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NUDECPMMA

1. Identification of the substance / preparation and of the company / undertaking

Trade name	NUDEC PMMA.
Name of the product	Polymethylmethacrylate sheets.
Product Use	General application in the construction sector (enclosures, glassing, covers…), thermoforming.
Responsible for placing on the market	
Trade name of the firm	See above.
Emergency number	Emergency call: 112
Official advisory body	National Institute of Toxicology (Madrid, Spain): (+34) 91.562.04.20 Danish Poison Center (Giftlinjen): (+45) 8212.1212

2. Hazards Identification

This product has not been classified as a dangerous substance or preparation according to the Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Label elements	Not applicable
Symptoms related to use	
Inhalation	If heated to high temperatures during the heating process, the product may form vapors or fumes which may cause irritation of respiratory tract.
Skin contact	The prolonged contact with skin does not irritate. In normal process' conditions, the material can be heated at high temperature; in contact with hot material, may cause severe thermal burns.
Eye contact	Solid form or fine dust of the product may cause irritation to ocular mucous or ocular lesions.
Ingestion	Ingestion during handling is not likely. The ingestion of small quantities does not produce noxious effects. It may cause an obstruction in case of ingestion. Seek medical advice immediately.
Adverse environmental effects	This product is not soluble in water. Because of its structure, the product should not be dangerous for aquatic life. Non-biodegradable.
Adverse physicochemical effects	Combustible if exposed to flames.

3. Composition/information on ingredients

Chemical Name	Polymethylmethacrylate. Acrylic Copolymer based on methylmethacrylate.
Composition	≥ 98 %
CAS number	9010-88-2
EINECS O ELINCS number	The product is a polymer, following the European Regulation; registration on the EINECS (European Inventory of Existing Commercial Chemical Substances) inventory is not required.

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Substances presenting a health hazard	The product is not composed by dangerous substances or dangerous preparations according to the Regulation (EC) No 1272/2008.

4. First-aid measures

Route of exposure	
Inhalation	In case of inhalation of gases during the product combustion, move patient into fresh air. Seek medical attention.
Skin contact	In case of burns with molten material, immediately immerse in cold water. Wash immediately with soap and abundant water. In case of material adhering to skin, do not peel material from skin, obtain medical attention and treat the injury as a thermal burn. Seek medical attention.
Eye contact	In case of eye contact, wash immediately with abundant water. After the initial washing, remove the eventual contact lenses and go on washing affected eyes for at least 15 minutes under running water with eyelids held open. Seek medical attention.
Ingestion	Ingestion during handling is not likely. Remove material from mouth. If swallowed, do not induce vomiting: seek medical advice immediately.

5. Fire-fighting measures

Fire-class regulation	A: Solid materials fire, principally of organic nature, that burn with incandescence.
Technical measures	Stop the fire spreading. Call the fire brigade immediately. Evacuate non-essential personnel. Protective clothing, goggles and self-contained breathing equipment should be made available for firemen.
Extinguishing media	
Suitable	Foam. Water sprays (mist). Chemical Powder ABC. Carbon dioxide (CO_2).
Unsuitable	Water jets (stick jets).
Dangerous decomposition products	Toxic gas mixtures are released that mainly contain: Methyl methacrylate, Ethyl acrylate and Carbon Oxides (CO and CO_2).
Special protective equipment	In case of firefighting or risk of exposure to vapors or fumes, wear suitable breathing equipment.

6. Accidental release measures

Personal precautions	Risk of slipping on smooth surfaces.
Environmental protection precautions	This product is not soluble in water. Because of its structure, the product should not be dangerous for aquatic life. Non-biodegradable.

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Refer to a specialist for waste disposal in a safe manner in accordance with local or national regulations.

Cleaning methods

Clean and collect the released product by hand or using vacuum equipment.

7. Handling and storage

Handling

The sheets may be heavy and difficult to handle. They must be carefully handled (do not drag) or using vacuum equipment. Avoid contact with hot or melted material.

Storage

The product should be stored in closed premises that guarantee normal environmental conditions. Store away heating, direct sunlight and/or ignition sources.

Specific uses

No information available.

8. Exposure controls / personal protection

Occupational exposure limit

Particules (respirable dust particules) E (2008): VLA-ED: 3 mg/m^3.
Particules (inhalable dust particules) E (2008): VLA-ED: 10 mg/m^3.

The following values apply to substances which may be evolved during thermal processing:

Substance	CAS number	VLA-ED (mg/m^3)
Methylmethacrylate	0080-62-6	208
Ethylacrylate	0140-88-5	21

Occupational exposure controls

Personal protection

In case of Risk of over exposure to dust, vapor or fumes (during product processing), wear suitable respirator with filter (recommended filter type: P1, EN-143)

Hands protection

The sharpened edges may cause cuts. Wear industrial gloves, EN-388.

Eyes protection

Wear goggles with lateral protections, EN-166.

Body protection

Overall (EN-340).

Hygienic measures

During the operation process is forbidden eating, drinking and smoking.

Environmental exposure controls

Not regulated.

9. Physical and chemical properties

General information.
Aspect

Physical state

Solid.

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Color	Transparent or colored.
Odour	Odourless.
Important health, safety and environmental information	
Ignition point (º C)	>450
Relative density	1,19
Solubility	Attacked by chlorinated aliphatic hydrocarbons, aromatic hydrocarbons, ketones, alcohols, ether and esters.
Solubility in water	Insoluble.
Other information	
Melting point (º C)	>200
Softening point (º C)	90-120
Auto-ignition temperature (º C):	>400
Thermal **decomposition** (º C)	>280

10. Stability and reactivity

The product is stable under normal operating conditions (storage, handling and use). The thermal decomposition starts, approximately, at 280º C.

Conditions to avoid	Avoid proximity or contact with flames. Avoid overheating the product. Do not heat to temperatures exceeding the thermal decomposition.
Materials to avoid	Does not observe dangerous reactions.
Hazardous decomposition products	Toxic gas mixtures are released that mainly contain: Methyl methacrylate, Ethyl acrylate and Carbon Oxides (CO and CO_2).

11. Toxicological information

This product has not been classified as a dangerous substance or preparation according to the Regulation (EC) No 1272/2008. Handling the product in the correct way, it does not have negative repercussions on health, according to the experiences and information which we have.

During the heating process may cause irritation of the skin, eyes and respiratory system.

12. Ecological information

Ecotoxicity	Because of its low solubility, the product should not be dangerous for aquatic life.
Mobility	Because of its physic-chemical properties, the product has low soil mobility. The product has a density up to 1 g/cm^3, it sinks in water. Because of its low solubility, the product should not be dangerous for aquatic life.

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Persistence and degradability	This product is slowly biodegradable.
Bioaccumulative potential	Potential bioaccumulation of the product in environment is slow.

13. Disposal considerations

Where possible, it is preferred recycling than destruction or incineration. The product is good for recycling and is not regarded as hazardous waste. The condition to recycle is the collection and reutilization of exactly the same material. The elimination must be according to local regulations. For further information, '*Recyclability - NUDEC Materials*' document is available.

14. Transport information

Road (ADR) / Rail (RID)	Not restricted for transport.
UN number	Not applicable.
Marine (IMO)	Not restricted for transport.
Air Transport (ICAO/IATA)	Not restricted for transport.

15. Regulatory information

Labelling and Classification CE	Not required.
Symbol(s) EC	Not classified according to Regulation (EC) No 1272/2008.
Wassergefährdungsklasse	NWG: non-hazardous to waters.

16. Other information

All issues of this Material Safety Data Sheet have been modified and/or further details conform to the Regulation EU 1907/2006/EEC (REACH).

The information contained is based on our knowledge of the product, at the date of publishing and it is given quite sincerely. Users are advised of possible additional hazards when the product is used in applications for which it was not intended. This sheet shall only be used and reproduced for prevention and security purposes. The references to legislative, regulatory and codes of practice documents cannot be considered as exhaustive. It is the responsibility of the person receiving the product to refer to the totality of the official documents concerning the use, the possession and the handling of the product. It is also the responsibility of the handlers of the product to pass on to any subsequent persons who will come into contact with the product. (usage, storage, cleaning of containers, other processes) The totality of the information contained within this safety data sheet and necessary for safety at work, the protection of health and the protection of environment.