



Material Safety Data Sheet

1. Basic Information

Product Name	Perlhumus
Manufacturer	Humintech GmbH
Address	Heerdter Landstrasse 189
Country	Germany
Phone	+49 (211) 50 66 57 - 0
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Emergency Phone	+49 (211) 50 66 57 - 21
Webpage	www.humintech.com
Last Update	05/29/2003
Chemical State	<input type="checkbox"/> Liquid <input type="checkbox"/> Gas <input type="checkbox"/> Solid
Chemical Type	<input type="checkbox"/> Pure <input type="checkbox"/> Mixture
Hazard Rating	<input type="checkbox"/> Health <input type="checkbox"/> Reactivity <input type="checkbox"/> Flammability

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

2. Ingredients

Chemical Name	Naturally occuring Leonardite
Humic Acids	60-75%
Nitrogen (N)	1% (N org.)
Potassium (K ₂ O)	0.3%
Phosphorus (P ₂ O ₅)	0.2%
Iron (Fe)	1%

3. Hazards Identification

None known to be hazardous to man or environment.

4. First Aid Measures

Threshold limit value:	N/A
Effects of overexposure:	A single exposure will not result in serious adverse effects. Avoid uncontrolled inhalation of dust.
Emergency:	Flush eyes immediately with water. Remove to fresh air if inhaled.
First aid procedures:	No first aid required for skin contact.
Other health warnings:	none



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5. Fire Fighting Measures

Flash Point:	>204°C (>400°F) Cleveland cup method
Explosive limits:	Not determined
Suitable extinguishing media:	Water, fog, foam, rock dust
Special fire fighting procedures:	Do not stir up dust with hose stream. Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Unusual fire explosion hazards:	May explode if dust is suspended in air and ignition source is present. Granules burn similar to coal or wood.
Further information:	Fire fighting is the same as lignite.

6. Accidental Release Measures

Steps to be Taken in Case Material is Released or Spilled:

Vacuum if possible to avoid generating airborne dust. Avoid breathing dust. Wear an approved respirator. Avoid adding water as the product will become slippery when wet.

Waste disposal:

Follow federal, state and local regulations for solid waste.

7. Handling and Storage

Precautions to be Taken:

Store in original container in a dry place. Keep from heating or freezing. Keep out of reach of children.
Other precautions: Use adequate ventilation and dust collection.

8. Exposure Controls/Personal Protection

Ventilation:

Local exhaust:	Required.
Special:	Not normally required.
Mechanical (general):	Use if ventilation is not adequate.
Other:	Work in ventilated area.

Personal Protective Equipment:

Respiratory Protection:	Use appropriate respiratory protection for respirable particulate based on consideration of airborne workplace concentration and duration of exposure.
Protective gloves:	Recommended.
Eye protection:	Safety goggles or glasses.
Other Protective Equipment	Wear clothing consistent for handling and applying fertilizer.



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9. Physical and Chemical Properties

Boiling point	N/A
Vapor pressure (mm Hg.)	N/A
Vapor density (air=1)	N/A
Specific gravity (H2O=1)	1.5
Percent volatile	N/A
Evaporation rate	N/A
Solubility in water	negligible
pH-value	5.5 - 6.7
CEC	400-600meq/100g
Conductivity in % KCl	0.41%
Color and odor	black, almost odorless
Product type	granules

10. Stability and Reactivity

Stability:	Stable
Incompatibility (materials to avoid):	None known
Hazardous decomposition products:	When burned, CO, CO ₂ , SO ₂ , hydrocarbons (incl. coal tar pitch and unknowns) may be detected.
Hazardous polymerization:	Will not occur.

11. Toxicological Information

May be harmful by inhalation, ingestion or skin absorption. May cause eye and skin irritation. No toxicological data available to the best of our knowledge.

12. Other Information

The above information is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. Humintech GmbH shall not be held liable for any damage resulting from handling or from contact with the above product.