



3D Industrie
Additive Manufacturing
by Maria & Johannes Lutz



PC FILSHAPER

IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

Chemical name of the product	Polycarbonate (PC)
Recommended use	Material for printing in FDM technology
Chemical type	Amorphous thermoplastic polymer

HAZARD IDENTIFICATION

Safety hazards caused by excess exposure to chemicals	
Eye contact	Dust can cause mechanical irritation
Skin contact	Working with heated material can result in skin burns
Skin absorption	Unknown
Consumption	Unknown
Inhaling	Dust and gas produced when processing material can cause irritation

COMPOSITION/INFORMATION ON INGREDIENTS

	CAS Number	Contents
Polycarbonate	25037-45-0	92 ~ 99,8%
Antioxidant	-	0,1 ~ 5%
Other substances	-	0,1 ~ 3%

FIRST AID MEASURES

Eye contact	Rinse immediately, thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor
Skin contact	Remove the contaminated clothing, wash skin with soap and cold water. If skin irritation persists consult a doctor

Eye contact	Rinse immediately, thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor
Ingestion	Material should not be ingested. Call a physician immediately. Do not induce vomiting without medical advice
Inhaling	Remove to fresh air. Consult a doctor if needed

FIRE-FIGHTING MEASURES

Extinguishing media	Water, carbon dioxide (CO ₂), extinguishing powder
Hazardous gas produced in combustion	Carbon oxides
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment

ACCIDENTAL RELEASE MEASURES

Personal precautions	Protective gloves, dust mask, in case of excess dust generation
Environmental precautions	Do not flush into surface water or sanitary sewer system or soil. Keep out of waterways
Methods for cleaning up	Pick up and transfer to properly labeled containers

PRECAUTIONS FOR SAFE HANDLING AND STORAGE

Advice on safe handling	handle in accordance with good industrial hygiene and safety practice, do not eat and smoke when using material
Safe storage	keep containers tightly closed in a dry, cool and well-ventilated place, away from heat and ignition sources, protect from direct sunlight, rain and avoid sudden changes in temperature

INDIVIDUAL PROTECTION MEASURES

Eye/face protection	Safety glasses with side-shields
Skin and body protection	Impervious clothing
Respiratory protection	In case of excess dust generation wear dust mask
Hand protection	Safety gloves

PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Fiber
pH	No data available
Odor	Gentle
Density	1,15-1,25 g/cm ³
Autoignition temperature	above 400°C
Specific Gravity	No data available
Vapour pressure	No data available
Vapour density	No data available
Water solubility	Insoluble in water
Solubility in other solvents	Soluble in acetone, methyl ethyl ketone, dichloromethane insoluble in alcohol, mineral oils, aliphatic solvents

STABILITY AND REACTIVITY

Chemical stability	Stable under normal conditions
Conditions to avoid	Heating up, source of fire
Incompatible materials	Strong oxidizing agents, strong bases and acids
Hazardous decomposition products	Phenol, bisphenol A, carbon monoxide, carbon dioxide (CO ₂), aldehyde

TOXICOLOGICAL INFORMATION

Refer to point 2.

ECOLOGICAL INFORMATION

Toxicity	Should not be harmful for aquatic organism
Persistence and degradability	Persists in environment, not easily biodegradable
Bioaccumulation	No data available
Mobility	Not mobile in soil

DISPOSAL CONSIDERATIONS

Dispose of contents/container in accordance with local/regional/national/international regulations. Avoid release to the environment. Dispose of waste in accordance with environmental legislation. Waste characteristics and the compliance of the disposal process with the law are exclusively the responsibility of the waste producers.

In case of unused and unopened products, preferred options include shipment to licensed recycling, recovery, incineration or other thermal waste disposal.

TRANSPORT INFORMATION

Not classified as hazardous according to transport regulations.

REGULATORY INFORMATION

REACH / EU EINECS List	In compliance with and/or on the list
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OTHER INFORMATION

Product should be handled in accordance with good industrial hygiene, safety practice and all regulations. The information is being provided solely as a guideline for the safe handling, use, consumption, processing, storage, transportation, disposal and release of the Materials. The information may not be sufficient for such purposes, as it is based on producer's knowledge at the time of creating the document, the user should not place any reliance on the information provided.