Established 1906

WT Knowles & Sons Limited

Material and Safety Data Sheet (MSDS)

for

Clay Products

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Scope

The information in this data sheet applies to all clay products manufactured by or distributed by W T Knowles & Sons Limited (Knowles). These products are broadly categorised as chimney pots and flue components and general drainage products, broadly comprising clay chimney pots, clay pipes, clay drainage fittings and clay gardenware.

Composition

The fired clay products are produced from a blend of naturally occurring clays, fired to a range of vitrification temperatures. The clay will contain a significant proportion of silica with various minerals, residual metallic oxides and some silicates.

Handling, Storage and Transport

Knowles' products are packaged according to the product type and the pack weight will vary for each product type. Equipment used for the lifting of packs must be adequate for the weight involved.

The clay products may be packed on disposable wooden pallets using metal strapping bands or plastic shrink wrapping.

Packs should always be placed on firm level ground and ideally should not be stacked but if the product type and shape allows stacking, it should be no more than three high at any time provided the pack is flat topped and symmetrical. Packs of mixed goods should not be stacked. If packs show evidence of leaning, they should be re-positioned at ground level. Only trained, competent forklift or mechanical offload operatives should carry out this type of activity.

All personnel must stand well clear of packs when they are being lifted or moved.

Packs of clay products must never be lifted by the strapping when handling.

Handling forks should be approximately 90mm wide and 1100mm long and should be engaged through the pallet voids.

If the pack has been opened and the straps removed, the products must be secured to prevent movement during any subsequent lifting. Clay pipes are a typical example where such movement may occur.

The following precautions should be taken:-

- Avoid abnormal shocks to the packs by dropping or rubbing.
- Avoid sliding one pack along the top face of another.
- The use of safety hats and boots is recommended in work areas.
- Straps should be cut by a suitable metal strap cutter(snips) and not burst by the application of levered force. When cutting straps, the operative should stand to the side of the strap being cut and not in line with that strap because highly tensioned straps can spring away from the package when tension is released.

Manual Handling

Frequent handling of individual fired clay products may cause abrasion to the skin on fingers and hands. If broken, clay products can have very sharp edges. The wearing of protective gloves is recommended.

Some clay products are small and easily handled and present a low risk of a manual handling injury, whereas others may be significantly large and non-symmetrical in shape and therefore handling requires careful consideration and planning. Mechanical lifting arrangements may be required especially when installing the product at its point of use.

Manual Handling Continued

Handling of individual components should be strictly regulated to avoid excessive stress and strain due to heavy loads and poor posture particularly where handling involves bending and twisting.

Components heavier than 20kg should be handled by two people or by a suitable mechanical device.

Operators should wear suitable gloves. Certain components have a complex shape therefore it is essential to ensure a firm grip is achieved which can be maintained for the duration of the movement.

The immediate area where components are being moved should be clear of obstacles and tripping hazards to avoid slips, trips and falls. Extra care should be taken on uneven and slippery ground.

Hazardous Materials

Fired clay is an odourless, inert material for all practical purposes which presents no risk to health or safety through handling or use subject to good site practices being followed. Some products may contain pigments and stabilising or conditioning chemicals. These will not be extracted from the products under normal conditions of use.

Cutting with Power Tools

Substantial amounts of dust can be produced during cutting (including drilling) with power tools. Depending on the environment and the equipment used it is possible that some respirable silica may be generated.

Under current COSHH regulations, the maximum allowable Work Exposure Limit (WEL) for respirable silica is currently 0.1mg/m3. Levels of individual exposure during cutting can be checked by detailed personal monitoring.

Where possible, the dry cutting of clay products and the creation of airborne dust should be avoided. Wet cutting reduces the amount of dust generated and is the preferred method.

Persons carrying out a dry cutting operation must wear suitable respiratory protection and a respirator or disposable mask complying with BS EN 149 is recommended. Appropriate respiratory protection is also recommended to be used by those working near to a cutting operation.

The work area would be preferably outdoors. Indoor work areas should be well ventilated and be serviced by dust extraction equipment.

During cutting, the wearing of appropriate work overalls, safety shoes and safety glasses with side shields is recommended. Ear protection may be required due to noise over 85dbA. Consult with the cutting equipment manufacturer to establish the dbA rating for the equipment being used.

Noise monitoring of the work area is advisable if prolonged periods of exposure are likely.

During a cutting operation, the clay product must be firmly held by a mechanical clamp or device to prevent movement.

Disposal

Damaged or waste clay products are totally inert and present no health hazard. They may be placed in a designated waste disposal skip for removal to an approved tip or recycling facility as normal builders waste. No ecological concerns have been identified or are anticipated.

Dust and particles should be dampened and then swept up and bagged and disposed of as described above.

Redundant metal straps should be gathered and placed in a designated metal waste disposal skip for removal to an approved tip or recycling facility.

Wooden pallets may be returned to the factory for re-use.

The burning of redundant packing material is not normally permitted on sites.

Fire

Fired clay products do not present a fire or explosion hazard. They are non-combustible and will not give off any toxic fumes if subjected to the heat of a fire. Packaging materials may be combustible and a fire extinguisher suitable for such materials should be used when required.

First Aid

Cuts: Cuts and abrasions should be washed with clean water and soap and treated with a normal first aid dressing method.

Eyes: If dust enters the eye, wash with clean water and seek medical advice if the problem persists.

Skin: Normal first aid if skin becomes broken. If the skin becomes irritated, wash with soap and water and apply a suitable skin cream.

Ingestion: Non-toxic. Drink plenty of clean water. No lasting effect anticipated.

Inhalation: Move into fresh air. Seek medical advice if severe or persistent irritation occurs.

Other Advice

It is the customer's responsibility to obtain technical data on all the materials to be used with the Knowles clay products.

No liability can be accepted in respect of other materials used in conjunction with Knowles products.

Copies of this leaflet can be supplied on request and is available on the WT Knowles & Sons Limited websites www.wtknowles.co.uk and www.knowlesdrainage.co.uk.

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The information in this document is believed to be accurate at the time of issue.