

# ENVIROMENTALLY FRIENDLY ABSORBENT GRANULES

# NATURES SPONGE

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#### USES

Spongolite is used as an absorbent for all fluid spills, including chemicals, acids and oils and acts quickly and effectively on this task. The mineral is heat resistant and can be used as a safety and fire prevention toll at a variety of relevant sites such as refineries, race tracks, machinery and farm workshops, kitchens, processing plants and fluid storage facilities. It is non-flammable

#### **INTRODUCTION**

Spongolite is truly "Natures Sponge" because it is formed from natural sponges that were present on the seabed hundreds of millions of years ago. What was once the seabed millions of years ago is now pleasant pastoral country 60km inland from the south coast of Western Australia. In that ancient seabed, the remains of millions of tonnes of marine sponges collected in a depression in the seabed as they moved with the ocean currents. That is the basis of the formation of Spongolite which we now mine.

The deposits are very pure and uniform and stretch over a significant area ensuring a continuing supply of consistent quality product comes from our operations.

# WHY DOES SPONGOLITE WORK SO WELL?

Spongolite is a superior absorbent granule product because it is very highly porous – retaining the original structure of marine sponges. Not only does it absorb liquids better, but it retains them much letter due to the liquid being "locked away" inside the sponge structure, giving negligible release (leaching) back to the environment when the Spongolite is disposed of. Because the sponge structure is silica based, it is also very strong. This means that Spongolite does not break down and become wet and messy and slippery when it absorbs liquids, giving a safer and cleaner clean-up. Most clay based absorbents become wet and slippery when they absorb liquids.

The Spongolite consists predominantly of the dismembered skeletons of sponges which are composed of form of hydrated silica variously described as opal, amorphous silica, opal-cristobalite or alpha-cristobalite. The most accurate description is disordered alpha-cristobalite.

#### **PRODUCT INFORMATION**

Spongolite is a mineral based absorbent formed from natural sponges that were deposited on the seabed hundreds of missions of years ago. Our operations are based in the South West of Western Australia where we mine and package Spongolite for commercial use from our large high quality deposit.

#### PHYSICAL AND CHEMICAL PROPERTIES

It is packaged as a cream coloured granule extracted from the original rock source and has undergone no tertiary processing. It is highly inert and exhibits a high degree of micro-porosity. A typical chemical analysis would show as follows:

SiO2	82.5%
A12O3	2.6%
Fe2O2	2.3%
MgO	0.4%
H2O-	3.5%
H2O+	2.8%
Alkalis	2.4%

Spongolite can be produced in a variety of size fractions from fine powder to coarse (20mm) granules. Spongolite -8.0mm + 2.0mm Spongolite has a bulk density of around 650 - 700 grams per litresafe to use around machinery. The company is continuing to research and develop new uses for this versatile product.

#### DISPOSAL

Used Spongolite, containing no free liquid, that has absorbed total petroleum hydrocarbons C10 - C36 (kerosene, diesel, lubricating oils) can be classified in N.S.W. as immobilised solid waste suitable for Solid Waste Landfills Class 2. These landfills are essentially the Local Tip. They differ from Class 1 Landfills through the exclusion of putrescible (organic) waste (generates a more aggressive leachate).

- Floor scrubbing: After machine cleaning, cover the surround floor with a light carpet of Spongolite to remove excess moisture, oil and dangerous caustic and detergent residue.
- Tank Cleaning: Cover the bottom of a tank with Spongolite to soak up difficult to move residues.
- Absorbing workshop liquid spillages: Sprinkle onto spills for rapid absorption to combat dangerous slippery floors.
- Petrol Absorbent: Will safely absorb and contain petrol and oil spillages for easy disposal with dry waste.
- Absorbing Industrial Oils: Dense industrial oils can be drown down with a non-toxic degreaser and then easily absorbed and contained with Spongolite.

# **CURRENT DOMESTIC USES**

- Pet Litter Trays: Layer in pet tray will absorb pet litter and reduce odour.
- Car Drip Trays: Catch the little spills before damage to flooring occurs.
- Odour Absorption: Place a small amount in open container in refrigerator, ashtray, garbage bin, garbage room, etc. to absorb unwanted odours.

#### CURRENT HORTICULTURAL USES

- Orchid Mix: Specialised mix of natural ingredients.
- Hydroponics: Used to retain moisture and nutrients.
- Potting Mix Additive: Add to potting mix to increase aeration and reduce watering.
- Decorative Gravel: Used as a decorative and moisture retentive coverage.

#### HIGH TEMPERATURE APPLICATIONS

- Excellent thermal insulator.
- No cracking or spalling in high temperature applications.
- Very high melting point (silica based).

#### STORAGE AND HANDLING

Spongolite is packaged in plastic bags on pallets of 1 tonne quantity. Current bag size is 15kg and it is also available in bulk if required -1 tonne bulker bags or by the truckload.

No specific storage requirements are needed, however we recommend that undercover, dry storage be used.

# SAFETY

Spongolite is safe to store and use – consisting essentially of inert natural mineral. Please see the Material Safety Data Sheet for full details.

# CURRENT INDUSTRIAL AND SAFETY USES

- Major industrial and commercial liquid spillages: Use Spongolite to rapidly absorb and contain liquid spillages.
- Safer Traffic Areas: Spongolite used on ramps and floors helps prevent wheel slip in forklifts and other vehicles, particularly where oil spills have occurred.
- Dust Control: Wet Spongolite makes an excellent sweeping compound for dusty areas.
- Packaging: Spongolite is an ideal cushion or shock absorbent for the prevention of breakages, particularly for the transport of flammable or corrosive liquids. However, should breakage occur, the contents are readily absorbed, thereby greatly reducing the risk of fire or burns.

#### CURRENT INDUSTRIAL AND SAFETY USES

- Metal Working: oil film on machinery parts can be readily removed by tumbling in Spongolite
- Chemically inert resists chemical attack and oxidation at high temperatures
- Can be cut into fire bricks
- Granules can be used as thermal insulation packing
- Potential to be developed as a castable refractory.

# GENERAL

As a natural mineral product, Spongolite has a very broad use due to its fast absorbency rate and compatibility with fluid product.

As a safety aid, Spongolite is extremely effective as it can be applied quickly, is easily transported, is fire resistant and will minimise fluid spills spreading to other areas.

ENVIRO MOP ENVIROMENTALLY ABSORBENT GRANULES ARE AVAILABLE IN THE FOLLOWING SIZES.

6mm product in 15 litre bags.

2-6mm product in 1 ton bulker bags.

2mm product in 1 ton bulker bags.

1mm powder product in 1 ton bulker bags.

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