

MATERIAL SAFETY DATA SHEET

valid for the whole range of our cut or milled aramid fibres
in accordance with regulation (EC) N°1907/2006 - REACH

1 - PRODUCT AND COMPANY IDENTIFICATION

Product name	para-Aramid (cut or milled aramid fibres)
Relevant uses	Injection moulding, thermosetting composite materials, heat protective clothing, elastomer reinforcement, ballistic protection
Uses advised against	None
Company name	APPLY CARBON S.A.S
Address	ZA Lanveur F-56440 LANGUIDIC France
Telephone number	+33 2 97 65 10 89
Fax number	+33 2 97 65 11 20

2 - HAZARDS IDENTIFICATION

Main product risks	None (in solid form)
Specific risks	Processing para-aramid products can generate microscopic fibrous dust particles and lead to irritations. Prolonged inhalation of breathable dust at high concentration may cause lung damage.

Product and its components **ARE NOT CLASSIFIED AS DANGEROUS** according to the decree of 07/12/2009 and regulations (EC) n°1272/2008 (CLP), 67/548/EEC or 1999/45/EC.

3 - COMPOSITION / COMPONENT INFORMATION

Substance/preparation	80-98% (w/w)
Standard or chemical name	poly-(paraphenylene-terephthalamide) (with traces of water and fiber finish)
CAS number	26125-61-1
ENCS/ISHL-number	(7)-2384
GHS/CLP or hazard symbols	Not applicable
R-phrase	None
Substances of Very High Concern (SVHC)	None or below 0.1%
CMR	None or below 0.1%
Other components	Absorbed water, Sodium phosphate, Fibre finishes (< 1.0%)

4 - FIRST AID MEASURES

General advice	Dust may be irritating to the respiratory tract and cause symptoms of bronchitis. Treat eye damage, cuts, burns, skin irritation and other skin lesions symptomatically - like other injuries of the same kind. Wash thoroughly with plenty of water. Get medical attention if symptoms occur.
Inhalation (fine fibrous dust)	Move subject into fresh air. Seek medical attention if symptoms persist.
Ingestion	Rinse mouth and drink water. No medical treatment required.

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5 - FIRE-FIGHTING MEASURES

Suitable extinguishing media	All usual extinguishing products are allowed.
Specific hazards	Not flammable or combustible under normal uses. Do not inhale explosion or combustion vapors (carbon oxides, nitrogen oxides, volatile organic compounds, hydrogen cyanide).
Special protective equipment for firefighters	Wear full-face, self-contained breathing apparatus to avoid inhalation of fumes or decomposition products.
Specific methods	None

6 - ACCIDENTAL RELEASE MEASURES

Individual precautions	None
Environmental precautions	Do not let product enter drains.
Cleaning methods	Avoid dust formation. Clean up with sweep or vacuum. Use suitable containers for disposal.

7 - HANDLING AND STORAGE

Handling	Avoid prolonged or repeated skin and eyes contact.
Technical measures/precautions	Fiber dust and fly should be removed with approved industrial vacuum cleaning or ventilation. Compressed air cleaning increases airborne dust levels and must be avoided. Do not touch moving threadlines.
Storage	Store in a cool, dry and well-ventilated area. Keep away from direct sunlight.

8 - EXPOSURE CONTROLS / INDIVIDUAL PROTECTION

Engineering measures:	Ensure adequate ventilation. Accumulation of static charges can cause explosions in solvent and dust laden atmospheres.
Control parameters:	See local regulations. In their absence, it is recommended that the average concentration of respirable fiber-shaped particles (RFP's) derived from para-aramid products be maintained below 1 RFP/ml of work place air.
Personal protective equipment:	Use appropriate certified respirator if control limits are exceeded and processing conditions require it (poor ventilation, fine dust production). FFP2 recommended.
-Respiratory protection	Gloves and protective clothing.
-Skin protection	Safety glasses with side shields.
-Eye protection	Eat, drink and smoke in separate areas. Washing facilities and safety showers must be available.
Hygiene measures:	

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9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	solid
Form	short fibers (filament)
Colour	golden yellow
Odour	none
Melting point/range	does not melt
Decomposition temperature	carbonization/pyrolysis start above 500°C
Solubility in water	not soluble
Solubility in organic solvents	not soluble
Solvent content	none
pH/Boiling point/Evaporation	no information available
Relative density	1.44-1.45 g/cm ³ (20 °C)
Viscosity/Flash point/Auto-ignition	no information available
Flammability	not flammable or combustible

10 - STABILITY AND REACTIVITY

Stability	Para-aramid products are highly resistant to chemicals and heat.
Conditions to avoid	Strong acids/bases and temperatures over 932°F (500°C) will cause decomposition of the products.
Hazardous decomposition products	Carbon dioxide, nitrogen oxides, hydrogen cyanide, hydrocarbons, anhydrous aldehydes, ammonia.

11 - TOXICOLOGICAL INFORMATION

Acute Toxicity	LD50 > 7,500 mg/kg orally in the rat.
Sensitization	None
Chronic Toxicity	<p>A 2-years inhalation study with rats using specially prepared breathable fibrous dust did not result in any lung damage at 2.5 respirable fiber-shaped particles (RFP)/ml. The onsets of fibrotic changes in the lung were barely detectable at concentrations of 25 RFP/ml.</p> <p>At extremely high concentrations (100 and 400 RFP/ml) the rats developed unequivocal signs of lung overloading and fibroses. At these concentrations some of the female rats (but none of the males) also developed benign proliferative keratin (horn) cysts, in addition to fibroses, in the lung.</p>
Human experience	<p>Respirable fiber-shaped particles of para-aramid can cause a transitory, mild irritation of the skin, the mucosa or the eyes. There are no other known negative effects on human.</p> <p>Not carcinogenic and not mutagenic (Group 3).</p>
Target Organ effects	Skin, Respiratory system.

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12 – ECOLOGICAL INFORMATION

Ecotoxicity	No information available
Mobility in soil	No information available
Persistence and degradability	Para-aramid products are stable, persistent and not biodegradable.
Bioaccumulation	No information available

13 – DISPOSAL CONSIDERATIONS

Waste disposal	Aramid waste can be landfilled as non-hazardous industrial solid waste or incinerated in an authorized industrial waste disposer. Do not flush into surface water or sanitary sewer system. See local regulations.
Contaminated packaging	No specific recommendations.

14 – TRANSPORT INFORMATION

Para-aramid products are **not classified as dangerous** in terms of national and international transport regulations – **no specific transport label required. No CLP-labeling (not applicable).**

15 – REGULATORY INFORMATION

These products are not submitted to regulations (EC) n°1272/2008 (CLP), 67/548/EEC and n°1999/45/EC, nor under PDSCL, PRTR or ISHL. It complies with TSCA and DSL regulations.
This MSDS has been established in accordance with REACH regulations (EC) N°1907/2006 and N°453/2010.

16 – OTHER INFORMATION

We believe that the information contained in this safety data sheet is correct to the best to our knowledge. However, the information contained in this sheet is not exhaustive. This safety data sheet does not anticipate all the circumstances in which the product may be used, nor all the physical and mental characteristics of each individual responsible for its transport or transformation. It is the duty of the user to test and use this product safely, in accordance with the laws and regulations in force. Unless otherwise stated in writing, we accept no responsibility for complaints or damage caused related to the use of this product. For all additional information, please contact the QSE Department of Apply Carbon.

Apply Carbon transforms ARAMID fibers only by cutting, at very various lengths, to meet the very large needs of its customers.

All the informations given in this Material Safety Data Sheet are excerpt from these of its aramid fibres suppliers.