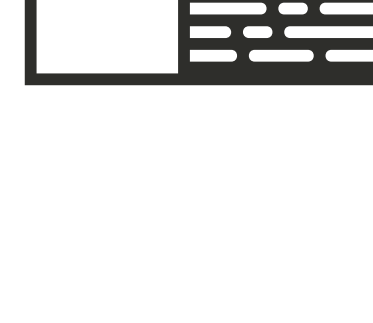


TOOLBOX TALKS



BENTONITE

WHAT?

Bentonite is a type of clay that swells and gels when dispersed in water when it then has thixotropic properties. That is it acts like a liquid when agitated or stirred and like a solid when left at rest.

As "mud" it is used as a lubricant when drilling or pipe pushing and as "slurry" it is used to fill and support the sides of excavations during the construction of diaphragm walls, cut-off walls, or piles.

Bentonite is delivered to site as a powder or as granules before being mixed with water. The mud or slurry is pumped to point of use, recovered during excavation or when displaced by concrete, pumped to treatment tanks to remove contamination and then reused in the work.

The use of bentonite can lead to spillage around operational areas and around mixing, pumping and storage equipment.



WHY?

AVOID ENVIRONMENTAL HARM:

Liquid bentonite is highly polluting and if it enters watercourses or drains can give rise to damage to plants and animals in watercourses.

AVOID PROSECUTION:

If not correctly managed, bentonite in powder form can become airborne causing dust nuisance to local residents leading to legal action by the Local Authority. Pollution of watercourses by bentonite may lead to prosecution by the Environment Agency or Scottish Environmental Protection Agency.

COST:

The cost of clean up and legal proceedings far exceeds the cost of putting proper control measures in place. Waste bentonite is very expensive to dispose of!

DO

GENERAL



Keep dry powder or granule containers closed so that bentonite cannot become airborne or be damaged by rain or moisture.

USE



Ensure that bentonite does not spill onto the ground.



Ensure that if spillages do occur they are promptly cleared up.



Protect watercourses and drains from any spillage of liquid bentonite.



Report immediately to your manager any incidents where bentonite is seen entering a watercourse or a drain, or is becoming airborne.

DISPOSAL



Ask your manager what to do with waste bentonite.

DON'T



DON'T leave containers or bags containing bentonite open to the air.



DON'T ignore spillages on the ground.

USE



DON'T intentionally allow liquid or powdered bentonite to spill onto the ground.

DISPOSAL



DON'T pour bentonite into watercourses or drains.



DON'T give bentonite away to third parties without checking with your manager.

TOOLBOX TALKS



FOR MORE INFORMATION OR IF YOU HAVE ANY CONCERNS CONTACT **YOUR SHEQ DEPARTMENT**