



**Potential Hazard**  
Fine particles  
Skin irritation



**Workspace**  
Keep your area  
well ventilated



**Protective Equipment**  
Gloves, mask, eye protection  
(when processing pigment  
in powder form)



**Disposal**  
Do not dispose  
residu in the clean  
water system

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## tools



muller and  
glass palette



mortar  
and pestle



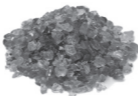
paint knife



pipet

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## binder material options



gum arabic  
gum tragacanth  
nikawa / 膠  
(japanese animal  
glue solutions)

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## additional material



raw honey/  
glycerin



clove oil  
(additive/  
preservative)

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# How to make gum arabic solution?

## **1. Grind**

Gum arabic comes in hard, brittle lumps when purchased from an art store. Using a pestle and mortar, grind a small amount into a powder.

## **2. Dissolve**

In three parts boiling water, dissolve one part gum arabic powder. Pour slowly and constantly stir for 10-15 minutes.

## **3. Sieve the Solution**

Pour the dissolved mixture through a muslin cloth. This serves as a fine sieve, removing any bits of bark and other impurities that may have been present in the solid gum arabic.

## **4. Add Honey/ Glycerin**

Adding honey or glycerin to the paint at this stage will make it more fluid and easy to work with later on. Honey attracts more water. The pan will take a long time to get wet and release any colour onto the brush without the honey. You can always experiment with the ratios, but four parts solution to one part honey is a good starting point. If you plan to store it for an extended period of time, you can add one drop of clove as a preservative.

## How to mix in pigments?

1. Put some amount of dry fine ground pigment, few drops of gum arabic solution and some waters. Gently fold the pigment into the binder with the palette knife, mixing as much as possible before adding more binder. Ground the pigment/binder mixture in a circular motion with a glass muller or mortar and pestle. If the paint is too stiff to mull smoothly at this point, add more binding mixture.
2. Mix until all of the pigment was incorporated and the mixture had a yoghurt-like consistency.
3. The amount of binder required depends on the pigment used, as some pigments require more water or binder solution than others.

## How long to mull the pigment?

Milling process in making paint depends on the pigment. Some pigments, such as natural earth pigments, have larger pigment particles and require more time to mull finely than others. There are a couple of things to look out for, when testing handmade watercolours.

If the dried paint is dusty and smudges when you run your finger over it, this indicates that there isn't enough binder in it, and it requires a little more binding mixture and mulling.

If the paint is very shiny or cracks when you bend the paper, the mixture contains too much gum Arabic and more pigment should be added.

Typically, the pigment mulling process takes 15 to 30 minutes to get a homogeneous mixture

## How to make watercolour using RekaLagam finely ground mineral pigment?

Watercolors are made by mixing finely ground RekaLagam pigments with a binder, distilled water (recommended), and other additives to preserve and stabilise the paint. Unlike ready-made industrial watercolours, each artisan can personalise the formulation of the watercolour mixture to the needs of the desired end result.

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