

SECTION 1:

Identification of the substance/mixture and of the company/undertaking

1.1 Identification of the substance/preparation

Commercial Name LATI0HM 36-08 AM PD02 NAT.:0170

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

Relevant Identified Uses

Printed components production

Uses advised against

This material is not suitable for use in medical applications, unless the medical device is tested in accordance with applicable national and international legislation and the required safety tests have been conducted. Lati assumes no responsibility for the use of the material in the above-mentioned uses.

1.3 Details of the supplier of the safety data sheet

LATI Industria Termoplastici S.p.A.

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Italy

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e-mail: techserv@it.lati.com

e-mail of technician: msds_support@it.lati.com

1.4 Emergency phone number

+390332409777

SECTION 2:

Hazards identification

2.1 Classification of the substance or mixture

According to the Reg. (CE) N. 1272/2008 (CLP), the material is not classified as dangerous.

2.2 Label elements

The material does not require labeling in accordance with Directive 67/548 / EEC and subsequent adjustments (Special cases - Alloys, preparations containing polymers and preparations containing elastomers), with Directive 1999/45 / EC and with Regulation (EC) No. 1272 / 2008 (CLP).

SECTION 3:

Composition / Information on Ingredients

**Copolymer Acrylonitrile-butadiene-styrene
Intrinsically dissipative polymer**

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

3.1 Dangerous substances contained in the material

None

3.2 SVHC substances intentionally added in concentration above 0.1% p/p

None

SECTION 4:

First Aid measures

4.1 Description of first aid measures**Possible irritation due to eye contact**

- Wash thoroughly with water keeping the eyelids open. If irritation persists, consult a doctor.

Possible contact of molten plastic material with the skin

- Cool quickly with water and consult a doctor immediately.

Inhalation of dusts

- Cool quickly with water and consult a doctor immediately.

Possible contact of molten plastic material with the skin

- Cool quickly with water and consult a doctor immediately.

Accidental inhalation of decomposition gas

- Take the injured person to a well-ventilated area and consult a doctor.

4.2 Main symptoms and effects, both acute and delayed

- Mechanical irritation due to product particles.

4.3 Indication of any need to immediately consult a doctor and special treatments

- Bring the injured person to a ventilated area and consult a doctor.

SECTION 5:

Fire fighting measures

5.1 Extinguishing media

Any type of extinguisher (water, foam, carbon dioxide, dust, etc.).

Extinguishing media that must not be used

Nobody.

5.2 Special hazards arising from the substance or mixture

Decomposition products released during combustion

carbon monoxide, carbon dioxide, nitrogen oxides, hydrogen cyanide, styrene, acrylonitrile.

In certain fire conditions the presence of traces of other toxic substances cannot be excluded. The formation of further decomposition and oxidation products depends on the fire conditions.

5.3 Recommendations for firefighters

Wear self-contained breathing apparatus and fire-resistant clothing.

SECTION 6:

Measures in case of accidental release

6.1 Personal precautions, protective equipment and emergency procedures**6.1.1. For those who do not intervene directly**

No special measures are required.

6.1.2. For those who intervene directly

No special measures are required.

6.2 Environmental precautions

No special measures are required.

6.3 Methods and materials for containment and cleaning up

In case of spillage, collect the product mechanically avoiding to create dust.
Do not dispose of the material in waterways or soil.

6.4 Reference to other sections

Information regarding exposure control / personal protection and disposal considerations are given in Sections 8 and 13.

SECTION 7:

Handling and storage

7.1 Precautions for safe handling

During handling, avoid the formation of significant quantities of particles with a particle size of less than 500 micrometers, using in these cases the indications contained in NFPA 654 (National Fire Protection Association) or equivalent. Take appropriate measures to prevent the formation of electrostatic discharges (grounding of the equipment, etc.) following the indications of the CEI CLC / TR 50404 Guide (CEI 31-55) (Electrostatics - Guidance and recommendations to avoid hazards due to static electricity) or other equivalent guides.

7.2 Conditions for safe storage, including any incompatibilities

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

7.3 Specific end use

For more information, please contact the supplier.

SECTION 8:**Exposure Control / Personal Protection****8.1 Control parameters**

Concentration limit values for pollutants in the workplace (ACGIH)

TLV	10 mg/m ³	TLV -TWA	inhalable dusts
	3 mg/m ³	TLV -TWA	breathable powders
	85 mg/m ³	TLV -TWA	styrene
	0,23 mg/m ³	TLV -C	acrolein
	4,3 mg/m ³	TLV -TWA	acrylonitrile
	170 mg/m ³	TLV -STEL	styrene

Definitions

TLV-TWA	(Threshold Limit Value - Time Weighted Average): average concentration calculated over a time of 8 hours (working day) and 40 hours per week to which workers can be exposed without negative effects.
TLV-C	(Threshold Limit Value - Ceiling): concentration that must not be exceeded during work even for a very short period of time.
TLV-STEL	(Threshold Limit Value - Short Exposure Time Limit): concentration at which workers can be exposed for a short period (15 minutes) and no more than 4 times a day.

Derivatives without effect (DNEL)

No data available.

Predictable no-effect concentration (PNEC)

No data available.

8.2 Exposure controls

During the handling of the material and the grinding of the pieces, suck up any dust present in the environment using appropriate equipment and using the appropriate protective masks. During the extrusion or molding phase, evacuate fumes or vapors with appropriate suction systems. For atmospheric emissions of pollutants produced during the transformation of plastic materials, follow the limits imposed by the competent authorities and by local and national legislation.

Skin protection

During handling in the presence of dust it is advisable to use EN 388 (2132) and protective clothing. During the transformation in the presence of fumes and mists it is advisable to use protective clothing and gloves marked EN 388 (4131), EN 407 (X2XXXX), EN 374-3.

Eye protection

During handling it is advisable, in the presence of dust, to use protective goggles EN 166. During the transformation, in the presence of molten material, it is advisable to use a protective visor.

Respiratory protection

During handling and processing, in the presence of dust or gases / vapors, the use of FFP2 protective masks is recommended.

SECTION 9:**Physical and safety details****9.1 Information on basic physical and chemical properties**

pH	not applicable
Physical aspect	solid in granules
Smell	characteristic
Color	natural or various colors (see description)
Density	1,00 - 1,66 g/cm ³
Thermal decomposition	>300° C
Flash point	350° C
Self-ignition	350° C
Flammability	non-flammable (Dir. 67/548 / CE and modifications)
Explosive properties	non-explosive in the form in which it is marketed

9.2 Other Information

Solubility in water	insoluble at 20 °C
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SECTION 10:**Stability and reactivity****10.1 Responsiveness**

No dangerous reaction if the instructions / instructions for storage and handling are respected.

10.2 Chemical stability

The product is stable if the prescriptions / indications for storage and handling are respected.

10.3 Possibility of hazardous reactions

No known dangerous reactions. The product is chemically stable.

10.4 Conditions to avoid

Before processing it is recommended to dry the material according to the conditions reported in the technical literature. Warning! Working the material at temperatures higher than the maximum recommended transformation temperature (indicated in the technical literature), can generate a degradation process the more marked the higher the permanence of the material in the cylinder. Avoid leaving the material in the cylinder if production stops: it can degrade and / or create dangerous overpressures in the cylinder.

Avoid contamination with other materials that could cause harmful gases and fumes during the transformation phase. During the purge phase, do not allow the fumes from the molten material to leak into the work environment. For more information, follow the recommendations in the technical literature

10.5 Incompatible materials

Avoid contamination with other materials that could cause harmful gases and fumes during the transformation phase.

10.6 Hazardous decomposition products

acrolein, hydrogen cyanide, acetaldehyde, styrene, toluene, acrylonitrile.

SECTION 11:**Toxicology details****11.1 Information on toxicological effects**

No specific toxicity tests were performed on this material. Evaluation is carried out with information on similar products, ingredients, professional experience and technical literature.

Acute toxicity

No data available.

**Skin corrosion /
irritation**

Dust generated during material handling can cause mechanical irritation of the skin.

**Respiratory or skin
sensitization**

Dust generated during material handling can cause mechanical eye irritation.

Germ cell mutagenicity

No data available.

Carcinogenicity

No data available.

Cancerogenicità

Styrene is classified: - from IARC in group 2B (possible carcinogen for humans); - from the ACGIH in the A4 category (not classifiable as a human carcinogen). Acrylonitrile is classified: from Regulation (EC) No. 1272/2008 as a carcinogen of category 1B (substances which are presumed to have carcinogenic effects on humans, mainly on the basis of animal studies); from ACGIH in the A3 category (animal carcinogen with unknown relevance to humans); from IARC in group 2B (possible human carcinogen).

Reproductive toxicity

No data available.

**Specific target organ
toxicity (STOT) - single
exposure**

No data available.

**Specific target organ
toxicity (STOT) - repeated
exposure**

No data available.

Danger in case of aspiration

Dust generated during material handling can cause mechanical irritation of the upper respiratory tract.

SECTION 12: Ecological information

12.1 Toxicity

No specific tests have been conducted on this material. It is practically insoluble in water and therefore presumably does not release substances into the water or into the ground.

The information was taken from substances / products of similar structure or composition.

Toxicity on fish No data available.

Chronic toxicity on fish No data available.

Aquatic invertebrates No data available.

Chronic toxicity to aquatic invertebrates No data available.

Chronic toxicity to aquatic invertebrates No data available.

Microorganisms / Effects on activated sludge No data available.

12.2 Persistence and degradability

Potentially not biodegradable. Expected to persist.

12.3 Bioaccumulation potential

Presumably it does not give rise to bioaccumulation.

12.4 Mobility in the soil

Based on the morphology and composition of the product, high mobility in the soil is unlikely.

12.5 Results of PBT and vPvB assessment

The material does not contain PBT (persistent, bioaccumulative, toxic) or vPvB (very persistent, very bioaccumulative) substances.

12.6 Other adverse effects

No other effects on the environment are known (ozone, global warming).

Purification plants: the material can be eliminated from the water by mechanical separation. The water that comes into direct contact with the material or with the molded piece may require specific treatment before being discharged, according to national and community regulations. If necessary, provide air treatment systems from the fume extraction systems produced during the processing of the material, as required by national and local regulations.

SECTION 13:

Considerations on Disposal

13.1 Waste treatment methods

The material must be recycled or disposed of or incinerated in compliance with local and national laws. Anything that cannot be recovered or recycled must be managed in an appropriate disposal facility. Dispose of packaging and waste in accordance with local and national laws.

SECTION 14:

Transport information

14.1 UN number

Not applicable.

14.2 UN shipping name

Not applicable.

14.3 Classes of danger associated with transport

Not applicable.

14.4 Packing group

Not applicable.

14.5 Environmental hazards

Not applicable.

14.6 Special precautions for users

Not applicable.

14.7 Transport of bulk cargo according to Annex II of MARPOL 73/78 and the IBC code

Not applicable.

SECTION 15:

Regulatory information

15.1 Regulations and legislation on health, safety and the environment specific to the substance or mixture**Legislative references****Classification and labeling**

- Dir. 2001/60 / CE - Dir. 1999/45 / CE - Dir. 92/32 / CE - Dir. 67/548 / CEE and following adaptations - Reg. (CE) N. 1272/2008.

Safety and health of workers

- Ministerial Decree 26/02/2004 - Legislative Decree 233/03 "ATEX" - Dir. 98/24 / CE, 89/391 / CEE, 89/654 / CEE, 2009/104 / CE, 89/656 / CEE, 2004 / 37 / CE, 2000/54 / CE, 2003/10 / CE, 2009/148 / CE - Legislative Decree 81/2008 - Legislative Decree no. 106 of 03/08/2009.

Emissions in the atmosphere

- Legislative Decree no. 152 of 03/04/2006 - DM 12/7/94 - Dir. 2008/50 / CE - Dir. 2010/75 / UE - D.Lgs. N. 155 of 08/13/2010 and subsequent agg.

Water protection

- Legislative Decree no. 219 of 10/12/2010 - Legislative Decree n. 152 of 03/04/2006 - Dir. 91/271 / CEE, 2000/60 / CE, 2008/105 / CE, 2009/90 / CE, 2013/39 / UE.

Waste disposal

- Legislative Decree no. 152 of 03/04/2006 - Dir. 2008/98 / CE, 94/62 / CE, 2001/118 / CE.

DPI:

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

This sheet has been prepared in accordance with the following rules: - Reg. (EU) N. 453/2010 - Reg. (EC) No. 1272/2008 - Reg. (EC) No. 1907/2006 (REACH) - D.M. 09/09/2002 - Dir. 2001/58 / EC - Dir. 1999/45 / EC - ISO 11014: 2009.

15.2 Chemical safety assessment

Chemical safety assessment not required.

SECTION 16:
Regulatory information

Hazard Classes None.

Hazard statements None.

Abbreviations and acronyms

CLP	Classification Labeling Packaging (Classification, labeling and packaging), Regulation (EC) No. 1272/2008
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals (registration, evaluation, authorization and restriction of chemical substances), Reg. (EC) N. 1907/2006
LD50	Lethal Dose 50 (lethal dose 50%). Amount of substance that causes the death of 50% of the test population
LC50	Lethal Concentration 50 (median lethal concentration 50). Concentration of the substance in the air that causes the death of 50% of the test population
NOAEL	No Observed Adverse Effect Level (dose with no adverse effects observed)
NOAEC	No Observed Adverse Effect Concentration (concentration with no adverse effects observed)
LOAEL	Lowest Observed Adverse Effect Level (lower level where an adverse effect is observed)
ACGIH	American Conference of Governmental Industrial Hygienists
IARC	International Agency for Research on Cancer
EC50	The ECx corresponds to the concentration of a tested substance capable of causing as an effect x% of changes (for example, on the growth) during a specified time interval
ErC50	EC50 in terms of reducing the growth rate
ECHA	European Chemicals Agency PBT Persistent, bioaccumulative and toxic
vPvB	Very persistent and very bioaccumulative

The information contained herein is based on our best knowledge, experience and information received from our suppliers. They are relevant to the handling and treatment of the material, while for use in specific projects it is advisable to contact our Customer Assistance service. LATI S.p.A. is available to provide all the advice and information necessary for the use of the material and the optimization of the production process. Information on the transformation is contained in the technical documentation.

It is the responsibility of the user to adopt the measures for prevention and protection of the health of workers, respecting the national and local laws in force regarding occupational safety.

Distributors and users of the material must send this safety data sheet to all those interested in handling and processing this material. Lati assumes no responsibility for improper or different uses than those reported in the technical literature.