01. Identification of the substance/mixture and of the company

Product name: Elevator Mechanism Brush - Nylon Bristles

Code number(s): EMB-002 NYLON BRUSH

Purpose of product: To clean around the forceps elevator area of duodenoscopes and other endoscopes with an elevator mechanism such as ultrasonic endoscopes.

Manufacturer/supplier: Healthmark Industries Co.

Address: 18600 Malyn Blvd. / Fraser, MI 48026

Telephone/Fax/Email: (800) 521-6224 / (586) 491-2113 / healthmark@hmark.com

Emergency telephone number: (800) 424-9300 (24 hour service)

02. Hazards identifications

Classification of the substance or mixture: Synthetic monofilaments of polyamide 6.12

Pigment:

Adverse environmental and human health effects: All ingredients comprising this resin are bound in a thermoplastic polymer. These substances do not present a respiration hazard unless the polymer is ground to a powder of repairable size and the dust is inhaled. All dusts are potentially injurious to the respiratory tract if respirable particles are generated and inhaled in sufficiently high concentrations. Good industrial hygiene particles, as with all dusts should include precautions to prevent inhalation of respirable particles. Material is not known to contain toxic chemicals.

03. Composition/information on ingredients

Description of the mixture: Synthetic monofilaments of polyamide 6.12

Hazardous ingredients: N/A

04. First Aid Measures

General information: N/A

Following inhalation: No specific intervention indicated, as the compound is not likely to be hazardous by inhalation. If exposed to fumes from overheating or combustion, move to fresh air. Consult a physician if symptoms persist.

Following skin contact: Material is not likely to be hazardous by skin contact.

Following eye contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

Following ingestion: No specific intervention is indicated as the material is not likely to be hazardous by ingestion. Consult a physician if necessary.
05. **Firefighting measures**

*Suitable extinguishing media:* Foam, carbon dioxide, dry chemical, water

*Unsuitable extinguishing media:* N/A

*Special hazards arising from the substance and combustion products:* N/A

*Advice for firefighters:* N/A

06. **Accidental release measures**

*General information:* N/A

*Environmental precautions:* N/A

*Additional information:* N/A

07. **Handling and storage**

*Precautions for safe handing:* Because of the Nylon 6.12 hygroscopic properties, it is important to avoid an environment with high humidity levels or any water contact with the packing boxes. It is important the material will not be directly exposed to sunlight nor any type of excessive heat sources (heaters, electric motors) that might cause the material drying or degradation. Although Nylon 6.12 is an inert plastic material, we recommend the use of every lot in a period of time no longer than five (5) months since the elaboration date. If storage conditions have been appropriate, the characteristics of the material will be perfectly preserved.

*Fire Preventions:* Keep away from oxidizers, heat, and open flames.

*Technical measures and storage conditions:* The boxes of Nylon 6.12 monofilaments must be stored in a closed and fresh place, especially in a dry atmosphere between 22-25 ºC. temperature average. It is recommended not to store more than four (4) boxes one over the other in order to avoid the material compressing too much.

08. **Exposure controls/personal protection**

*Control parameters:* Provide adequate general and local exhaust ventilation. Use good work practices. Do not breathe dusts or molten polymer vapors

*Personal protective equipment:* See below.

*Hand protection:* Not necessary

*Respiratory protection:* To protect from any kind of irritation or allergic reaction, use protective equipment like dust respirators, when this product is used into high speed cutting or rounding machines.

*Eye protection:* Safety glasses recommended.

*Advice on general occupational hygiene:* N/A

*Environmental exposure controls:* N/A

09. **Physical and chemical properties**
Appearance: Inert solid

Physical state: Solid

Color: Black

Odor: Characteristic

Safety relevant basic data: N/A

Explosion hazard: N/A

Density: 1.05-1.07

pH: N/A

Initial boiling point/range: °C /°F N/A

Solubility: Insoluble in water. Miscible with many organic solvents.

Flash point: °C /°F N/A

Ignition temperature: >350°C

Melting point: 208-215°C

Conditions to avoid: Heating >340°C. Keep the product away from any type of ignition form, like sparkles, hot surfaces, or the direst exposure to heat sources like daylight, electric heaters, and electric motors.

Incompatible materials: Strong acids, bases, and oxidizing agents.

10. Stability and reactivity

Conditions to avoid: Heating >340°C. Keep the product away from any type of ignition form, like sparkles, hot surfaces, or the direst exposure to heat sources like daylight, electric heaters, and electric motors.

Incompatible materials: Strong acids, bases, and oxidizing agents.

Hazardous decomposition products: Carbon monoxide, ammonia, aldehydes.

11. Toxicological information

Information on toxicological effects: LD50 rat, oral: 6100mg/kg

Irritation: May cause irritation of the eye conjunctiva. May possible cause fine vacuolar lesions of the cornea. Prolonged contact with the skin may cause defetting of the skin, causing cracking with possible dermatitis secondary infection.

Sensitization: N/A

Inhalation: May cause irritation of the nose and throat. At high concentrating, may cause narcosis with weakness, drowsiness and unconsciousness.

Practical experiences: N/A
12. Ecological information

Terrestrial toxicity: N/A

Aquatic toxicity:

Mobility:

Persistence and degradability: Susceptible to long-term degradation.

Bio accumulative potential: N/A

Results of PBT and vPvB assessment: N/A

Other adverse effects: N/A

13. Disposal considerations

Product: It is recommended that you select an alternative listed below according to the following order of preference, depending on environmental impact.

1) Recycle or rework if at all possible.
2) Incinerate material at an approved facility.
3) Treat at an acceptable waste treatment facility or municipal waste treatment plant after proper testing and approval of waste samples.

Please refer to the appropriate local, state, and federal regulations.

Contaminated packaging: N/A

Uncontaminated packaging: N/A

14. Transport information

UN-No: N/A

Proper shipping name: N/A

Classification code: N/A

Packing group: N/A

Hazard label: N/A

15. Regulatory information

Material safety evaluation: The plastic components of this material have been approved under 21 CFR part 178.3297 “colorants for polymers” and 21 CFR 177.1500 “nylon resins.”

Regulation on combustible liquids:

Class according 2009/104/EG (BetrSichV): N/A

Water hazard class: N/A

Storage according TRGS 510 (Storage of hazardous substances in non-stationary containers): N/A
16. Other information

Recommended application: N/A

Relevant R-, H-, and EUH-phrases: N/A

The information supplied in this Safety Data Sheet is designed only as a guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and beliefs at the date of the publication however no guarantee is made to its accuracy. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other processes.

2020-03-06 slatta