



HAZARD ALERT : PLASTER OF PARIS

PLASTER OF PARIS USE IN SCHOOLS

BACKGROUND:

Plaster of Paris is a type of plaster which can be used in art, architecture, fireproofing, and medical applications. When people think of “plaster,” they are often thinking specifically of Plaster of Paris, and associated products such as ModRoc. Plaster of Paris is made by heating gypsum, a process which involves exposing the gypsum to very high temperatures to create calcium sulfate and then grinding it into a fine white powder. When water is added to the powder it quickly rehydrates and the slurry can be molded in a variety of ways. As it sets, a firm matrix is created, which has a smooth solid shape. One advantage to plaster of Paris is that there is very little volume loss and therefore casts made with this plaster are true to the size of the mold.

Hazards:

Plaster of Paris is classified as a hazardous substance. It is generally regarded as a safe material for routine use but is not considered dangerous if worked with responsibly. **However, due to recent injuries involving the use of Plaster of Paris in schools, its use is no longer allowed for use in Pembina Trails Schools.**

Prior to starting work think about what you want to use the plaster for; how you are going to use it; what you can substitute with.



When mixed with water, this material hardens and then slowly becomes hot and temperatures as high as 60 degrees centigrade can be reached. Skin damage (severe burns) can occur at much lower temperatures, perhaps as low as 45 degrees centigrade, if contact is prolonged.

Making a cast enclosing any part of the body using this material is potentially very dangerous, particularly if the thickness of the cast exceeds a few millimeters. Once mixed, the plaster will set rapidly into a solid rigid mass. Anything that is embedded in the plaster may therefore quickly become trapped and exposed to an extreme temperature. Under no circumstances should objects such as a hand or body parts be placed into the setting plaster. **Failure to follow this guidance can cause severe burns that may require surgical removal of affected tissue or amputation of digits or a limb.**

REMEMBER: never attempt to cast a limb or any body part in a container of wet Plaster of Paris. Do not use plaster of paris bandages to cast a limb, face or any other body part. Only nursing staff and doctors are trained to do this safely and properly.

Warnings for students and users of Plaster of Paris :

The use of Plaster of Paris in Pembina Trails School Division is no longer allowed due to the serious injuries that may result from its use.

Do all teachers need to be familiar with what a Material Safety Data Sheet is (MSDS)?

Yes!

These pictures show how a simple classroom art project in a middle years classroom involving Plaster of Paris, went terribly wrong (in two separate incidents) because the teacher did not have an MSDS sheet and did not know the hazards associated with the product.

