

# Safety data sheet

according to 1907/2006/EC, Article 31

Date Printed 16.02.2022

Version number 1

Revision Date 16.02.2022

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

- **1.1 Product identifier**
- **Trade name: Platinum Blue EM Stain**
- **Article number:** AGR1260C
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the preparation:** No further relevant information available.
- **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**



skull and crossbones

Acute Tox. 2 H300 Fatal if swallowed.



corrosion

Eye Dam. 1 H318 Causes serious eye damage.

- **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**



GHS05 GHS06

- **Signal word** Danger
- **Hazard-determining components of labelling:**  
Platinum derivative
- **Hazard statements**  
H300 Fatal if swallowed.  
H318 Causes serious eye damage.
- **Precautionary statements**  
P101 If medical advice is needed, have product container or label at hand.  
P102 Keep out of reach of children.  
P103 Read carefully and follow all instructions.  
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.  
P321 Specific treatment (see on this label).  
P330 Rinse mouth.

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P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Information concerning particular hazards for human and environment:**

Possible carcinogen, Target Organ Effect, Highly toxic by ingestion, Irritant.

Target Organs: Liver injury may occur. Kidney, Ears, Blood, Peripheral nervous system, Bone marrow, Testes, Female reproductive system.

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

## SECTION 3: Composition/information on ingredients

· **3.2 Chemical characterisation: Mixtures**

· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 15663-27-1	Platinum derivative	☠ Acute Tox. 3, H301; ☠ Eye Dam. 1, H318	5.0%
EINECS: 239-733-8			

· **Additional information:**

For the wording of the listed hazard phrases refer to section 16.

Synonyms IBI Blue Platinum EM Stain

Formula  $Pt_4N_8H_6O_{24}C_{20}$

CAS-No. 15663-27-1

EC-No. 239-733-8

Potential health effects:

Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.

Skin: May be harmful if absorbed through skin. Causes skin irritation.

Eyes: Causes eye irritation.

Ingestion: May be fatal if swallowed.

## SECTION 4: First aid measures

· **4.1 Description of first aid measures**

· **General information:**

Immediately remove any clothing soiled by the product.

In case of irregular breathing or respiratory arrest provide artificial respiration.

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

· **After inhalation:** No adverse effects are anticipated from inhalation.

· **After skin contact:**

Wash with water and soap and rinse thoroughly.

Take victim immediately to hospital. Consult a physician.

· **After eye contact:**

Rinse opened eye for several minutes under running water. Then consult a doctor.

In case of eye contact rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

· **After swallowing:**

Do not induce vomiting; call for medical help immediately.

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**

No further relevant information available.

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- **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.  
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- **5.2 Special hazards arising from the substance or mixture**  
Hazardous decomposition products formed under fire conditions: Nitrogen oxides (NO<sub>x</sub>), Hydrogen chloride gas (HCl).
- **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**  
Wear protective gloves and glasses.  
Wear respiratory protection. Avoid aerosol formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.
- **6.2 Environmental precautions:**  
Do not allow to enter sewers/ surface or ground water.  
Prevent further leakage or spillage if safe to do so.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Use neutralising agent.  
Dispose contaminated material as waste according to item 13.
- **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** Avoid contact with skin and eyes.
- **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:**  
Keep container tightly sealed.  
Keep in a dry and well-ventilated place.
- **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.

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· **Ingredients with limit values that require monitoring at the workplace:**

**15663-27-1 Platinum derivative**

WEL	Long-term value: 0.002 mg/m <sup>3</sup> as Pt; Sen
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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.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

· **Respiratory protection:**

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

· **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

Handle with gloves. Gloves must be inspected prior to use. Use proper glove 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.

· **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.

· **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:**



Tightly sealed goggles

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN166 (EU).

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- **Body protection:**  
Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

## SECTION 9: Physical and chemical properties

### · 9.1 Information on basic physical and chemical properties

#### · General Information

#### · Appearance:

Form: Liquid

Colour: Blue

· Odour: Characteristic

· Odour threshold: Not determined.

· pH-value at 20 °C: 3.5

#### · Change in condition

Melting point/freezing point: 0 °C

Initial boiling point and boiling range: Undetermined.

· Flash point: Not applicable.

· Flammability (solid, gas): Not applicable.

· 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 at 20 °C: 23 hPa

· Density at 20 °C: 1 g/cm<sup>3</sup>

· Relative density: Not determined.

· Vapour density: Not determined.

· Evaporation rate: Not determined.

#### · Solubility in / Miscibility with water:

Not miscible or difficult to mix.

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

#### · Viscosity:

Dynamic: Not determined.

Kinematic: Not determined.

#### · Solvent content:

Water: 95.0 %

VOC (EC) 0.00 %

Solids content: 0.0 %

· 9.2 Other information: No further relevant information available.

## SECTION 10: Stability and reactivity

· 10.1 Reactivity: No further relevant information available.

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- **10.2 Chemical stability**  
Stable under recommended storage conditions (in sealed ampoule up to 2-3 years in amber stored in darkness).
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** Strong oxidising agents.
- **10.6 Hazardous decomposition products:**  
Hazardous decomposition products formed under fire conditions: Nitrogen oxides (NO<sub>x</sub>), Hydrogen chloride gas (HCl).

## SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
  - **Acute toxicity**  
Fatal if swallowed.
- |  |      |                  |
|--|------|------------------|
| · <b>LD/LC50 values relevant for classification:</b> |      |                  |
| Oral   | LD50 | 25.8 mg/kg (rat) |
- **Specific symptoms in biological assay:**
  - **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
  - **Serious eye damage/irritation**  
Causes serious eye damage.
  - **Respiratory or skin sensitisation**  
Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.
  - **Other information (about experimental toxicology):**  
Possible human carcinogen:  
IARC: 2A - Group 2A: Probably carcinogenic to humans (Platinum)  
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.  
NTP: Reasonably anticipated to be a human carcinogen (Platinum)  
OSHA: No component of this product present at level greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
  - **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** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Must not reach sewage water or drainage ditch undiluted or unneutralised.  
Danger to drinking water if even small quantities leak into the ground.

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- **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.
- **Recommendation:**  
Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with afterburner and scrubber.

## SECTION 14: Transport information

<ul style="list-style-type: none"> <li>· <b>14.1 UN-Number</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>	<p style="text-align: right;">UN2810</p>
<ul style="list-style-type: none"> <li>· <b>14.2 UN proper shipping name</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG, IATA</b></li> </ul>	<p style="text-align: right;">2810 TOXIC LIQUID, ORGANIC, N.O.S. solution TOXIC LIQUID, ORGANIC, N.O.S. solution</p>
<ul style="list-style-type: none"> <li>· <b>14.3 Transport hazard class(es)</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>	<div style="text-align: center;">  </div>
<ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	<p style="text-align: right;">6.1 Toxic substances. 6.1</p>
<ul style="list-style-type: none"> <li>· <b>14.4 Packing group</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>	<p style="text-align: right;">II</p>
<ul style="list-style-type: none"> <li>· <b>14.5 Environmental hazards:</b></li> <li>· <b>Marine pollutant:</b></li> </ul>	<p style="text-align: right;">No</p>
<ul style="list-style-type: none"> <li>· <b>14.6 Special precautions for user</b></li> <li>· <b>Stowage Category</b></li> <li>· <b>Stowage Code</b></li> </ul>	<p style="text-align: right;">Warning: Toxic substances. B SW2 Clear of living quarters.</p>
<ul style="list-style-type: none"> <li>· <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b></li> </ul>	<p style="text-align: right;">Not applicable.</p>
<ul style="list-style-type: none"> <li>· <b>UN "Model Regulation":</b></li> </ul>	<p style="text-align: right;">UN 2810 TOXIC LIQUID, ORGANIC, N.O.S. SOLUTION, 6.1, II</p>

## 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.
- **Seveso category** H2 ACUTE TOXIC

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- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t
- **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**

H301 Toxic if swallowed.

H318 Causes serious eye damage.

- **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)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 2: Acute toxicity – Category 2

Acute Tox. 3: Acute toxicity – Category 3

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

- **\* Data compared to the previous version altered.**