

## NATIONAL ARCHIVES AND RECORDS ADMINISTRATION PRESERVATION PROGRAMS

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

### OPTICAL MEDIA – CD/DVD

#### *Priority Action:*

- **Clean and air dry discs within 48 hours**
- **Never freeze, vacuum dry, or expose wet discs to heat**
- **It is usually easier to discard wet discs if backup copies are readily available**

#### *Recommendations:*

- **Recovery of CDs/DVDs is time sensitive**
  - The metal reflective layer responsible for conveying disc data is thin and easily damaged
  - High quality discs have an outer protective layer that is water resistant during short exposures (less than 2 days)
  - Poor quality discs will incur damage sooner
- **Avoid scratching the surface of the disc during the cleaning process**

#### *Immediate Salvage Procedures:*

- Remove CDs/DVDs from their cases/cartridges
  - If cases/cartridges cannot be replaced, clean them with soap and water
  - Case and paper enclosures may be air dried or freeze dried
- Hold and handle discs by their outer edges
- Rinse discs in cool clean tap water followed by distilled water
- If residue remains on the discs, **wipe gently from center out to edges in a straight line**, not in a circular motion, with a soft, lint-free cotton cloth dampened with distilled water
- Rinse discs again in distilled water
- Blot off excess water with a soft, clean, lint-free cloth or cheesecloth
- Place discs flat on tissue with label side down to air dry or dry vertically on racks
- Never attempt mechanical removal of a label as this may result in delaminating the disc
- Play or analyze discs to determine if they must undergo more forceful spot removal techniques
- Copy information on discs to new media

#### *Delayed Salvage Procedures:*

*(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.)*

- Leave discs in their cases/cartridges
- Rinse discs in clean distilled water

- If discs have been immersed in sea water, rinsing in distilled water is highly recommended
- Store discs in cool water (41°F/5°C) until recovery can occur
- Recover discs as soon as possible using the procedures above

*Recommended Supplies:*

- Distilled water
- Clean, soft, lint-free tissue, cloth, or cheesecloth

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

Related media:

[Hard Drives](#)

[Magnetic Diskettes](#)

[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*