

Mould Growth Prevention and Remediation

Actions to take after a leak or flood to prevent or remediate the growth of mould.....

The attached sheets contain a chart and the related explanations for the codes used in the chart. The chart indicates how mould growth can be prevented within 48 hours of water damage and also provides general advice on remediation once mould has started.

This information is intended only as a summary of basic procedures and is not intended, nor should it be used, as a detailed guide to mould remediation.

Professional advice should be obtained if the flooding is extensive, the water is contaminated, or mould growth has already become well established. Mould growth generally is not visible for the first 48 hours. If growth is apparent immediately after the flooding it may indicate a more extensive problem or a previously unidentified long-term problem.



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Instructions for using the Chart.....

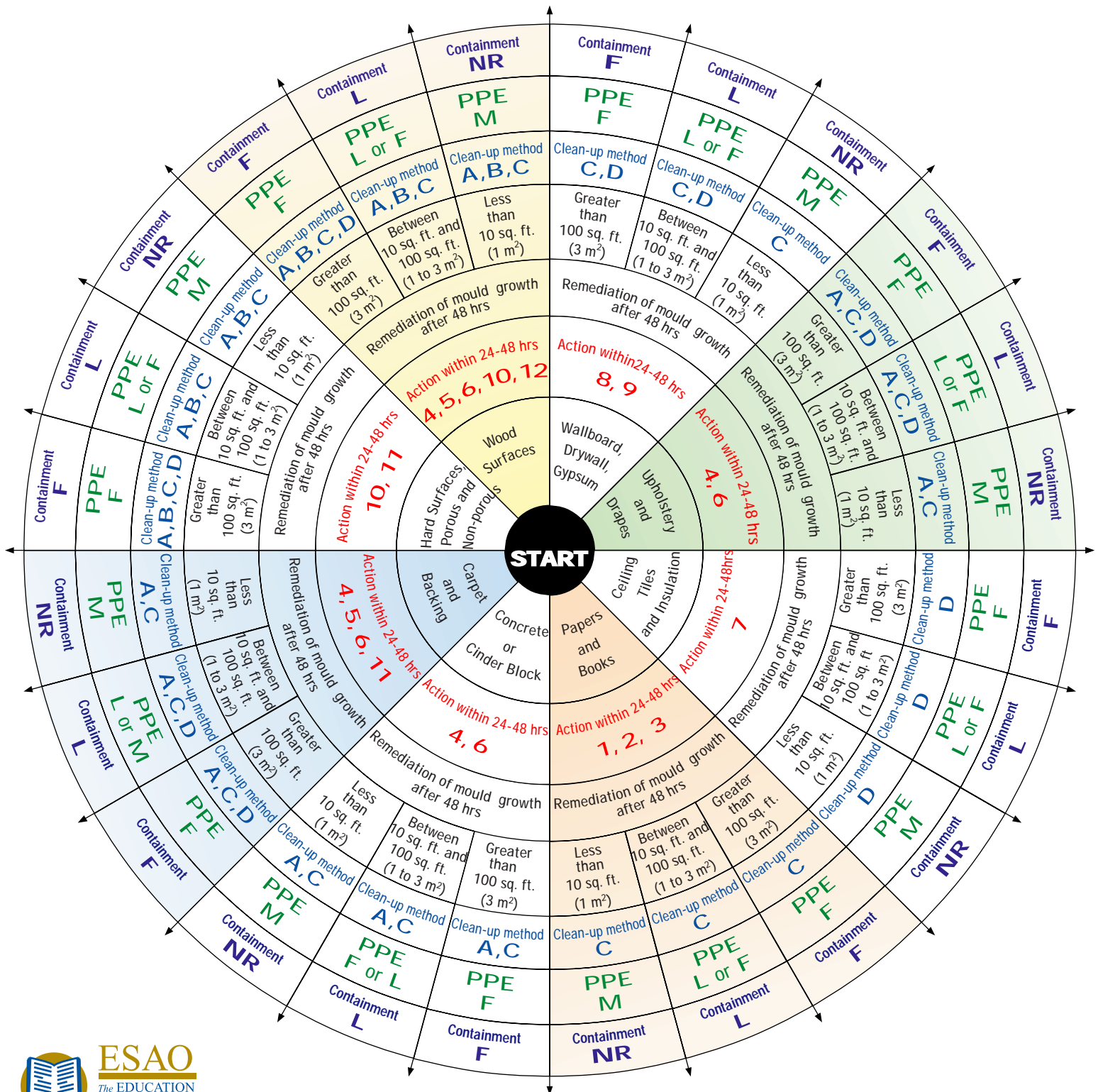
The chart on the next two pages summarizes mould control procedures recommended by the Environmental Protection Agency in the United States.

The chart may look complicated, however it becomes clear and useful when taken one step, or one ring, at a time.

- 1) Start at the centre.
- 2) In the first ring, identify the material of concern.
- 3) In the next ring, find out what actions to take within the first 24-48 hours after **CLEAN** water damage occurs. Actions are numbered 1, 2, 3, 4, and so on. Each is explained under the **Action within 24 - 48 hrs** column on page 3.
- 4) Proceed to the next ring if mould growth is apparent and more than 48 hours have elapsed since the water damage. Determine whether the contaminated area is less than 10 square feet (1 square metre), between 10 and 100 square feet (1 and 3 square metres), or greater than 100 square feet (3 square metres).
- 5) Proceed to the next ring and follow the clean-up method indicated for the size of the contaminated area. Methods are lettered A, B, C, and D. Each is explained under the **Clean-up Methods** column on page 3.
- 6) In the next ring, determine the level of personal protective equipment required. This is indicated by M, L, or F under the **PPE** column and explained in the **PPE (Personal Protective Equipment)** column on page 3.
- 7) Finally, in the outermost ring, determine whether containment is necessary and, if so, whether it must be L (limited) or F (full). These requirements are explained in the **containment** column on page 3.

Mould Remediation Process

Select a process based on the type of material and extent of contamination



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Based on information from:
Mold Remediation in Schools and Commercial Buildings,
United States Environmental Protection Agency, March 2001.

Mould Remediation

Process

Action within 24-48 hours

Actions are for damage caused by clean water. If it is known or suspected that the water is contaminated by sewage or chemical or biological pollutants, consult a professional. Do not use fans unless the water is clean and sanitary. If the mould has grown or materials have been wet for more than 48 hours, consult the chart.

1. Discard non-valuable items.
2. Photocopy valuable items, then discard.
3. Freeze (in frost-free freezer or meat locker) or freeze-dry.
4. Remove water with water-extraction vacuum.
5. Reduce humidity levels with dehumidifiers.
6. Accelerate drying process with fans and/or heaters.
 - Don't use heat to dry carpet.
 - Use caution applying heat to hardwood floors.
7. Discard and replace.
8. May be dried in place, if there is no swelling and the seams are intact. If not, then discard and replace.
9. Ventilate wall cavity.
10. For all treated or finished woods, porous (linoleum, ceramic tile, vinyl) and non-porous (metal, plastic) hard surfaces, vacuum or damp-wipe with water or water and mild detergent and allow to dry; scrub if necessary.
11. For porous flooring and carpets, make sure that subfloor is dry. If necessary clean and dry subfloor material according to chart.
12. Wet paneling should be pried away from walls for drying.

Clean-up Methods

Methods are for damage caused by clean water. If it is known or suspected that the water is contaminated by sewage or chemical or biological pollutants, consult a professional.

These are guidelines only. Other cleaning methods may be preferred by some professionals.

Consult Action within 24-48 hrs in the chart if materials have been wet for less than 48 hours and mould growth is not apparent.

If mould growth is not addressed promptly, some items may be damaged beyond repair. If necessary, consult a restoration specialist.

- A. Wet-vacuum the material. In porous material, some mould spores/fragments will remain but will not grow if material is completely dried. Steam cleaning may be an alternative for carpets and some upholstered furniture.
- B. Damp-wipe surfaces with water or with water and detergent solution (except wood - use wood floor cleaner); scrub as needed.
- C. Use a high-efficiency particulate air (HEPA) vacuum once the material has been thoroughly dried. Dispose of HEPA-vacuum contents in well-sealed plastic bags.
- D. Remove water-damaged materials and seal in plastic bags inside containment area, if there is one. Dispose of as normal waste. HEPA-vacuum area once it is dried.

Precautions

PPE (Personal Protective Equipment)

Use professional judgment to determine PPE for each situation, particularly as the size of the remediation site, and the potential for exposure and health effects, increase. Be prepared to raise PPE requirements if contamination is more extensive than expected.

- M Minimum - Gloves, N-95 respirator, goggles/eye protection.
- L Limited - Gloves, N-95 respirator or half-face respirator with HEPA filter, disposable overalls, goggles/eye protection.
- F Full - Gloves, disposable full-body clothing, head gear, foot coverings, full-face respirator with HEPA filter.

Containment

Use professional judgment to determine containment for each situation, particularly as the size of the remediation site, and the potential for exposure and health effects, increase.

- NR None Required
- L Limited - From floor to ceiling, enclose affected area in polyethylene sheeting with slit entry and covering flap. Maintain area under negative pressure with HEPA-filtered fan. Block supply and return air vents in containment area.
- F Full - Use two layers of fire-retardant polyethylene sheeting with one airlock chamber. Maintain area under negative pressure with HEPA-filtered fan exhausted outside of building. Block supply and return air vents in containment area.

Notes

- a) Upholstery may be difficult to dry within 48 hours. For items with monetary or sentimental value, consult a restoration specialist.
- b) Follow manufacturer's laundering instructions.



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With grateful acknowledgment;

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