

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION PRESERVATION PROGRAMS

The information provided below is intended for emergency recovery and response, not general treatment recommendations.

MAGNETIC MEDIA – FLOPPY DISKS/DISKETTES

Priority Action:

- **Clean and air dry diskettes within 48 hours** or send to a professional data recovery vendor
- **Never freeze, vacuum dry, or expose wet diskettes to heat or high temperatures**
- **The objective is not to save the diskette itself, but to clean it so that the data can be copied onto new media**
- **If backup copies are readily available, discard wet diskettes**

Recommendations:

- **Magnetic diskettes are fairly water-resistant**
 - Data on water stained diskettes is usually recoverable unless diskette itself is magnetically damaged or warped
 - Immediate salvage is preferable; see below for delayed salvage recommendations
- It may be safest to send disks to a professional data recovery vendor for data recovery
 - If so, pack wet disks vertically in sealed plastic bags and ship overnight to a computer recovery service vendor for data recovery
 - Do not dry disks first as dried impurities can scratch magnetic coating

Procedures for Immediate Salvage:

- Gently remove the magnetic diskette from its jacket or protective covering
 - 5 ¼" diskettes: Use scissors to cut off edge of housing to create an opening so the magnetic media can be removed
 - 3 ½" diskettes: Gently pry up metal door, remove spring, and using a microspatula or thin screwdriver, pry open each end to break plastic seal on each side without touching media inside
- Rinse diskette in clean, room temperature distilled water
- If dirt or residue is still on the diskette after rinsing, place it on a smooth, flat surface and gently wipe both sides in a circular motion with a soft, lint-free cotton cloth moistened with distilled water.
- Rinse the diskette again in clean distilled water
- Gently blot off excess water with a soft, lint-free cotton cloth to avoid spotting. Do not use paper towels, as they are too abrasive
- Allow diskette to air dry
- Inspect when dry and remove any remaining spots or residue by gently rubbing with a cotton swab soaked in distilled water. Blot dry.
- Allow the diskette to acclimate to its environment for two days
- If residue still remains on the diskette, clean with a soft, lint-free cotton cloth

- Remove any remaining dust on the diskette by using compressed air
- Insert clean diskette into a new jacket or covering
- Copy diskette using a disk drive
- If copying is not successful, consult a data recovery service

Procedures for Delayed Salvage (no longer than 72 hours):

(Use only when immediate response is not possible. Be aware that the success rate of recovery efforts is likely to be decreased the longer salvage is delayed.)

- Rinse the diskette in clean, room temperature distilled water
- Store diskettes upright without crowding in cool distilled water (41°F/5°C) until recovery can occur
- For recovery, follow directions as listed under Immediate Salvage above

Recommended Supplies:

- Distilled water
- Clean, lint-free cotton cloth
- Microspatula
- Compressed air

Salvage information above from: Iraci, Joe. *Disaster Recovery of Modern Information Carriers; Compact Discs, Magnetic Tapes, and Magnetic Discs*. CCI Technical Bulletin #25, 2002.

Contact information for selected vendors can be found at:

<http://www.archives.gov/preservation/disaster-response/vendors.html>

Related media:

[\[Link to CD/DVD\]](#)

[\[Link to Hard Drives\]](#)

[\[Link to Audio, Video, and Data Storage Tape\]](#)

The information and links provided by NARA are offered as a service and do not imply endorsement of any company, institution, or person. The scale of the emergency and types of materials affected will determine the specific actions or techniques to be taken and whether in house salvage is possible or whether external resources and expertise are necessary.