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MATERIAL SAFETY DATA SHEET

This Material Safety Data Sheet was created in accordance with the criteria specified by Australia's National Occupational Health and Safety Commission's National Code of Practice for the Preparation of Material Safety Data Sheets [NOHSC: 2011 (1994)].

Date of Issue: Issue #6, revised January 2002

Statement of Hazardous Nature: *Not classified as hazardous according to criteria of NOHSC Australia.*

1. IDENTIFICATION

Product Name:	Enretech-1	UN Number:	None Allocated
Other Names:	None	Hazchem Code:	None Allocated
Product Code:	010-012	Poisons Schedule #:	None Allocated
Dangerous Goods Class:	None Allocated	NATO Stock #:	4235-01-440-7189

Use: A natural agricultural cotton cellulose product for the absorption, and encapsulation of petroleum hydrocarbon liquid spills on hard surfaces or in soils. As the product contains naturally occurring bacteria and fungi, it will also bioremediate the absorbed hydrocarbon, given the appropriate conditions. Contains no pesticide residues.

Physical Description/Properties:

Appearance: brown, fibrous, odourless powder	Solubility in Water (g/L): Insoluble
Boiling Point at 760 mm Hg (°C): Not Relevant	Flash Point (°C): Not Relevant
Melting Point at 760 mm Hg (°C): Not Available	Bulk Density (H ₂ O=1): 0.367 g/mL
Vapour Pressure @ 25 °C (mm Hg): Not Relevant	Auto-ignition Temperature: >260 °C
LEL (%): 50,000 mg/m ³ in air	UEL (%): Not Available

Other Properties:

Corrosiveness: No Hazard	Particle Size (µm): Not Available
Oxidising Properties: No Hazard	Settling Rate in Air (minutes): Not Available
Reactivity: No Hazard under normal use	Percent Volatiles (%): 0
Odour Threshold: Not Available	pH: ~6 in water

Ingredients: The ingredients listed are NOT considered hazardous in the quantities present and are considered proprietary information.

<u>Chemical Entity</u>	<u>CAS No.</u>	<u>Proportion (%)</u>
Cellulosic waste material derived from cotton	9004-34-6	94-96
Proprietary Ingredients		4-6

Microbial Identification Quantity (CFU/g)

The bacteria in this product are considered indigenous to any agriculturally produced material. None of the bacteria are considered harmful to humans, flora or fauna. Bacterial identification and viable counts are considered proprietary information.

2. HEALTH HAZARD INFORMATION

Health Effects:**Acute:**

Swallowed: Unlikely as an exposure route. As the product is mostly natural cellulose, it is physiologically inert, and non-harmful if swallowed. Bacteria typically found on agricultural products may be present, and are not considered harmful.

Eye: Dust particles may cause mechanical irritation, resulting in redness.

Skin: Absorption through skin not an exposure route. Unlikely to be a skin irritant. Repeated skin contact may cause redness. In some individuals, overexposure may aggravate an existing medical condition, or skin sensitivity.

Inhaled: Inhalation of high dust levels may cause irritation to the mucous membranes of the nose, throat and respiratory tract. Persons with a history of respiratory illness should not be exposed to conditions where exposure to significant levels of dust is likely.

Chronic: No data available.

First Aid:

Swallowed: Thoroughly rinse mouth with water. Drink a glass of water. Do not induce vomiting. If discomfort arises, seek medical attention.

Eye: Hold eyes open, flooding with water for at least 15 minutes. Seek medical attention if irritation persists.

Skin: If irritation or redness results from prolonged skin contact, seek medical attention.

Inhaled: If encountering respiratory difficulties, remove from dusty area and into fresh air, if possible. Seek medical attention if effects persist.

First Aid Facilities: Sterile eyewash solution for treatment of nuisance dusts.

Advice to Doctor: Treat symptomatically.

3. PRECAUTIONS FOR USE

Exposure Standards:

Australia NOHSC: 1003(1995): 10 mg/m³ (cellulose – inspirable dust)

OSHA-PEL: 15 mg/m³ (cellulose – total dust), 5 mg/m³ (cellulose – respirable dust)

ACGIH-TLV: 10 mg/m³ (cellulose – total dust)

Engineering Controls:

No special ventilation is required under normal use. If handling large amounts of material in an enclosed area, the use of exhaust ventilation may be necessary to keep ambient dust levels as low as possible.

Personal Protective Equipment:

Eye: Eye protection not needed under normal conditions. Goggles are recommended only if significant dust levels in air.

Skin: Gloves not needed under normal conditions. Cloth gloves are recommended only if handling large quantities of powder.

Respiratory: Dust mask not necessary under normal conditions. Disposable 2-strap half-face dust mask recommended if exposure to high concentrations of dust is likely. Respirators and their use should comply with Australian Standards AS 1716 and AS 1715.

Other: Other protective clothing not required under normal conditions. Coveralls are recommended only if handling large quantities of powder.

Flammability: Not flammable under conditions of normal use. Explosion is possible only if ambient concentration exceeds 50 kg/m³.

Reactivity: Not reactive under conditions of normal use. As the sorbent is a combustible organic material, it is incompatible with oxidisers. Contact with strong oxidisers could result in ignition of sorbent. Will not polymerise. May evolve significant levels of ammonia gas if in contact with strong alkali. Use Enretech Alkasorb for caustic alkali spills.

4. SAFE HANDLING INFORMATION

- Storage:** Observe storage instructions on container. Keep container in a dry, cool, ventilated area. Avoid dispersal of dust. Will not spontaneously combust, even when stored in large quantities.
- Transport:** Not classified as a Dangerous Good. No special transport requirements necessary. If decanting material, ensure containers are adequately labelled.
- Spills:**
- General: Wear appropriate protective equipment (See "Precaution for Use" section) to prevent exposure. Materials can be safely flushed to sewer.
- Small Spills: Sweep up but avoid generating ambient dust.
- Large Spills: Collect and place in clean, labelled containers for disposal.
- Disposal:** This product is a natural cellulose material and can either be discarded into regular garbage, or incinerated by approved agents. Under normal circumstances, if the product has been used to absorb light to medium weight petroleum hydrocarbons, the mixture can be discarded into solid waste landfill. However, always consult your applicable State Waste Management authority to ensure proper disposal practices.

Fire/Explosion Hazard:

Combustible solid but difficult to light as the product contains a known fire suppressant. If burning, fire-fighters to treat as a wood fire. Combustion by-products include carbon monoxide, carbon dioxide and acrid smoke. No hazardous decomposition products are known. Extinguishing media include: water spray, carbon dioxide or dry chemical powder.

5. OTHER INFORMATION

This product is manufactured from a waste by-product of the cotton industry. The powder contains naturally occurring bacteria and fungi indigenous to agricultural environments and are not genetically modified or cultured in any way. None of the bacteria in the product are considered harmful to humans, flora or fauna. The product is 100% fully biodegradable.

6. CONTACT POINT

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ADVICE NOTE:

This Material Safety Data Sheet (MSDS) summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user must review this MSDS and consider the information in the context of how the product will be handled and used in the workplace. When used for liquid spill clean-up, sorbents tend to take on the characteristics of the liquid they have absorbed. Thus, always consult the MSDS of the spilled liquid prior to absorption with Enretech-1.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company. Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.