

## Safety Data Sheet

according to EU Directive 1907/2006

**Product name:** Terralene® HD 3505  
**Date of issue :** November 22<sup>nd</sup> 2012 **Version:** 1.0

### 1. Identification of the substance/preparation and of the company

1.1 Product: High Density Polyethylene blend for injection moulding  
1.2 Product name: **Terralene® HD 3505**  
1.3 Supplier: FKUR Kunststoff GmbH  
Siemensring 79  
D - 47 877 Willich  
Phone: +49(0) 2154-9251-0 Fax + 49(0) 2154-925151  
Emergency phone number: +49 2154-9251-0

### 2. Hazards identification

2.1 Classification: Not classified as hazardous according to directive 67/548/EEC.  
2.2 Special advice on hazards: Danger of burns in contact with hot polymer.  
Hazardous vapours in case of burning.  
Dust may cause respiratory irritation if inhaled.  
2.3 Environmental effects: No environmental hazard. May cause long-term effects on aquatic environment.

### 3. Composition / information on ingredients

3.1 Chemical characteristics: Copolymerized ethylene with 1-butene  
3.2 Synonyms: High Density Polyethylene (HDPE)  
3.3 CAS No: 25087-34-7  
3.4 Additional information: no harmful ingredients

### 4. First-aid measures

4.1 On skin contact: In case of contact with molten polymer immediately cool the skin with cold water. Medical aid may be required to remove adhering material and for treatment of burns.  
4.2 After inhalation: After inhalation of decomposition gases or dust remove patient to fresh air. Contact a doctor in case of discomfort.  
4.3 On ingestion: No effects known. Rinse mouth with water and drink more water. Contact a doctor in case of discomfort.  
4.4 On eye contact: Rinse open eyes thoroughly with water

### 5. Fire-fighting measures

5.1 Suitable fire extinguishing media: Carbon dioxide, dry chemical, foam or water fog. Avoid using water with full jet and throwing water directly on flames.  
5.2 Special exposure hazards: During incomplete combustion release of carbon monoxide and dioxide.

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### 5. Fire-fighting measures

- 5.3 Special protective equipment: Self-contained breathing apparatus operated in positive pressure mode and complete protective clothing.
- 5.4 Remark: Accumulations of dust can be flammable.

### 6. Accidental release measures

- 6.1 Personal precautions: Use suitable protective clothing. Avoid eye contact and inhalation of dust.
- 6.2 Control of dust: Apply ventilation or exhaust system to eliminate mist and vapour.
- 6.3 Removal of ignition sources: Product isn't flammable. Eliminate all potential ignitable sources around the area. Do not smoke in the area.
- 6.4 Environmental precautions: Avoid ingress of material into environment (soil, waterways and groundwater)
- 6.5 Methods for cleaning up: Risk of slipping. Sweep up material and place in a container. Dispose according to local regulation about residues.

### 7. Handling and storage

- 7.1 Handling: Avoid contact with molten polymer. Avoid generation of dust and electrostatic charge. Use proper personal protective equipment.
- 7.3 Conditions for safe storage: Storage should be in a cool and dry area away from heat and ignition. Avoid stacking.
- 7.4 Packaging materials: The polyethylene resin, being an inert material, can be packed in polyethylene bags.

### 8. Exposure controls/ personal protection

- 8.1 Technical safety measures: With suitable ventilation the threshold limits assumably will not be reached. Avoid electrostatic charge by use of grounding cables.
- 8.2 Personal safety equipment: Use adequate safety equipment, e.g. protective clothing, eye protection glasses, heat protection gloves. In case of dust formation wear mask with particle filter.
- 8.3 Work hygiene: No eating or drinking during working. Avoid contact of hot material with the skin. Avoid breathing dust and vapours.
- 8.4 Environmental exposure controls: Do not discharge directly into the environment or into the sewer system. The dilution water from fire fighting can cause pollution.

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### 9. Physical and chemical properties

9.1 Form:	Granules
9.2 Colour:	Translucent / white solid
9.3 Odour:	Not available
9.4 Melting range:	Not available
9.5 Flammability:	Non flammable
9.6 Explosions limits:	Not applicable
9.7 Auto-ignition temperature:	350 °C
9.8 Density:	0.959 g/cm <sup>3</sup>
9.9 Solubility:	Insoluble in water. Soluble in xylene.
9.10 Other information:	Polyethylene's maximum time of storage is 15 months after production.

### 10. Stability and reactivity

10.1 Chemical stability:	Stable under normal conditions of handling and storage.
10.2 Possibility of hazardous reactions:	No hazardous reactions with this product known.
10.3 Substances to be avoided:	Strong acids, strong oxidizers, chlorated solvents and aromatic compounds.
10.4 Hazardous decomposition products:	Monoxide and carbon dioxide and other irritant chemical substances.
10.5 Conditions to avoid:	Sources of heat or ignition (direct sunlight, sparks, open flames, static loads).

### 11. Toxicological information

11.1 Acute toxicity:	LD <sub>50</sub> (oral, rats) = 4000 mg/kg
11.2 Skin corrosion/irritation:	Not irritating.
11.3 Serious eye damage/irritation:	Not irritating.
11.4 Respiratory or skin sensitization:	No sensitization effects known.
11.5 Germ cell mutagenicity:	No germ cell mutagenicity effects known.
11.6 Carcinogenicity:	No carcinogenicity effects known.
11.7 Reproductive toxicity:	No reproductive toxicity effects known.
11.8 STOT - single exposure:	At powder or dust form, may cause respiratory irritation with cough and sneezing.
11.9 STOT - repeated exposure:	No repeated exposure effects known.
11.10 Aspiration hazard:	No aspiration effects known.

### 12. Ecological information

12.1 Ecotoxicological effects:	No negative ecological effects known at the present state of knowledge.
12.2 Persistence and degradability:	High persistence and slow degradability expected.
12.3 Bioaccumulation:	Bioaccumulative potential not known.

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### 13. Disposal considerations

- 13.1 Product : Treatment and disposal should be evaluated specifically for each product. Can be deposited in landfills, sent to an appropriate incineration or other means of disposal as long as they meet the requirements of local law.
- 13.2 Product waste: Keep product remains in their original containers and properly sealed. Disposal should be performed as established for the product.
- 13.3 Contaminated packaging: Polyethylene package must be submitted to re-utilization in the working environment. Package may be reused or recycled by specialized companies.

### 14. Transport information

- 14.1 Transport regulations: Not classified as hazardous under transport regulations ADR, ADNR, RID, ICAO/IATA, IMDG/GGVSee, ICAO/IATA

### 15. Regulatory information

- 15.1 EU regulations: This product does not require a hazard warning label in accordance with EC Directives.
- 15.2 Water exposure class: 'nwg' , no risk of water pollution (classification acc. Att. 1 of VwVwS)

### 16. Other information

This data is based on the current state of our information and experience. This safety data sheet describes our product in terms of safety requirements. Preceding data is not applicable as a warranty of product properties. It is the responsibility of the recipient to observe the existing legal regulations for the use of this product.

The brand „FKuR – Plastics made by nature“ is a registered trademark of FKUR Kunststoff GmbH, according to the international 'Nice-Classifications' (NCL9), no. 01, 02 and 17.  
The brand „TERRALENE“ is a registered trademark of FKUR Kunststoff GmbH, according to the international 'Nice-Classifications' (NCL9), no. 01 and 02.