

# **SAFETY DATA SHEET Product Name: Recycled Nylon 6 with recycled Carbon Fibre fill - OrCA®**

Revised 22nd January 2023

NOTE: This product is not classified as hazardous. A safety data sheet for this product is provided by us recognising that our customers have systemic controls in place.

## **1. Identification of Product/Substance/Preparation and the Company/Undertaking**

### **Identification of the Product**

Trade name: OrCA®, Recycled Nylon 6, Cornish Nylon®, Marine Nylon®

### **Company/Manufacturer Identification**

Fishy Filaments Ltd

Compound 3

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### **Advice on SDS and Technical Help Contact**

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## **2. Hazards Identification**

### **Particular Information Pertaining to Specific Risk for Human/Environment**

- Not classified as dangerous in accordance with EU Directive 1999/45/EC
- The product does not require a hazard warning label in accordance with Directive 67/548/EC.

## **3. Composition/Information on Ingredients**

**Chemical characterization:** Extruded Polyamide 6 (Nylon 6) with added milled and cut strand Carbon Fibre

**Description:** Semi finished-product as monofilament or micro-pellet

### **Composition:**

Will contain milled and cut strand carbon fibre (CAS NO. 7440-44-0)

May contain residual amounts of monomer Caprolactam (CAS No. 105-60-2)

## **4. Route of Exposure and First Aid Measures**

### **Route of Exposure:**

**Skin Contact:** Dust and particles generated during machining in contact with skin may cause irritation. Hot or molten polymer can burn the skin.

**Eye Contact:** Dust and fine particles generated during machining may cause mechanical irritation.

**Vapor** from hot/molten product can cause irritation.

**Inhalation:** Dust, particles and chips can be generated during machining of cast shapes.

**Dust** may irritate the mucous membranes of the nose and throat.

**Ingestion:** Ingestion is not likely root of exposure, although the generated dust, particles and chips could be swallowed.

### **First Aid Procedure**

**Eye Contact:** Wash affected eyes for at least 15 minutes under running water with eyelids open. If irritation develop or persists, obtain medical attention.

**Skin Contact:** Wash thoroughly with soap and water. For irritation, flush the skin with cool running water.

Wash the affected area with mild soap and water. Obtain medical attention if irritation develop or persists.

If hot or molten polymer burns the skin, immerse the burned area in cold running water and obtain medical attention.

**Inhalation:** Remove person to a fresh air. If irritation develop or persists, obtain medical attention.

**Ingestion:** Use first aid techniques including coughing to remove obstruction. If swallowed, obtain medical attention.

## 5. Fire-Fighting Measures

**Suitable Extinguishing Media:** Water, foam, carbon dioxide

**Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases:** In the event of fire, the following toxic vapours can be released: Carbon dioxide, CO<sub>2</sub>, carbon monoxide, CO, oxides of nitrogen, NO<sub>x</sub> and traces of hydrogen cyanide, HCN and hydrogen sulphide/sulphur dioxide.

**Special Protective Equipment for Fire-Fighters:** Fire-fighters must use self-contained breathing apparatus.

## 6. Accidental Release Measures

**Personal precautions:** Refer to protective measures listed in section 7 and 8.

**Environmental Precautions:** Dispose in accordance with local and national regulations. Do not dispose into the drains/surface waters/ground waters. Small particles may present a physical ingestion hazard to wildlife.

**Methods for Cleaning Up:** Sweep/shovel up. Collect dust using a suitable vacuum system. Send in suitable containers for recycling or disposal.

## 7. Handling and Storage

**Handling:** No special precautions are necessary beyond normal good industrial hygiene and safety practices. Handle heavier parts either with lifting equipment or sufficient manpower.

**Engineering Measures:** Provide suitable ventilation and dust-extraction system to minimize exposure. Use local mechanical exhaust ventilation at sources of air contamination such as processing equipment/ cutting machines.

**Storage:** Store in a dry place away from water and high relative humidity.

## 8. Personal Protection

**Respiratory Protection:** Use suitable respiratory protection equipment (e.g. NIOSH approved mask) when airborne exposure limits are reached or exceeded.

**Hand Protection:** This product does not present particular skin concern requiring special protection beyond normal good industrial hygiene and safety practices which include wearing suitable gloves to protect from abrasion and cutting.

**Eye Protection:** Eye contact with this solid product is unlikely. However in machining areas adequate eye protection (safety goggles) should be worn to protect from small particles generated by machining or cutting.

**Skin Protection:** Minimize skin contact by following good industrial hygiene and safety practices, although this product does not present significant skin concern.

## 9. Physical and Chemical Properties

**Form:** Solid

**Appearance:** Monofilament or micro-pellet

**Colour:** Black

**Odour:** Odourless

**Melting Temperature:** 220 - 240 C

**Flash Point:** Estimated to be around 370 C

**Density:** 1.10 – 1.30 g/cm<sup>3</sup>

**Solubility in Water:** Insoluble

## 10. Stability and Reactivity

**Conditions to Avoid:**

**Temperatures** above recommended service temperature may cause deformation of product

**Materials to Avoid:** Strong acids, strong oxidizing agents and certain salts may have detrimental effect on product.

**Hazardous Decomposition Products:** Thermal decomposition occurs at temperatures above the melting temperature. Combustion products are: carbon dioxide, CO<sub>2</sub>, carbon monoxide, CO, oxides of nitrogen, NO<sub>x</sub> and traces of hydrogen cyanide, HCN.

## 11. Toxicological Information

Fishy Filaments has not conducted toxicity studies on this material. However based on our experience and the information available the following statement has been derived from the structure of the product.

### Acute toxicity

Assessment of acute toxicity:

Contact with molten product may cause thermal burns.

### Irritation

Assessment of irritating effects:

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

Serious eye damage/irritation: May cause mechanical irritation.

### Respiratory/Skin sensitization

Assessment of sensitization:

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

### Germ cell mutagenicity

Assessment of mutagenicity:

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

### Carcinogenicity

Assessment of carcinogenicity:

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

### Reproductive toxicity

Assessment of reproduction toxicity:

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

### Specific target organ toxicity (single exposure)

Assessment of STOT single:

not applicable

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

### Aspiration hazard

No aspiration hazard expected.

### Other relevant toxicity information

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

## 12. Ecological information

Fishy Filaments has not conducted environmental toxicity or biodegradable studies on this material.

This material (polymer) is not classified as biodegradable.

**12.1. Toxicity**

Assessment of aquatic toxicity:

The product has not been tested. The statement has been derived from the structure of the product. There is a high probability that the product is not acutely harmful to aquatic organisms.

**12.2. Persistence and degradability**

Assessment biodegradation and elimination (H<sub>2</sub>O):

Experience shows this product to be inert and non-degradable.

The product is virtually insoluble in water and can thus be separated from water mechanically in suitable effluent treatment plants.

**12.3. Bioaccumulative potential**

Bioaccumulation potential:

The product will not be readily bioavailable due to its consistency and insolubility in water.

**12.4. Mobility in soil**

The product has not been tested

**12.5. Results of PBT and vPvB assessment**

The product has not been tested

**12.6. Other adverse effects**

The product does not contain substances that are listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

**13. Disposal Considerations**

Recycle or dispose in accordance with local and national regulations.

**14. Transport Information**

This product is not defined under national/international road, rail, sea and air transport regulations as a hazardous material.

**15. Regulatory Information**

As this product is made from a recycled plastic waste and recycled carbon fibre waste from traceable sources, as defined under Directive 2008/98/CE and Directive 2006/12/EC, it is not controlled under REACH

**16. Other Information**

**Prepared by:** Ian Falconer, Fishy Filaments Ltd.

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