

Date: 9 June 2009

Revision N°2

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Supersedes: 13 November 2008

PLASTICYL™ HDPE1501 Material Safety Data Sheet

1. Identification of the product and the company

Trade Name: PLASTICYL™ HDPE1501
Type of product: Carbon/Polyethylene polymer mixture

Company: Nanocyl sa
Rue de l'Essor, 4
B-5060 Sambreville
Belgium

Phone: + 32 71 750 380 (office hour)
Fax: + 32 71 750 390
E-mail: info@nanocyl.com

2. Hazards identification

This product is not dangerous product for health and environment.

3. Composition/information on ingredients

Components	N° CAS	% (wt.)	Classification
Polyethylene	9002-88-4	80 – 85 %	/
Synthetic graphite (Carbon nanotubes)	7782-42-5	15 - 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. 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.

Nanocyl S.A.

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B-5060 Sambreville
BELGIUM

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US contact

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Ingestion: Get medical if necessary. No specific measures have to be taken if the product is swallowed.

5. Fire-fighting measures

Suitable extinguishing media: Water fog, Foam, Carbon Dioxide, Dry Chemical.

Specific hazards: /

Protective equipments: Wear self-contained breathing apparatus. Wear suitable protective clothing.

Combustion products: May form toxic materials, carbon monoxide, carbon dioxide, hydrocarbon and aldehydes.

6. Accidental release measures

Personal precautions: No specific measures are necessary. Avoid contact with skin, eyes and clothing with molten product. Do not inhale vapours.

Environmental precautions: No special measures required.

Spill Procedures: Collect spilled polymer, pellets; 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, forming: ethylene, hydrocarbon substances and traces of formaldehyde, acrylaldehyde, formic acid and acetic acid. Provide appropriate ventilation for such processing conditions. Take precautionary measures against explosion risks, as all type of polymers may develop dust during transporting or grinding of pellets.

Storage: Store container in a dedicate place and under dry conditions. Do not smoke. Ground equipment electrically. Open flames prohibited.

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8. Exposure controls / personal protection

Components with workplace parameters:

Component	Country	Short-term values	Long-term values
107-02-8 acrylaldehyde	OES ; Great Britain Belgium	0.70 mg/m ³ ; 0.3 ppm 0.70 mg/m ³ ; 0.3 ppm	0.23 mg/m ³ ; 0.1 ppm 0.23 mg/m ³ ; 0.1 ppm
50-00-0 formaldehyde	MEL ; Great Britain Belgium	2.5 mg/m ³ ; 2 ppm 0.38 mg/m ³ ; 0.3 ppm	2.5 mg/m ³ ; 2 ppm /
64-19-7 acetic acid	OES ; Great Britain Belgium	37 mg/m ³ ; 15 ppm 38 mg/m ³ ; 15 ppm	25 mg/m ³ ; 10 ppm 25 mg/m ³ ; 10 ppm
64-18-6 formic acid	OES ; Great Britain Belgium	/ 19 mg/m ³ ; 10 ppm	9.6 mg/m ³ ; 5 ppm 9.5 mg/m ³ ; 5 ppm

Personal protective equipment:

- Hand protection: Wear heat resistant gloves when handling molten material.
- Skin and body protection: No special skin protection requirements during normal handling and use.
- Respiratory protection: Wear appropriate respirator when ventilation is inadequate and the product is heated.
- 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.

9. Physical and chemical properties

- Form and Color: black pellets
- Odor: odorless
- Melting point/range: 135°C
- Boiling point: not applicable

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Viscosity:	not applicable
Vapor pressure:	not applicable
pH value:	not applicable
Density:	0.977
Solubility in water:	insoluble
Ignition temperature:	> 320 °C
Danger of explosion:	product is not explosive

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:	Strong oxidizing materials.
Hazardous decomposition:	No hazardous decomposition products known at room temperature.

11. Toxicological information

Sensitization:	No data available.
Inhalation:	No data available.
Skin:	No data available.
Eyes:	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.

12. Ecological information

Biodegradability:	The product is not biodegradable.
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Environmental precautions: /

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.

Container: Empty containers can be landfilled after cleaning, when in compliance with the Environmental Protection Regulation.

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. Regulatory information

Labelling according to EEC Directive

The material is not subject to classification according to the EEC lists and other sources of literature known to us. Observe the normal safety regulations when handling chemicals.

16. Other information

The contents and format of this MSDS are in accordance with EEC Regulation REACH 1907/2006 art. 31.

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.

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