory protection.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.1 Chemical characterisation: Substances**
Non-inflammable, electrical insulator, chemically inert, transparent.
- **3.2 Chemical characterisation: Mixtures**
- **Description:**
Freshly cleaved ruby muscovite mica surfaces are extremely even and flat. They are also quite transparent and free from scratches and contamination.

- **Dangerous components:**

CAS: 12001-26-2	Muscovite mica (Potassium Aluminium Silicate)	95.0%
EINECS: 215-479-3	⚠ Resp. Sens. 1, H334	

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**
The product does not normally contain dust particles in any significant quantities, however one should be aware that DUST, especially fine dust, is always a health hazard. Adverse effects due to improper use or misuse could result in breathing difficulties or damage to eyes. Inhalation is the main hazard as this could cause pneumoconiosis with long term unprotected exposure.
- **After inhalation:**
If DUST inhaled: make sure that person is removed to a dust free area and seek medical attention.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:**
In case of DUST: Rinse with copious amounts of clean water and seek medical advice.
- **After swallowing:** If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
Use fire extinguishing methods suitable to surrounding conditions.
Non inflammable material.
- **5.2 Special hazards arising from the substance or mixture**
No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:** No special measures required.
- **6.3 Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to item 13.

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Ensure adequate ventilation.

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

 · **7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.

 · **Information about fire - and explosion protection:** No special measures required.

 · **7.2 Conditions for safe storage, including any incompatibilities**

 · **Storage:**

 · **Requirements to be met by storerooms and receptacles:** No special requirements.

 · **Information about storage in one common storage facility:** Not required.

 · **Further information about storage conditions:** None.

 · **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

 · **8.1 Control parameters**

 · **Additional information about design of technical facilities:** No further data; see item 7.

 · **Ingredients with limit values that require monitoring at the workplace:**
12001-26-2 Muscovite mica (Potassium Aluminium Silicate)

WEL	Long-term value: 10* 0.8** mg/m ³ *total inhalable **respirable
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 · **Additional information:** The lists valid during the making were used as basis.

 · **8.2 Exposure controls**

 · **Personal protective equipment:**

 · **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

 · **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

 · **Protection of hands:**


Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Not required in general.

 · **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

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- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Not required.

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

- | | |
|---------------------------|-----------------|
| · Appearance: | Solid sheets. |
| · Form: | Crystalline |
| · Colour: | Not determined. |
| · Odour: | Odourless |
| · Odour threshold: | Not determined. |

- | | |
|--------------------|-----------------|
| · pH-value: | Not applicable. |
|--------------------|-----------------|

· Change in condition

- | | |
|---|---------------|
| Melting point/freezing point: | 1,500 °C |
| Initial boiling point and boiling range: | Undetermined. |

- | | |
|-----------------------|-----------------|
| · Flash point: | Not applicable. |
|-----------------------|-----------------|

- | | |
|-------------------------------------|-----------------|
| · Flammability (solid, gas): | Not determined. |
|-------------------------------------|-----------------|

- | | |
|-------------------------------------|-----------------|
| · Decomposition temperature: | Not determined. |
|-------------------------------------|-----------------|

- | | |
|-------------------------------------|------------------------------|
| · Auto-ignition temperature: | Product is not selfigniting. |
|-------------------------------------|------------------------------|

- | | |
|--------------------------------|---|
| · Explosive properties: | Product does not present an explosion hazard. |
|--------------------------------|---|

· Explosion limits:

- | | |
|---------------|-----------------|
| Lower: | Not determined. |
| Upper: | Not determined. |

- | | |
|---------------------------|-----------------|
| · Vapour pressure: | Not applicable. |
|---------------------------|-----------------|

- | | |
|----------------------------|---------------------------|
| · Density at 20 °C: | 2.6-3.2 g/cm ³ |
| · Relative density | Not determined. |
| · Vapour density | Not applicable. |
| · Evaporation rate | Not applicable. |

· Solubility in / Miscibility with water:

Insoluble.

- | | |
|--|-----------------|
| · Partition coefficient: n-octanol/water: | Not determined. |
|--|-----------------|

· Viscosity:

- | | |
|-------------------|-----------------|
| Dynamic: | Not applicable. |
| Kinematic: | Not applicable. |

· Solvent content:

- | | |
|------------------------|---------|
| Solids content: | 100.0 % |
|------------------------|---------|

· 9.2 Other information

Refractive index: 1.55-1.62.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** Non-reactive.
- **10.2 Chemical stability** Stable.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.

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- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**

12001-26-2 Muscovite mica (Potassium Aluminium Silicate)

Oral	LD50	>5,000 mg/kg (rat)
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- **Specific symptoms in biological assay:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation**
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Repeated significant inhalation of dust may cause pneumoconiosis.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** Not biodegradable and non-volatile.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Not hazardous for water.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
No special requirements.
- **Recommendation:** Disposal must be made according to official regulations.

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SECTION 14: Transport information

<ul style="list-style-type: none"> · 14.1 UN-Number · ADR, IMDG, IATA 	Void
<ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR, IMDG, IATA 	Void
<ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR, IMDG, IATA · Class 	Void
<ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG, IATA 	Void
<ul style="list-style-type: none"> · 14.5 Environmental hazards: · Marine pollutant: 	No
<ul style="list-style-type: none"> · 14.6 Special precautions for user 	Not applicable.
<ul style="list-style-type: none"> · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code 	Not applicable.
<ul style="list-style-type: none"> · UN "Model Regulation": 	Void

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge and should assist the user with the safe handling of this material when properly applied. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- **Department issuing SDS:** Sales department
- **Contact:**
sales@agarscientific.com
Tel: +44 (0) 1279 813 519
- **Abbreviations and acronyms:**
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Resp. Sens. 1: Respiratory sensitisation – Category 1
- *** Data compared to the previous version altered.**