



PA 605-A

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

Date of issue: 09/10/2015

Revision date: 09/10/2015

Version: 1.0

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

1.1. Product identifier

Product name : PA 605-A
Product code : Not available

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

Use of the substance/mixture : Specialty nylon composite for sintering.

1.3. Details of the supplier of the safety data sheet

Advanced Laser Materials, LLC.
3115 Lucius McCelvey
Temple, Texas 76504 - USA
T (254) 773-3080 M-F, 8:00 a.m. – 5:00 p.m.

1.4. Emergency telephone number

Emergency number : (254) 773-3080 M-F, 8:00 a.m. – 5:00 p.m. (Central Time)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Combustible Dust

2.2. Label elements

GHS-US labelling

Signal word (GHS-US) : Warning
Hazard statements (GHS-US) : May form combustible dust concentrations in air

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

50 percent of the mixture consists of ingredient(s) of unknown acute toxicity.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

| Name | Product identifier | % |
|----------|--------------------|---------|
| Aluminum | (CAS No) 7429-90-5 | 30 - 60 |

* The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
First-aid measures after skin contact : If irritation occurs, flush skin with plenty of water. Get medical attention if irritation persists.
First-aid measures after eye contact : In case of contact, immediately flush eyes with plenty of water. Remove contact lenses, if worn. If irritation persists, get medical attention.
First-aid measures after ingestion : If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : Dust may cause respiratory tract irritation.
Symptoms/injuries after skin contact : Dust may cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
Symptoms/injuries after eye contact : Dust may cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
Symptoms/injuries after ingestion : May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

PA 605-A

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂).
Unsuitable extinguishing media : Do not use water or halogen agents.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon.

5.3. Advice for firefighters

Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). Avoid generating dust. Dust may form flammable mixture with air. Reacts with water, generates gases or heat.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protection recommended in Section 8. Keep unnecessary personnel away from the release. Eliminate sources of ignition.
Emergency procedures : Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (ie, clearing dust surfaces with compressed air).

6.2. Methods and material for containment and cleaning up

For containment : Contain spill, then place in a suitable container. Minimize dust generation. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).
Methods for cleaning up : Vacuum or sweep material and place in a disposal container. Provide ventilation. Avoid generating dust. Use non-sparking tools.

6.3. Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep away from sources of ignition. - No smoking. Avoid contact with skin and eyes. Do not swallow. Avoid generating and breathing dust. Good housekeeping is important to prevent accumulation of dust. The use of compressed air for cleaning clothing, equipment, etc, is not recommended. Handle and open container with care. Use with adequate ventilation. When using do not eat, drink or smoke. Take precautionary measures against static discharge. Use non-sparking tools.
Hygiene measures : Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep out of the reach of children. Store in dust-tight, dry, labelled containers. Store in a cool place, away from incompatibles.

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Aluminum (7429-90-5) | | |
|----------------------|-------------------------------------|--|
| ACGIH | ACGIH TWA (mg/m ³) | 1 mg/m ³ (respirable fraction) |
| OSHA | OSHA PEL (TWA) (mg/m ³) | 15 mg/m ³ (total dust) 5 mg/m ³ (respirable fraction) |

8.2. Exposure controls

Appropriate engineering controls : Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.
Personal protective equipment : Avoid all unnecessary exposure.
Hand protection : None necessary under normal conditions of use. Wear gloves if handling large quantities.
Eye protection : Safety glasses with side shields or goggles are recommended for dust.

PA 605-A

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

| | |
|---------------------------------|--|
| Skin and body protection | : Wear suitable protective clothing. |
| Respiratory protection | : Wear appropriate approved dust mask or filtering facepiece if dust is generated. |
| Environmental exposure controls | : Maintain levels below Community environmental protection thresholds. |
| Other information | : Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices. |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|----------------------|
| Physical state | : Solid |
| Appearance | : Powder |
| Color | : Gray |
| Odor | : Odorless |
| Odor threshold | : No data available |
| pH | : Not applicable |
| Melting point | : > 80 °C (> 176 °F) |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : No data available |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Flammability (solid, gas) | : Combustible Dust |
| Explosive limits | : No data available |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |
| Vapor pressure | : No data available |
| Relative density | : 1.3 g/cc |
| Relative vapor density at 20 °C | : No data available |
| Solubility | : Negligible. |
| Partition coefficient: n-octanol/water | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Viscosity | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under normal storage conditions. Keep dry in storage. Combustible Dust.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

Heat. Incompatible materials. Ignition sources

10.5. Incompatible materials

Acids. Alkalis. Strong oxidizing agents. Water. Halogenated compounds. Metal oxides.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| | |
|----------------|-------------------|
| Acute toxicity | : Not classified. |
|----------------|-------------------|

PA 605-A

Safety Data Sheet

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| PA 605-A | |
|---------------------|-------------------|
| LD50 oral rat | > 2000 mg/kg |
| LD50 dermal rabbit | No data available |
| LC50 inhalation rat | No data available |

| | |
|--|--|
| 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 | : Based on available data, the classification criteria are not met. |
| 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. |
| Specific target organ toxicity (single exposure) | : Based on available data, the classification criteria are not met. |
| Specific target organ toxicity (repeated exposure) | : Based on available data, the classification criteria are not met. |
| Aspiration hazard | : Based on available data, the classification criteria are not met. |
| Symptoms/injuries after inhalation | : Dust may cause respiratory tract irritation. |
| Symptoms/injuries after skin contact | : Dust may cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin. |
| Symptoms/injuries after eye contact | : Dust may cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling. |
| Symptoms/injuries after ingestion | : May be harmful if swallowed. May cause stomach distress, nausea or vomiting. |

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.

12.2. Persistence and degradability

| PA 605-A | |
|-------------------------------|------------------|
| Persistence and degradability | Not established. |

12.3. Bioaccumulative potential

| PA 605-A | |
|---------------------------|------------------|
| Bioaccumulative potential | Not established. |

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible. Recover and recycle product if possible.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated for transport

Additional information

Other information : No supplementary information available.

Special transport precautions : Do not handle until all safety precautions have been read and understood.

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

PA 605-A

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

Aluminum (7429-90-5)

Subject to reporting requirements of United States SARA Section 313

| | |
|---------------------------------------|---------------------------|
| SARA Section 313 - Emission Reporting | 1.0 % (dust or fume only) |
|---------------------------------------|---------------------------|

15.2. US State regulations

PA 605-A

| | |
|----------------------------|--|
| State or local regulations | This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm. |
|----------------------------|--|

SECTION 16: Other information

Date of issue : 09/10/2015
Revision date : 09/10/2015
Other information : None.

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