

First-Aid for Water-Damaged 8mm Film

Film Preservation Society

First-Aid for Water-Damaged Film (8mm)

Please use this text with our video guide Step 1 - 3.

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● Things You Need

Rubber Gloves
for medical use

Mask

Paper & Pen

Ruler

Digital Camera

Basin or Bucket

Toothbrush
as small as possible (kids' size)

Towel

Gauze

Cord

Paper Clip
as small as possible

● If Available

Apron

Sponge
Approx.. 500 yen at retail store's photo supply corner

Fan
Paper or Electrical

Drywell
Approx. 300 yen for 250ml at retail store's photo supply corner

Magnifying Glass

* Please contact us if you cannot get things you need on site.

Introduction

The best way to save water-damaged motion picture films is to send them to specialist institutions such as film archives or film labs. This is because, to avoid such fatal damage as "blocking" (film congealed as a roll) or the growth of mold/bacteria, you really have to wash them as soon as possible and dry them properly. However, not every country or region has such specialist institutions accepting damaged audiovisual materials. So here we try and explain simple and easy washing and the proper way of drying. This procedure can be implemented by anyone without special knowledge or techniques. Although this treatment does not mean a long term preservation solution, at least the possibility of losing the contents forever will decrease. If you feel worried in the slightest or if your collection is old and rare, for example shot in the 1930-40s or much older, please contact us beforehand.

Before you start...

(1) Identify film format

There are various film formats, but 35mm, 16mm, or 8mm films can be identified easily by the width. In this guide, we mainly focus on 8mm films which are most likely to be stored at home.



▲ from left, 8mm, 16mm, 35mm

● Notes

■ About Video Guide

For making the video guide, we used basin size of 40×25cm (Depth 15cm) filled with 5 liters water. As a sample we used 15m long 8mm film (single 8). It was a day of relatively low temp & low humidity in late July, so it took only about 30 minutes for the film to dry. But the time varies depending on the climate and weather, so please be careful to check if it is really dry.

■ About "Drywell"

By immersing the film on its reel in water containing the Drywell solution for about one minute, you can avoid spots on the film later on. It is diluted 200 times. (EX: 1 liter water with 5ml. Drywell). For disposal, please take a look at product data for Drywell at FUJIFILM or ask your local authority. If the product is not available or you cannot ensure proper way of disposal, then please cut this option from the procedure.

■ We offer workshops on demand for First-Aid

Contact

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If the width is 8mm then it is 8mm film but there are two different types: <Super8/Single8> and <Regular8/Double8>.

◀ from left, S8, R8

The difference is just the size of the holes on the edge (perforations), and both can be treated using the same procedure of washing and drying.

In the same way, you can wash 35mm or 16mm, too, if they are short enough. The longer, the more difficult to deal with, so if your film is lengthy then please contact us beforehand.



A black tape in this kind of cartridge is magnetic tape, not motion picture film. For water-damaged magnetic tape (video tape), please contact us beforehand.

(2) Identify film condition

Please eliminate any films in the following condition from A to C.

A: Dirty but not wet, or once wet but already dried up.

B: The whole roll is congealed and the film cannot be pulled out, or the film is sticky and makes noise when it is pulled out.

C: Emulsion (where the image is embedded) is already melting, or it comes off when you touch it.

It all depends on various circumstances but film can often be washed within two weeks after water-damage. If it was over two weeks in the water, its state tends to be more like B or C. If you wash films in B or C, they will get damaged. And even on films that are not wet at all like A, bacteria might grow. Please contact us if your films are in condition A, B or C.

Video Guide about 2 min - Step 1. Five Points to Check

- ① If you find any descriptions on reel/case then keep a record by noting them down or using a digital camera etc. before you start washing. They might come off in the water.
- ② Wear a mask and rubber gloves when you wash film.
- ③ If you use your bare hands, touch only the edges of the film. If you hold the wet film surface tightly your fingerprints might be left, so avoid it if possible.
- ④ To see if the film can withstand water, wipe gently the head of the film with wet cotton gauze, and check after a while if there is curling or warpage. Film with vinegar smell sometimes shows rapid shrinkage. In such cases you cannot go on to the washing stage.
- ⑤ Do not dry the film on reel as it might congeal as it is. If you notice the film drying up on the reel then soak it in water or moisten it by spraying.



Video Guide about 4 min - Step 2. Simple & Easy Washing

1. Figure out the approx. length of the film

Film length varies, but the most likely length for 8mm home movies is about 15m. If the diameter on the reel is about 5cm, the length is about 15m. If the diameter is about 10cm, then the length is about 50m, and 15cm would be about 100m. You should know the approx. length before washing.

2. Fill a large enough basin with clean tap water

The bigger the basin, the easier the washing. But if you cannot get a bigger size then prepare two or more basins or buckets. EX. 10 liter size basin can hold about 30m of 8mm film.



3. Carefully pull out the film from the reel straight into the basin

Pull out the film from the reel in a single direction. Do not pull out in a spiral otherwise the film might get tangled, and this makes it difficult to rewind it later on.

4. Pull out all the film then shake the basin to remove the dirt from it

Do not mix the film by hand otherwise it gets tangled and hard to rewind later on. The first 20-30cm of the film head often has persistent dirt, so wipe this part with cotton gauze or photo sponge. When you rub the film, the emulsion might melt and come off, so be careful. By immersing film in the water, it is possible to remove salt in case the film was in sea water. But if the film is in the water too long then emulsion softens, so please be careful.

5. Clean the empty reel in another basin with a toothbrush

Even if it looks clean, the reel might have small dirt or particles, so please use the brush to clean it.

6. After washing the reel, rewind the film on it, and gently pat the reel dry

If you rewind the film too tight, the film might get damaged, so at this stage rewind it loosely. To avoid the film getting tangled, it is better to rewind from the tail of the film.

Video Guide about 4 min - Step 3 . Drying

1. Stretch a cord in the room for drying

The ideal condition of the room for drying is low temperature, well ventilated, less dust, and no direct sunlight. EX. For drying 15m length 8mm film in the room, you need about four meter long cord to stretch at about 150cm height above the floor.

2. Hang some paper clips on the cord

Reshape the paper clips so that you can hang the film from them by its perforations (holes on the film edge). We do not recommend clothespins/pegs as they might cause scratches on the film.

3. Hang the film by the perforations in U shapes

You need to leave enough space at this stage so that film is not touching. If you dry it touching then it might stick together.



4. After hanging up all the film, wipe it with a squeezed out gauze or photo sponge

You need to wipe off the water drops on the film otherwise spots may appear on the film later on. But if the emulsion is coming off by wiping, stop doing it and just dry as it is. Dry it naturally without using electric hairdryer etc. Rapid drying might cause warping or curling. Using an electrical fan without direct wind blowing at the film but just for air circulation in the room, or even a paper fan to dry is effective.

5. Dry the reel totally while you are drying the film

6. See if the film is totally dry

Even if you cannot see the water drops on it, film can be still wet. Touch the film lightly with your bare hand and check if it is really dry (be careful not to hold the film surface tightly otherwise fingerprints might remain). If you feel the film sticky then it is still wet, although the salt on the film or softened emulsion might cause this stickiness. If you rewind the film before it is totally dry, it might stick together and never come out.

7. Rewind the film on cleaned reel

Rewind the film but do not put too much tension on it. If you pull it too strongly then it might cause damage.
