



**ALDON CORPORATION**

# MATERIAL SAFETY DATA SHEET

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MSDS No. FF 50  
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## SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

|                          |                                      |  |          |        |          |      |         |   |   |   |   |   |        |   |      |   |            |   |
|--------------------------|--------------------------------------|--|----------|--------|----------|------|---------|---|---|---|---|---|--------|---|------|---|------------|---|
| <b>Product</b>           | FEHLING'S SOLUTION (B)               |  <p>CHEMTREC<br/>800-424-9300<br/>Day 716-226-6177</p> <p>NFPA<br/>HAZARD RATING</p> <table border="1"> <tr> <td>LEAST</td> <td>SLIGHT</td> <td>MODERATE</td> <td>HIGH</td> <td>EXTREME</td> </tr> <tr> <td>0</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> </table> <p>HMIS *</p> <table border="1"> <tr> <td>Health</td> <td>3</td> </tr> <tr> <td>Fire</td> <td>0</td> </tr> <tr> <td>Reactivity</td> <td>2</td> </tr> </table> | LEAST    | SLIGHT | MODERATE | HIGH | EXTREME | 0 | 1 | 2 | 3 | 4 | Health | 3 | Fire | 0 | Reactivity | 2 |
| LEAST                    | SLIGHT                               |  | MODERATE | HIGH   | EXTREME  |      |         |   |   |   |   |   |        |   |      |   |            |   |
| 0                        | 1                                    |  | 2        | 3      | 4        |      |         |   |   |   |   |   |        |   |      |   |            |   |
| Health                   | 3                                    |  |          |        |          |      |         |   |   |   |   |   |        |   |      |   |            |   |
| Fire                     | 0                                    |  |          |        |          |      |         |   |   |   |   |   |        |   |      |   |            |   |
| Reactivity               | 2                                    |  |          |        |          |      |         |   |   |   |   |   |        |   |      |   |            |   |
| <b>Chemical Synonyms</b> | Fehling's Alkaline Tartrate Solution |  |          |        |          |      |         |   |   |   |   |   |        |   |      |   |            |   |
| <b>Formula</b>           | Mixture. See Section II.             |  |          |        |          |      |         |   |   |   |   |   |        |   |      |   |            |   |
| <b>Unit Size</b>         | up to 4 Lt.                          |  |          |        |          |      |         |   |   |   |   |   |        |   |      |   |            |   |
| <b>C.A.S. No.</b>        | Mixture. See Section II.             |  |          |        |          |      |         |   |   |   |   |   |        |   |      |   |            |   |

## SECTION II INGREDIENTS OF MIXTURES

| Principal Component(s)                         | %   | TLV Units                        |
|--|-----|----------------------------------|
| Potassium Sodium Tartrate: (CAS No. 6381-59-5) | 34% | None established.                |
| Potassium Hydroxide: (CAS No. 1310-58-3)       | 25% | TWA: 2 mg/m <sup>3</sup> Ceiling |
| Water: (CAS No. 7732-18-5)                     | 41% | None established.                |

**DANGER! CORROSIVE!**  **POISON. CAUSES SEVERE BURNS. MAY BE FATAL IF SWALLOWED.**

## SECTION III PHYSICAL DATA

|                        |                                   |   |                 |
|------------------------|-----------------------------------|---|-----------------|
| Melting Point (°F)     | Not applicable.                   | Specific Gravity (H <sub>2</sub> O = 1) | Approx. 1.5     |
| Boiling Point (°F)     | Approx. 110°C (230°F)             | Percent Volatile by Volume (%)          | 41%             |
| Vapor Pressure (mm Hg) | 14 (water)                        | Evaporation Rate (Ether = 1)            | Greater than 1. |
| Vapor Density (Air=1)  | 0.7 (water)                       |   |                 |
| Solubility in Water    | Complete.                         |   |                 |
| Appearance & Odor      | Clear, colorless liquid; no odor. |   |                 |

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

|                                  |   |                                     |    |       |       |
|----------------------------------|---|-------------------------------------|----|-------|-------|
| <b>Flash Point (Method Used)</b> | Non-flammable liquid.                                     | Flammable Limits in Air % by Volume | NA | Lower | Upper |
| <b>Extinguisher Media</b>        | Use any media suitable for extinguishing supporting fire. |                                     |    |       |       |

### SPECIAL FIREFIGHTING PROCEDURES

If involved in a fire, flood with water, taking care not to splatter or splash. Wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective clothing. A severe eye hazard; destroys tissue on contact.

(1996 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.7, GUIDE PAGE NO. 154)

### UNUSUAL FIRE AND EXPLOSION HAZARDS

Contact with some metals can generate hydrogen gas (a flammable gas).

## SECTION V HEALTH HAZARD DATA

FF 50

**Threshold Limited Value** TWA: Potassium Hydroxide [CAS 1310-58-3]: 2 mg/m<sup>3</sup> Ceiling.  
Toxicity: Oral (Rat) LD50 365 mg/Kg. (ACGIH 1992-93).

**Effects of Overexposure** **DANGER! CORROSIVE!**  **POISON**  **CAUSES SEVERE BURNS.** Avoid contact with skin, eyes, mucous membranes and clothing. Potassium hydroxide is a strong alkali, it can be destructive of all human tissue it contacts; produces severe burns. **EYE OR INHALATION:** Can cause permanent injury.

**Emergency and First Aid Procedures** **SKIN:** Flood with water, then wash with vinegar. **INGESTION:** If swallowed, if conscious, drink large quantities of water. Do **NOT** induce vomiting. Call physician immediately. Never give anything by mouth to an unconscious person. **EYES:** Flush thoroughly with water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get prompt medical attention. **INHALATION AS MIST:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

## SECTION VI REACTIVITY DATA

|                  |                 |   |   |
|------------------|-----------------|---|---|
| <b>Stability</b> | <b>Unstable</b> |   | <b>Conditions to Avoid</b> Reacts with carbon dioxide from the air to form potassium carbonate. |
|                  | <b>Stable</b>   | X |   |

**Incompatibility (Materials to Avoid)** Acids and strong oxidizers. Avoid contact with leather, wool, aluminum, tin, zinc and alloys which contain these metals.

**Hazardous Decomposition Products** Thermal decomposition or burning can produce carbon dioxide and/or carbon monoxide.

|                                 |                            |
|---------------------------------|----------------------------|
| <b>Hazardous Polymerization</b> | <b>Conditions to Avoid</b> |
| <b>May Occur</b>                | <b>Will Not Occur</b>      |
|                                 | X                          |
|                                 | Not applicable.            |

## SECTION VII SPILL OR LEAK PROCEDURES

**Steps to be taken in case material is released or spilled** Neutralize with sodium bisulfate and flush to sewer with copious amounts of water. Follow by flushing spill area with water.

**Waste Disposal Method** Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.  
Neutralize with sodium bisulfate and flush to sewer with copious amounts of water.

## SECTION VIII SPECIAL PROTECTION INFORMATION

**Respiration Protection (Specify Type)** None should be needed in normal laboratory handling. If misty conditions prevail, work in a ventilation hood or wear a NIOSH/MSHA-approved self-contained breathing apparatus.

|                    |                             |               |                |     |
|--------------------|-----------------------------|---------------|----------------|-----|
| <b>Ventilation</b> | <b>Local Exhaust</b>        | Not required. | <b>Special</b> | No. |
|                    | <b>Mechanical (General)</b> | Not required. | <b>Other</b>   | No. |

|                          |         |                       |  |
|--------------------------|---------|-----------------------|--|
| <b>Protective Gloves</b> | Rubber. | <b>Eye Protection</b> | Chemical safety glasses, goggles, face shield. |
|--------------------------|---------|-----------------------|--|

**Other Protective Equipment** Goggles, face shield, smock, apron, eye wash station, proper gloves.

## SECTION IX SPECIAL PRECAUTIONS

**Precautions to be Taken in Handling & Storing** Store in a cool place away from acids or acid fumes or oxidizing agents. Wash thoroughly after handling.  
Keep container tightly closed when not in use.

**Other Precautions** Read label on container before using. Do not wear contact lenses when working with chemicals.  
Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

|                       |                     |                                 |                                       |
|-----------------------|---------------------|---------------------------------|---------------------------------------|
| <b>Revision</b> No. 6 | <b>Date</b> 2/25/99 | <b>Approved</b> Michael Raszeja | <b>Chemical Safety Coordinator</b> MR |
|-----------------------|---------------------|---------------------------------|---------------------------------------|

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D.O.T. **POTASSIUM HYDROXIDE, SOLUTION, 8, UN 1814, PG III**

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20