IC3D Printers

421 W. State St Columbus, OH 43215 USA - Phone: 614 395 3504 - Fax: 614 376 0881

Material Safety Data Sheet November 3, 2016 V3W

Product Name: **Polylac** ® PA-747R PA-747F PA-747S PA-709S PA-709P PA-709A **1.COMPANY IDENTIFICATION**

IC3D LLC

Address 421 W. State St. Columbus, OH 43215

Information Phone No. 614 395 3504(Market & Business Development)

Fax No. 614 376 0881

2.COMPOSITION / INFORMATION ON INGREDIENTS

Substance or Preparation Substance

Chemical Name Acrylonitrile-Butadiene-Styrene Copolymer

Content > 98 % (Additives \leq 2 %)

Formula (C3H3N, C4H6, C8H8)x

CAS No. 9003-56-9

Impurities Contributing to Hazard None

3.HAZARD IDENTIFICATION

Most Important Hazards None

Adverse Human Health Effects None

Environmental Effects None

Physical and Chemical Hazards None

4.FIRST AID MEASURES

Inhalation In case of gases evolving from melted resin, move subject to fresh air.

Treat symptomatically.

Skin Contact In case of pellets or powder, wash with water.

In case of melt, wash affected skin area and clothing with plenty of (soap and) water.

Seek medical advice.

Eye Contact In case of pellets or powder, flush with plenty of water for at least 15 minutes.

Seek medical advice if any dust particles still remain.

In case of gases evolving from melted resin of high temperature, flush with plenty of water for at least 15 minutes. Seek medical advice if necessary.

Ingestion Induce vomiting. Rinse mouth with water. Seek medical advice if necessary.

5.FIRE-FIGHTING MEASURES

Extinguishing Media Water, Foam, Dry chemical powder

Special Fire-Fighting Procedure Self contained breathing apparatus

Fire and Explosion Hazards None

6.ACCIDENTAL RELEASE MEASURES

Methods for Cleaning up Recovery if not contaminated or Disposal

Personal Precautions Pellets or powder remained on ground may cause slipping Environmental Precautions Gather pellets and powder thoroughly to avoid birds or fishes taking

from draining water.

7.HANDLING AND STORAGE

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Handling Prevent from fire around handling area. Maintain good housekeeping standards to prevent accumulation of dust. To avoid dust explosion resulting from the existence of powder, electrostatics eliminators and grounding should be fixed to such equipment as air transferring pipes, bag filters and hoppers. Use electrically conductive filters for bag filters.

Storage Keep the materials at a cool dry place. Protect from direct sunlight, rain and violent temperature fluctuation. Fire is inhibited around storage area.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Threshold Limit Value Not determined

Ventilation Necessary to exclude dust, fumes and gases.

Personal Protection Eye Wear safety glasses for general purpose. Wear chemical goggles for cleaning molding machines.

Respiratory Wear masks for cleaning molding machines.

Gloves Necessary for handling melted resin.

9.PHYSICAL AND CHEMICAL PROPERTIES

Appearance Off white pellets

Melting Temperature Softening above 100°C

Solubility Insoluble in water

Specific Gravity 1.03 ~ 1.10

Thermal Decomposition Temperature in air 270 C

10.STABILITY AND REACTIVITY

Flammability Yes

Flash Point 404 °C

Auto-ignition Temperature 466 °C

Reactivity with Water No Stability Stable and non-reactive under normal handling and storage condition.

Dust Explosion Possible if powder exists.

Explosion data for powder (< 145 mesh)

Lower explosion limit 45 g/m³

Minimum ignition energy 3.6 mJ

Maximum explosion pressure 7 x 10⁵ Pa

Maximum pressure increase rate $3.2 \times 10^7 \text{ Pa/S}$

Thermal Decomposition Gases CO, HCN, AN, SM and NO

Combustion Energy 3.53 x 10⁷ J/kg (8424 Kcal/kg)

11.TOXICOLOGICAL INFORMATION

Irritation Fumes or vapors generated from decomposing resin may be irritant to eyes.

Acute oral toxicity (LD50) Not determined

Mutagenicity Not determined

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12.ECOLOGICAL INFORMATION

To avoid being taken by ocean species or birds, disposal of the waste to the ocean and water sources is inhibited.

13.DISPOSAL CONSIDERATIONS

Controlled incineration or landfill according to local, state or national laws and regulations concerning health and pollution.

Inadequate incineration may generate toxic gases such as CO, HCN, AN and SM.

14.TRANSPORT INFORMATION

Not classified

15.REGULATORY INFORMATION

Not available

16.0THER INFORMATION

None