

Material safety data sheet (MSDS)**UHMW-PE**

Ultra-high molecular weight polyethylene (unfilled)

P1
CD31 - SDS iss 01
Rev No: 2
Rev Date: 01/11/25

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Identification of the substance / preparation and company

Commercial Product Name:	UHMW-PE / PE1000
Use:	Polymer (thermoplastic)
Company (supplier of the safety data sheet):	Plastim Limited Unit 100 - Ashville Business Park Commerce Road, Staverton, Gloucestershire, GL2 9QJ
Emergency telephone number:	Tel. +44 (0)1452 857733 admin@plastim.co.uk
Company Registration Number:	3376659

Hazard identification

Classification:	Not classified (no need for classification)
Label elements:	The product does not require a hazard warning label
Physical / chemical hazards:	Flammable
Environmental hazards	Not classified as dangerous.

Composition / information on ingredients

Chemical characterisation:	Ultra-high molecular weight polyethylene (UHMW-PE / PE1000)
Description:	Semi-finished shapes such rods / plates / tubes.
Hazardous substances:	Product contains no hazardous ingredients liable to be disclosed.

First aid measures

General information:	The product is being classified as non-noxious.
In case of inhalation:	In case the plastic burns and combustion gases are inhaled, remove person to fresh air and keep warm and get medical help if necessary.
In case of skin contact:	Burns caused by molten material on skin need to be rapidly cooled down with water. Do not attempt removal of plastic without medical assistance. If irritation develops, seek medical attention.
In case of eye contact:	Flush eyes well with copious quantities of water. Seek medical attention if irritation persists.
In case of ingestion:	If swallowed, the product is non-noxious. Seek medical attention if irritation develops.

Fire-fighting measures

Suitable extinguishing media:	Water, foam, gaseous and dry extinguishing media
Particular endangerments by fire fighting and hazardous combustion products:	Hazardous combustion products may emerge, apart from harmless water (H ₂ O); carbon dioxide (CO ₂) and mainly carbon monoxide (CO) depending on the amount of available environmental oxygen, containing ketones and aldehyde. Formation of further decomposition and oxidation products depends upon the fire conditions. Under special fire conditions traces of other toxic substances are possible.
Fire fighting:	For fires in enclosed areas, firefighters must use self-contained breathing apparatus and protective clothing should be used.

Accidental release measures

Environmental precautions:	Dispose in accordance with regional regulations. Do not dispose into the drains as small particles may present a physical ingestion hazard to wildlife.
Methods for containment and cleaning up	Sweep and collect dust using a suitable vacuum system. Place in suitable containers for recycling or disposal.

Handling and storage

Advice on safe handling:	For heavier pieces handle with lifting equipment or sufficient manpower. When machining shapes, evacuate swarf to prevent slipping or tripping.
Storage:	Store product dry. Keep storage and working areas sufficiently ventilated. Keep away from any source of flame, heat and ignition. Due to the risk of collapsing, do not stack more than 2 pallets on top of each other. Pallets should not stack on top of each other along aisles.

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Exposure controls / personal protection

Ingredients with occupational exposure limits to be monitored:

Contains no substances with occupational exposure limit values.

Exposure controls Personal (body) protection:

Keep the workplace sufficiently ventilated. Continuous supply of fresh air to the workplace together with removal of processing fumes through exhaust systems is recommended. Avoid breathing in gaseous degradation products and dust that may result by material overheating.

Hand protection:

Wear suitable gloves to protect from heat, abrasion and cutting.

Eye protection:

Wear safety goggles or shield during machining.

Body protection:

Wear working clothes.

Respiratory protection:

Adequate ventilation at workplace is required.

Measures:

Do not eat, drink or smoke while handling the product.

Physical and chemical properties

Physical state:

Solid - (rods / plates / tubes)

Colour:

Product-specific (Natural - Black - Green)

Odour:

Slight, product-specific

Melting point (formulation dependant):

130 °C

Self-ignition temperature:

N/A

Explosion hazard or limit:

Non explosive

Density (20 °C):

0,93 g/cm³

Solubility (in water 20 °C):

Insoluble

Stability and reactivity

Conditions to avoid:

Temperatures above melting point (130 °C)

Material to avoid:

Strong oxidants

Hazardous decomposition products:

Carbon monoxide (CO)

CAS-No. 630-08-0

Carbon dioxide (CO₂)

CAS-Nr. 124-38-9

Toxicological information

Persistence and degradability:

The material does not harm the environmental but not classified as biodegradable.

Legal specifications:

The product does not require a hazard warning label.

Disposal considerations

Product waste treatment methods:

Dispose in accordance with local and national regulations. The material can be recycled by extrusion process into pellets for further processing.

Transport information

Specific hazards:

Not classified as hazardous under transport regulations.

Packaging information

Wooden pallets, bags within cardboard boxes or plastic boxes.

Other information

Plastim Limited do not manufacture the product described in this safety data sheet. Information is extracted from the manufacturer's provided data. The actual manufacturer's original safety data sheet is available upon request.

The information set forth herein has been gathered from standard reference materials and based on our current knowledge and experience. Such information is offered solely for your consideration, investigation and verification, it is not suggested or guaranteed that the hazard precautions or procedures mentioned are the only ones that exist. We make no warranties (expressed or implied) with respect to the use of such information or the use of the specific material identified herein in combination with any other material or process, and assumes no responsibility therefor.