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Product Name : TIP-ESD-2

Color: Black

MSDS# 81007

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION

Commercial Product Name: LATAMID 66 H2 K/30 NAT.:0045

1.2 USE OF THE SUBSTANCE/PREPARATION

Production of moulded articles

1.3 COMPANY/UNDERTAKING IDENTIFICATION

LATI Industria Termoplastici Spa
Via F. Baracca 7
21040 VEDANO OLONA
Italy

1.4 EMERGENCY TELEPHONE NUMBER

+390332409777

2. HAZARDS IDENTIFICATION

According to EC directives, the material is not classified as dangerous.

Risk of slipping if the product is spilled onto the ground. Fumes or vapours released during processing, must not be inhaled. Molten material can cause burns. Dusts and particles generated during handling the product, may cause mechanical irritation of the eyes, skin and mucous membranes. Grinding of moulded items can emphasize these phenomena; it is therefore necessary to avoid inhalation of any possible dust in the environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Polyamide 66
Carbon fibres

Additional information on the composition can be found in the technical literature

Dangerous substances contained in the material

None

4. FIRST AID MEASURES

In case of irritation due to contact with the eyes

Wash with plenty of water while keeping the eyelids open. If eye irritation persists, consult a doctor.

In case of skin irritation due to contact with granules or powder:

Wash with soap and water.

In case of skin contact with molten plastic material:

Immediately cool with water and consult a doctor.

Dust inhalation:

Transport the victim to fresh air and consult a doctor.

Accidental inhalation of decomposition gases:

Transport the victim to fresh air and consult a doctor.

5. FIRE-FIGHTING MEASURES

Fire extinguishing media:

Any type of extinguishing agent (water, foam, carbon dioxide, powder, etc.)

Extinguishing media which must not be used:

None.

Fire fighting equipment:

Wear self contained breathing apparatus and flame-proof clothing

Decomposition products released during a fire:

carbon monoxide, carbon dioxide, nitriles, aldehydes, ammonia, nitrogen oxides, aliphatic and aromatic hydrocarbons, traces of hydrogen cyanide

6. ACCIDENTAL RELEASE MEASURES

In case of spillage, pick up mechanically without forming dust. Do not disperse the material into drains or soil.

7. HANDLING AND STORAGE

7.1 HANDLING

During handling, avoid dust formation. Ensure adequate measures to prevent the build up of electrostatic charge (earthing of equipment etc.)

The material contains carbon fibre; it is therefore necessary to check the degree of protection of the site, of the electrical equipment, and in particular, compatibility for the presence of conductive dusts.

7.2 STORAGE

Store in a covered and dry place, away from atmospheric agents.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 EXPOSURE LIMIT VALUES

Exposure limit values for pollutants in the workplace (ACGIH)

TLV:	10 mg/m ³	TLV-TWA	inhalable dust
	3 mg/m ³	TLV-TWA	respirable dust
	17 mg/m ³	TLV-TWA	ammonia
	24 mg/m ³	TLV-STEL	ammonia

DEFINITIONS

TLV-TWA (Exposure Limit Values - Time weighted average): average concentration calculated over 8 hours (working day) and 40 hours per week to which workers may be exposed without adverse effect.

TLV-STEL (Threshold limit value - Short term exposure limit): the concentration to which workers can be exposed for a short period (15 minutes) not more than 4 times per day.

8.2 PERSONAL PROTECTION

During handling of the material and processing of parts, extract any dust present in the environment by applying appropriate measures and using adequate protective equipment. During extrusion and moulding, extract fumes or vapours with an appropriate exhaust system. For emissions of pollutants into the atmosphere during the processing of plastic materials, observe the limits set by the competent authorities and local and national legislation.

Skin protection:

When handling in the presence of dust or molten material, the use of protective gloves and clothing is recommended.

Eye protection:

When handling in the presence of dust, safety goggles are recommended. When processing in the presence of molten material, a face shield is recommended.

Respiratory protection:

During handling and processing of the material, the use of protective masks is recommended if dust or gas/vapour is present.

9. PHYSICAL AND CHEMICAL PROPERTIES

pH:	not applicable
Physical form:	solid in granules
Odour:	characteristic
Colour:	natural or different colours (see description)
Density:	408,16 - 816,32 g/cm ³
Melting point/range:	240 - 265 °C
Thermal decomposition:	>300 °C
Flash point:	400 °C
Autoignition:	430 °C
Flammability:	not flammable (Dir 67/548/EEC as amended)
Water solubility:	insoluble at 20°C

10. STABILITY AND REACTIVITY

Conditions and/or materials to avoid

Before processing, it is recommended to dry the product according to the technical instructions. Caution! If the material is handled at processing temperatures higher than the highest suggested value (mentioned in the technical literature), some decomposition can occur; this becomes more important with higher residence times in the barrel. If the production process is interrupted, do not let the material stay in the barrel: it can decompose and/or create a dangerous excess of pressure in the barrel. Avoid contamination with other materials which may create harmful gases and fumes during the processing phase. During purging, do not allow fumes from the molten material to disperse into the working environment. For additional information, refer to the recommendations in the technical literature.

Hazardous decomposition products: acrolein, low MW olefins and nitriles, acetaldehyde, amides, cyclopentanone, traces of hydrogen cyanide

11. TOXICOLOGICAL INFORMATION

Specific tests to determine the toxicity of the product have not been carried out. The evaluation is based on information from similar products, the ingredients, professional experience and from technical literature.

SHORT TERM EFFECTS (ACUTE EFFECTS)

Dust generated during handling of the material can cause mechanical irritation of the eyes, skin and upper respiratory tract.

LONG TERM (CHRONIC) EFFECTS

No long term effects have been observed.

12. ECOLOGICAL INFORMATION

12.1 and 12.2 ECOTOXICITY AND MOBILITY

No specific tests have been made on this material. It is practically insoluble in water and therefore is not predicted to release substances into water or soil.

12.3 PERSISTENCE AND DEGRADABILITY

Potentially not biodegradable. It is expected to be persistent.

12.4 BIOACCUMULATIVE POTENTIAL

It is not expected to cause bioaccumulation.

12.5 OTHER ADVERSE EFFECTS

No other environmental effects have been observed (ozone, global warming).

Water purification plant: the material can be eliminated from water by mechanical separation. In accordance with EC and national regulations, water which has been in contact with the material or the moulded/printed items, may require special treatment before being sent to drain. If necessary, provide exhaust gas treatment for air coming from the fume extraction plant used during handling of the material, in accordance with EC and national regulations.

13. DISPOSAL CONSIDERATIONS

The material must be recycled or disposed of (in a landfill or incinerator) in accordance with local and national legislation. Dispose of packaging and residues in accordance with local and national legislation.

14. TRANSPORT INFORMATION

No transport limitations are expected.

15. REGULATORY INFORMATION

Labelling

The material does not require to be labelled in accordance with Directive 67/548/EEC and amendments (Special case - alloys, preparations containing polymers and preparations containing elastomers)

Legislation references

classification and labelling:

- D.Lgs. 14/03/2003 n. 65 - D.M. 14/06/2002 - D.M. 28/04/97 - D.Lgs. n. 52 of 3/2/97 - D.M. 16/2/93 - Dir. 2001/60/EC - Dir. 1999/45/EC - Dir. 92/32/EC - Dir. 88/379/EEC - Dir. 67/548/EEC and amendments

occupational health and safety

- D.M. 26/02/2004 - D.Lvo. 233/03 "ATEX" - D.P.R. 547/55 - D.P.R. 303/56 - D.Lgs. 277/91 - D.Lgs. 626/94 and amendments - D.Lgs. 2/2/2002 n. 25 - Dir. 80/1107/EEC, 82/605/EEC, 83/477/EEC, 86/188/EEC, 88/642/EEC, 89/391/EEC, 89/654/EEC, 89/655/EEC, 89/656/EEC, 90/270/EC, 90/394/EC, 90/679/EC - Dir. 2003/10/EC

atmospheric emissions:

- DPR 203/88 - DM 12/7/90 - DM 12/7/94 - Dir. 80/779/EEC - Dir.82/884/EEC - Dir. 84/360/EEC - Dir. 85/203/EEC

water protection:

- D.M. n.367 of 06/11/2003 - D.Lgs. n. 258 of 18/08/2000 - D.Lgs. n. 152 of 11/05/1999 - Dir. 91/271/EEC

waste disposal:

- D.Lgs. n. 22 05/02/1997 and amendments - Dir. 75/442/EEC - Dir. 91/156/EC, 91/689/EC, 94/62/EC, 2001/118/EC

PPE:

- D.Lgs. 475/92 - D.Lgs. 10/97 - D.M. 02/05/2001 - D.M. 13/02/2003 - Dir. 89/686/EEC - Dir. 93/68/EEC - Dir. 93/95/EEC - Dir. 96/58/EC

The present datasheet has been prepared according to the following regulations: Reg.(EC) No 1907/2006 - D.M. 07/09/2002 - Dir. 2001/58/EC - Dir. 1999/45/EC - ISO 11014-1 (1994)

16. OTHER INFORMATION

This material is not suitable for use in medical applications, unless the medical device has been tested according to the applicable national and international laws and that the required safety tests have been carried out. The company LATI does not take any responsibility regarding the use of the material in the above mentioned applications.

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The information supplied, is based on our best knowledge, our experience and on information received from our suppliers. It refers to the handling and the treatment of the material, but for its use in specific projects, it is recommended to contact our Technical Service Department. The company LATI is available to give all information and advice necessary for the use of the material and the optimization of production processes. Processing information can be found in the technical literature. It is the duty of the user to apply all protective measures for the health of workers in accordance with national and local regulations on occupational safety. Distributors and users of the material should pass this safety datasheet to all persons intending to handle or process this material. The company LATI does not take on any responsibility for improper use or uses different from those reported in the technical literature.

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