

ELASTOCYL™

CNT elastomers concentrates

1. Identification of the product and the company

Trade Name:	ELASTOCYL™ X1-FKM MB
Type of product:	Carbon/Fluoropolymer mixture
General use:	Product for the production of technical rubber
Company:	Nanocyl S.A. Rue de l'Essor, 4 B-5060 Sambreville Belgium
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2. Hazards identification

This product is not dangerous product for health and environment according regulation EC N° 1272/2008 and regulation OSHA GHS 29 CFR 1910.1200.

Hazards classification: not classified

Label elements including precautionary statements

- * Pictograms: not applicable
- * Signal words: not applicable
- * Hazard statements: not applicable
- * Precautionary statements: not applicable

Other hazards which do not result in classification:

Thermal decomposition can lead to the release of toxic and corrosive gases.

3. Composition/information on ingredients

Components	EC N°	CAS N°	% (wt.)	Classification
<i>1-Propene, 1,1,2,3,3,3-hexafluoro-, polymer with 1,1 difluoroethene</i>	618-470-6	9011-17-0	80-95 %	/
<i>Short tangled MWCNTs</i>	936-414-1	/	5-20 %	/

4. First aid measures

After skin contact:	In case of contact with molten product, immediately flood the affected area with cold water. Do not pull solidified product away from the skin. In case of exposure to decomposition products: wash off soap and water. Immediately apply calcium gluconate gel 2.5% and massage into the affected area using rubber gloves; continue to massage while repeatedly applying gel until 15 minutes after pain is relieved. Transport to nearest medical facility for additional treatment.
Eye contact:	Hold the eyes open and rinse with water for a sufficiently long period of time (at least 10 minutes). Obtain medical attention if pain, blurred vision, swelling, burning or redness persist.
After inhalation:	If vapours are inhaled, move the person into fresh air, keep warm and allow to rest. If breathing is difficult, oxygen may be administered and medical attention should be obtained. Keep under medical supervision for at least 48 hours.
Ingestion:	Get medical if necessary. Have victim rinse mouth out with water. If conscious give two glasses of water. Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration, rinse mouth and repeat administration of water.

5. Fire-fighting measures

Suitable extinguishing media:	Water fog, Foam, Carbon Dioxide, Dry Chemical.
Unsuitable extinguishing media:	High volume water jet.
Specific hazards:	/
Protective equipment's:	Wear self-contained breathing apparatus. Wear suitable protective clothing (acid resistant).

Combustion products:	May form toxic materials, carbon monoxide, carbon dioxide, hydrocarbons, gaseous hydrogen fluoride (HF), fluoride decomposition products.
Further information:	Water used to extinguish fire should not enter drainage systems, soil or stretches of water. Ensure that there are sufficient retaining facilities for media used to extinguish fire.

6. Accidental release measures

Personal precautions:	Ensure adequate ventilation. Keep away from open flames, hot surface and source of ignition. Equip cleanup crew with proper protection (see chapter 8). Avoid contact with skin, eyes and clothing with molten product. Do not inhale vapours. Refer to protective measures listed in sections 7 and 8.
Environmental precautions:	Collect for disposal; should not be released into the environment. Avoid discharge to natural waters, sewers and biological waste water treatment plants.
Spill procedures:	Collect the product, it could cause falls (danger of slipping). If molten, allow material to cool and place into an appropriate marked container for disposal.

7. Handling and storage

Handling:	No specific requirements necessary, if handled at room temperature. Avoid spilling the product, as it might cause falls. When bringing the material to processing temperatures gases might develop. Provide appropriate ventilation for such processing conditions. Do not overheat.
Storage:	Keep only in the original closed container in a dedicated place. Keep containers in a cool, dry place with adequate ventilation. Keep away from open flames and high temperature.

8. Exposure controls / Personal protection

Components with workplace parameters:

Provide local ventilation appropriate to the product decomposition risk. Apply technical measures to comply with the occupational exposure limits.

Particulates not otherwise classified (inhalable): TWA (8h): 10mg/m³ (dust)

Component	Country	Short-term values	Long-term values
Hydrogen fluoride anhydrous	WELs ; Great Britain (EU) ACGIH ; USA	2.5 mg/m ³ ; 3 ppm /	1.5 mg/m ³ ; 1.8 ppm 0.5 ppm

Carbonyl difluoride	WELs ; Great Britain (EU) ACGIH ; USA	/ 5 ppm	2.5 mg/m ³ 2 ppm
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Personal protective equipment:

- Hand protection: Wear heat resistant gloves when handling molten material. Wear protective gloves.
- Skin and body protection: Wear chemical resistant gloves and other clothing as required to avoid contact.
- Respiratory protection: Wear appropriate respirator when ventilation is inadequate and the product is heated. Do not breathe dust/fume/mist/vapours/spray.
- Eye protection: Chemical goggles or safety glasses.

In case of contact, ensure prompt removal from eyes, skin and clothing. Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and leaving work. Facilities storing or utilizing this material should be equipped with an eyewash facility. Change contaminated clothing immediately.

9. Physical and chemical properties

- Form and Color: black solid
- Odor: odorless
- Melting point/range: not determined
- Boiling point/range: not applicable
- Viscosity: not determined
- Density: 1.8-2.0 g/cm³
- Solubility in water: insoluble
- pH: not determined
- Thermal decomposition: not determined

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. Stability and reactivity

- Stability: Stable under normal handling and storage conditions. Hazardous polymerization will not occur.
- Materials to avoid: Alkali metals (molten form).
- Conditions to avoid: To avoid thermal decomposition, do not overheat.
- Hazardous decomposition: No hazardous decomposition products known at room temperature. At high temperature, may form toxic products: gaseous hydrogen fluoride (HF), fluoride decomposition products.

11. Toxicological information

Acute toxicity, oral:	No data available.
Acute toxicity, dermal:	No data available.
Inhalation:	No data available.
Skin irritation:	No data available.
Ingestion:	No data available.
Cytotoxicity:	No data available.
Carcinogenicity:	No data available.

When used and handled according to specifications, the product does not have harmful effects according to our experience and the information provides to us. From the toxicological point of view, the material behaves as the base polymer if there is no dust formation and the operators follow the manipulation instructions of Section 7 and 8.

12. Ecological information

Biodegradability:	No biodegradation expected.
Toxicity to fish:	No data available.
Toxicity for daphnia:	No data available.
Toxicity for algae:	No data available.
Environmental precautions:	Avoid losses to the environment whenever possible. Contains one or more environmentally hazardous substances.

13. Disposal considerations

Product:	If the material becomes a waste, consider it as special waste. It can be destroyed by incineration in accordance with local, state and federal regulations. For all countries, the disposal methods must be in compliance with national and provincial laws and any municipal or local by-laws. The incinerator must be equipped with a system for the neutralisation or recovery of HF.
Container:	Empty containers can be landfilled after have been emptied as thoroughly as possible, when in compliance with the Environmental Protection Regulation and with local, state and federal regulations.

14. Transport information

According to national and international guidelines, which regulate the road-, rail-, air-, and sea transport, this product is classified as not dangerous.

15. Regulation information

REACH Status: the substance(s) in this product has (have) been Pre-Registered and/or Registered, or are exempted from registration according to EEC Regulation REACH 1907/2006.

All components of this product are listed on the following chemical inventories: Toxic Substances Control Act (TSCA-USA), European Inventory of Existing Commercial Chemical Substances (EINECS), Canadian Domestic Substance List (DSL) or non-Domestic Substances List (NDSL), Japanese Existing and New Chemical Substance (ENCS), Korean Existing Chemical Substance (ECL), Australian Inventory of Chemicals Substance (AICS), Philippines Inventory of Chemicals and Chemical Substances (PICCS), Swiss Giftliste 1 Inventory of Notified New Substances, Chinese Chemical Inventory of Existing Chemical Substance (IECS) and Taiwan Existing Chemical Substance Nomination (ECN).

This product contains one or more substance(s) which is/are subject to a TSCA Section 5(e) consent order that imposes certain restrictions on handling, storage, distribution, use and disposal. Contact Nanocyl S.A. for details.

In Canada, since a component of this product is not listed on the Canadian Domestic Substance List (DSL) or non-Domestic Substances List (NDSL), schedule 5 of the New Substances Notification Regulations (Chemicals and Polymers) of the Canadian Environmental Protection Act, 1999, have been granted.

Labelling according to GHS Directive (CLP/OSHA)

Symbol(s) : /

H Phrase(s) : /

P Phrase(s) : /

16. Other information

The contents and format of this MSDS are in accordance with EEC Regulation REACH 1907/2006 art.32, EEC Regulation 1272/2008 (CLP/GHS) and OSHA GHS Regulation 29 CFR 1910.1200, and its amendments.

Vertical lines in the left hand margin indicate an amendment from the previous version.

Disclaimer:

Nanocyl S.A. provides the information contained herein in good faith and makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of this material.