SAFETY DATA SHEET
PL-AMS MP AMS Resin

Section 1. Identification

Product identifier : PL-AMS MP AMS Resin

Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Reagents and Standards for Analytical Chemistry Laboratory Use
Resins.
Bottle
PL1464-6749 AMS 0.4 mM/g 75-150 um 1 kg
PL1464-6769 AMS 0.6 mM/g 75-150 um 1 kg
PL1464-6799 AMS 1.0 mM/g 75-150 um 1 kg
PL1464-6689 AMS 2.0 mM/g 150-300 um 1 kg
PL1464-6789 AMS 2.0 mM/g 75-150 um 1 kg
PL1464-9789 PL-AMS 2.0 mM/g 75-150um 3kg
PL1464-4689 AMS 2.0mM/g 150-300um 100g
PL1464-7799 AMS 1.0mM/g 75-150um 5kg

Supplier/Manufacturer : Agilent Technologies, Inc.
5301 Stevens Creek Blvd
Santa Clara, CA 95051, USA
800-227-9770

Emergency telephone number (with hours of operation) : CHEMTREC®: 1-800-424-9300

Section 2. Hazard identification

Classification of the substance or mixture

COMBUSTIBLE DUSTS - Category 1

GHS label elements

Signal word : Warning
Hazard statements : May form combustible dust concentrations in air.

Precautionary statements

Prevention : Not applicable.
Response : Not applicable.
Storage : Not applicable.
Disposal : Not applicable.

Supplemental label elements : Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Prevent dust accumulation.
Section 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Ingredient name</th>
<th>Synonyms</th>
<th>% (w/w)</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polymeric beads</td>
<td>Polymeric beads</td>
<td>100</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-aid measures

Description of necessary first aid measures

**Eye contact**: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

**Inhalation**: Remove victim to fresh air and keep at rest in a position comfortable for breathing. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Skin contact**: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

**Ingestion**: Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel.

Most important symptoms/effects, acute and delayed

**Potential acute health effects**

- **Eye contact**: Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

- **Inhalation**: Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

- **Skin contact**: No known significant effects or critical hazards.

- **Ingestion**: No known significant effects or critical hazards.

**Over-exposure signs/symptoms**

- **Eye contact**: Adverse symptoms may include the following:
  - irritation
  - redness

- **Inhalation**: Adverse symptoms may include the following:
  - respiratory tract irritation
  - coughing

- **Skin contact**: No specific data.

- **Ingestion**: No specific data.

**Indication of immediate medical attention and special treatment needed, if necessary**

- **Notes to physician**: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

- **Specific treatments**: No specific treatment.

- **Protection of first-aiders**: No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)
Section 5. Fire-fighting measures

Extinguishing media

<table>
<thead>
<tr>
<th>Suitable extinguishing media</th>
<th>Use dry chemical powder.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsuitable extinguishing media</td>
<td>Avoid high pressure media which could cause the formation of a potentially explosive dust-air mixture.</td>
</tr>
</tbody>
</table>

Specific hazards arising from the chemical

<table>
<thead>
<tr>
<th>Hazardous thermal decomposition products</th>
<th>Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides</th>
</tr>
</thead>
</table>

Special protective actions for fire-fighters

| Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. |

Special protective equipment for fire-fighters

| Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |

Remark

| Emits acrid smoke and fumes when heated to decomposition. |

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

| No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Put on appropriate personal protective equipment. |

For emergency responders

| If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |

Environmental precautions

| Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |

Methods and materials for containment and cleaning up

| Methods for cleaning up | Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. |

Section 7. Handling and storage

Precautions for safe handling

| Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To |
Section 7. Handling and storage

Advice on general occupational hygiene
avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

Conditions for safe storage, including any incompatibilities
: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

: Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polymeric beads</td>
<td>ACGIH TLV (United States). Particulates Not Otherwise Specified (PNOS): 10 mg/m³ Form: Inhalable Particulates Not Otherwise Specified (PNOS): 3 mg/m³ Form: Respirable</td>
</tr>
</tbody>
</table>

Biological exposure indices
None known.

Appropriate engineering controls
: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls
: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures
: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection
: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. If operating conditions cause high dust concentrations to be produced, use dust goggles.
### Section 8. Exposure controls/personal protection

**Hand protection**: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body protection**: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection**: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection**: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

### Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

<table>
<thead>
<tr>
<th>Appearance</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid. [Powder. / Solid beads.]</td>
</tr>
<tr>
<td>Color</td>
<td>White. / Off-white.</td>
</tr>
<tr>
<td>Odor</td>
<td>Slight</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not available.</td>
</tr>
<tr>
<td>pH</td>
<td>Not available.</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Decomposes</td>
</tr>
<tr>
<td>Boiling point, initial boiling point, and boiling range</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability</td>
<td>Emits acrid smoke and fumes when heated to decomposition.</td>
</tr>
<tr>
<td>Lower and upper explosion limit/flammability limit</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not available.</td>
</tr>
<tr>
<td>Relative vapor density</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Relative density</td>
<td>&gt;1</td>
</tr>
<tr>
<td>Density</td>
<td>&gt;1 g/cm³</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Media</td>
</tr>
<tr>
<td></td>
<td>Water</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Particle characteristics</td>
<td></td>
</tr>
</tbody>
</table>
Section 9. Physical and chemical properties and safety characteristics

Median particle size: 75 to 300 μm

Section 10. Stability and reactivity

**Reactivity**: No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability**: The product is stable.

**Possibility of hazardous reactions**: Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid**: Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Prevent dust accumulation.

**Incompatible materials**: Reactive or incompatible with the following materials: oxidizing materials

**Hazardous decomposition products**: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

**Information on toxicological effects**

**Acute toxicity**: Not available.

**Conclusion/Summary**: To the best of our knowledge, the toxicological properties of this substance have not been thoroughly investigated.

**Irritation/Corrosion**: Not available.

**Sensitization**: Not available.

**Mutagenicity**: Not available.

**Carcinogenicity**: Not available.

**Reproductive toxicity**: Not available.

**Teratogenicity**: Not available.

**Specific target organ toxicity (single exposure)**: Not available.

**Specific target organ toxicity (repeated exposure)**: Not available.

**Aspiration hazard**: Not available.
Section 11. Toxicological information

Information on the likely routes of exposure

- **Eye contact**: No known significant effects or critical hazards.
- **Inhalation**: Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
- **Skin contact**: No known significant effects or critical hazards.
- **Ingestion**: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

- **Eye contact**: Adverse symptoms may include the following:
  - irritation
  - redness
- **Inhalation**: Adverse symptoms may include the following:
  - respiratory tract irritation
  - coughing
- **Skin contact**: No specific data.
- **Ingestion**: No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

- **Short term exposure**
  - Potential immediate effects: Not available.
  - Potential delayed effects: Not available.
- **Long term exposure**
  - Potential immediate effects: Not available.
  - Potential delayed effects: Not available.

Potential chronic health effects

- **General**: Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
- **Carcinogenicity**: No known significant effects or critical hazards.
- **Mutagenicity**: No known significant effects or critical hazards.
- **Reproductive toxicity**: No known significant effects or critical hazards.

Numerical measures of toxicity

- **Acute toxicity estimates**: N/A
Section 12. Ecological information

**Toxicity**
Not available.

**Conclusion/Summary**
To the best of our knowledge, the ecotoxicological properties of this substance have not been thoroughly investigated.

**Persistence and degradability**
Not available.

**Bioaccumulative potential**
Not available.

**Mobility in soil**
Soil/water partition coefficient (K_{OC}) : Not available.

**Other adverse effects**
No known significant effects or critical hazards.

Section 13. Disposal considerations

**Disposal methods**
The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**Transport within user’s premises**:
always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 14. Transport information

**TDG / IMDG / IATA**
Not regulated.

**Special precautions for user**
Not available.

**Transport in bulk according to IMO instruments**
Not available.

Section 15. Regulatory information

**Canadian lists**
Canadian NPRI : None of the components are listed.
CEPA Toxic substances : None of the components are listed.

**International regulations**
Chemical Weapon Convention List Schedules I, II & III Chemicals
Not listed.

**Montreal Protocol**
Section 15. Regulatory information

Not listed.

Stockholm Convention on Persistent Organic Pollutants
Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)
Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals
Not listed.

Inventory list

Australia    : Not determined.
Canada       : Not determined.
China        : Not determined.
Eurasian Economic Union : Russian Federation inventory: Not determined.
Japan        :
  Japan inventory (CSCL): Not determined.
  Japan inventory (ISHL): All components are listed or exempted.
New Zealand  : Not determined.
Philippines  : Not determined.
Republic of Korea: All components are listed or exempted.
Taiwan       : All components are listed or exempted.
Japan inventory (ISHL): All components are listed or exempted.
United States: All components are active or exempted.
Viet Nam     : Not determined.

Section 16. Other information

History

Date of issue/Date of revision : 10/07/2022
Date of previous issue        : 11/23/2021
Version                       : 7

Key to abbreviations

ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
HPR = Hazardous Products Regulations
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships,
1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
UN = United Nations

Procedure used to derive the classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMBUSTIBLE DUSTS - Category 1</td>
<td>On basis of test data</td>
</tr>
</tbody>
</table>

Indicates information that has changed from previously issued version.

Notice to reader
Section 16. Other information

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