SAFETY DATA SHEET
(INFORMATION FORM FOR CHEMICALS DATA)

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING.

1.1 Product identifier:
PI-ETPU 95-250 Carbon Black
(mixture, no registration)

1.2 Relevant identified uses of the substance or mixture and uses advised against
The uses of the chemical:
To make electrostatic conductive products.

1.3 Details of the supplier of the safety data sheet Manufacturer, importer, other undertaking:
Palmiga Innovation
Fläderbärvägen 4
263 71 Jonstorp
Sweden
+46 705 36 91 80
e-mail: tp@palmiga.com

1.4 Emergency telephone number:
+46 705 36 91 80 (Swedish office hours)

2. HAZARDS IDENTIFICATION.

2.1 Classification of the substance or mixture:
Not hazardous. Compliant to (EG) nr 1907/2006 (REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals)

2.2 Label elements:
N/A

2.3 Other hazards:
Compound contains carbon black which is bound in the base polymer. Carbon black is listed in the dust form as a possible carcinogen to humans - group 2B - by the International Agency for Research on Cancer (IARC). In the compound carbon black is not in the dust form but is bound in plastic.

3. COMPOSITION/INFORMATION ON INGREDIENTS.
N/A

4. FIRST AID MEASURES.

4.1 Description of first aid measures:
Wash with water. In case of skin contact with molten plastic cool rapidly with water. Do not attempt removal of plastics without medical assistance.

4.2 Most important symptoms and effects, both acute and delayed:
Burning marks in skin contact with molten plastic.

4.3 Indication of any immediate medical attention and special treatment needed.
Severe burning of skin.
5. FIREFIGHTING MEASURES.

5.1 Extinguishing media:
Water spray, foam, CO2.

5.2 Special hazards arising from the substance or mixture:
Carbon monoxide, carbon dioxide, hydrogen cyanide, nitrogen oxides, volatile organic compounds and isocyanate.

5.3 Advice for firefighters:
Wear self contained positive pressure breathing apparatus and full fire protective clothing.

6. ACCIDENTAL RELEASE MEASURES.

6.1 Personal precautions, protective equipment and emergency procedures:
No special precautions needed.

6.2 Environmental precautions:
Do not let the granules contaminate the soil.

6.3 Methods and material for containment and cleaning up:
Sweep up spill.

6.4 Reference to other sections:
N/A

7. HANDLING AND STORAGE.

7.1 Precautions for safe handling:
Follow proper standard industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities:
To be stored dry.

7.3 Specific end use(s):
None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION.

8.1 Control parameters:
National occupational exposure limit values N/A
Other limit values N/A
DNEL N/A
PNEC N/A

8.2 Exposure controls:
Respiratory protection: Provide adequate ventilation, use local exhaust ventilation or air cleaning with carbon filter.
Hand protection: Gloves where & when needed to prevent burning of skin.
Eye/face protection: Safety glasses where & when needed.
Skin protection: Normal clothing covering skin.
9. PHYSICAL AND CHEMICAL PROPERTIES.

9.1 Information on basic physical and chemical properties:

- **Appearance:** filament
- **Odour:** characteristic odour
- **Odour threshold:** N/A
- **pH:** N/A
- **Melting point/freezing point:** >120 °C
- **Initial boiling point and boiling range:** N/A
- **Flash point:** N/A
- **Evaporation rate:** N/A
- **Flammability (solid, gas):** N/A
- **Upper/lower flammability or explosive limits:** N/A
- **Vapour pressure:** N/A
- **Vapour density:** N/A
- **Relative density:** 1.3 g/cm³
- **Solubility(ies):** Soluble in organic solvents
- **Partition coefficient: n-octanol/water:** N/A
- **Auto-ignition temperature:** >340˚C
- **Decomposition temperature:** >250˚C
- **Viscosity:** N/A
- **Explosive properties:** N/A
- **Oxidising properties:** N/A

9.2 Other information:

N/A

10. STABILITY AND REACTIVITY.

10.1 Reactivity:
The product is stable under normal conditions of use and storage.

10.2 Chemical stability:
The product is stable under normal conditions of use and storage.

10.3 Possibility of hazardous reactions:

little

10.4 Conditions to avoid:
Temperature above 250˚C. Do not allow product to remain at elevated temperatures for extended period of time.

10.5 Incompatible materials:

none known

10.6 Hazardous decomposition products:
Carbon monoxide, carbon dioxide, hydrocarbons, hydrogen cyanide, nitrogen oxides, volatile organic compounds and isocyanate.
11. TOXICOLOGICAL INFORMATION.

11.1 Information on toxicological effects:

Acute toxicity:
Carbon black in powder form:
- fish: LC50(96h)>100mg/l, (Brachydaniio rerio)
- OECD203 water flea: EC50(24h)>5600 mg/l, (Daphnia magna)
- OECD202 algae: EC50 (72h)>10000 mg/l (Scenedesmus subspicatus)
- LD50 (oral, rats): > 8000 mg/kg.

Skin corrosion/irritation: none known
Serious eye damage/irritation: none known
Respiratory or skin sensitization: none known
Germ cell mutagenicity: none known
Carcinogenicity: Carbon black in powder form is listed as a possible carcinogen to humans - group 2B - by the International Agency for Research on Cancer (IARC), but is not listed as a carcinogen by U.S. National Toxicity Program (NTP) and U.S. Occupational Safety and Health Administration (OSHA).

Reproductive toxicity: none
STOT-single exposure: N/A
STOT-repeated exposure: N/A
Aspiration hazard: N/A
Other information: None

12. ECOLOGICAL INFORMATION.

12.1 Toxicity: Non toxic

12.2 Persistence and degradability: Not biodegradable

12.3 Bioaccumulative potential: Non bioaccumulate

12.4 Mobility in soil: Insoluble in water

12.5 Results of PBT and vPvB assessment: None

12.6 Other adverse effects: None

13. DISPOSAL CONSIDERATIONS.

13.1 Waste treatment methods: Reuse or recycle if possible. Dispose of at approved land-fill tips according to local regulations

14. TRANSPORT INFORMATION.

14.1 UN-number: N/A
14. TRANSPORT INFORMATION.

14.2 UN proper shipping name:
N/A

14.3 Transport hazard class(es):
N/A

14.4 Packing group:
N/A

14.5 Environmental hazards:
None

14.6 Special precautions for user:
None

14.7 in bulk according to Annex II of MARPOL73/78 and the IBC Code:
N/A

15. REGULATORY INFORMATION.

15.1 , health and environmental regulations/legislation specific for the substance or mixture:
None

15.2 Chemical safety assessment:
None

16. OTHER INFORMATION.

CARBON BLACK dust: Carbon black in dust form is listed as a possible carcinogen to humans - group 2B - by the International Agency for Research on Cancer (IARC), but is not listed as a carcinogen by U.S. National Toxicity Program (NTP) and U.S. Occupational Safety and Health Administration (OSHA). Carbon black in the dust form: Carbon black contains trace amounts of strongly adsorbed polynuclear aromatic compounds (PAH's). Some PAH's in the non-adsorbed form have been found to be carcinogenic. Epidemiology studies of U.S. and W.European carbon black workers show no significant health effects due to occupational exposure. Chronic inflammation, lung fibrosis and lung tumors have been found in rats experimentally exposed for long periods of time to excessive concentrations of carbon black and other insoluble dust particles which overwhelm the lung clearance mechanisms. The researchers who conducted these tests believe that these diseases most likely result from the massive accumulation of small dust particles in the lung, the "lung overload phenomenon," rather than from specific chemical effect of carbon black. Such effects occur only when the lungs are overloaded with an excess of small particles. Human studies have not found that workplace exposure to carbon black at or below the TLV causes these effects.