

## Section 1 Chemical Product and Company Information



80 Northwest Blvd.  
Nashua, NH 03063  
(800) 225-3739

**CHEMTREC 24 Hour Emergency**  
**Phone Number (800) 424-9300**  
For laboratory use only.  
Not for drug, food or household use.

|                 |                                      |
|-----------------|--------------------------------------|
| <b>Product</b>  | <b>FEHLING'S SOLUTION B</b>          |
| <b>Synonyms</b> | Fehling's Alkaline Tartrate Solution |

## Section 2 Hazards Identification

**Signal word:** DANGER

**Pictograms:** GHS05 / GHS07

**Target organs:** None known



**GHS Classification:**

Acute tox. (Category 4)

Skin corr. (Category 1A)

**GHS Label information: Hazard statement:**

H302: Harmful if swallowed.

H314: Causes severe skin burns and eye damage.

**Precautionary statement:**

P260: Do not breathe mist/vapours/spray.

P264: Wash hands thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P312: Call a POISON CENTER or doctor if you feel unwell.

P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310: Immediately call a POISON CENTER or doctor.

P363: Wash contaminated clothing before reuse.

P405: Store locked up.

P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

Ca Prop 65 - This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

## Section 3 Composition / Information on Ingredients

| Chemical Name             | CAS #     | %            | EINECS    |
|---------------------------|-----------|--------------|-----------|
| Potassium sodium tartrate | 6381-59-5 | 36.84% (w/v) | 206-156-8 |
| Water                     | 7732-18-5 | 35.50% (w/v) | 231-791-2 |
| Potassium hydroxide       | 1310-58-3 | 27.66% (w/v) | 215-181-3 |

## Section 4 First Aid Measures

**INGESTION:** HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**EYE CONTACT:** CAUSES EYE DAMAGE. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

**SKIN ABSORPTION:** CAUSES SKIN BURNS. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

## Section 5 Fire Fighting Measures

**Suitable Extinguishing Media:** Use any media suitable for extinguishing supporting fire

**Protective Actions for Fire-fighters:** In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

**Specific Hazards:** During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

## Section 6 Accidental Release Measures

**Personal Precautions:** Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

**Environmental Precautions:** Avoid runoff into storm sewers and ditches which lead to waterways.

**Containment and Cleanup:** Absorb with inert dry material, sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

## Section 7 Handling & Storage

**Precautions for Safe Handling:** Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale vapors, spray or mist. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

**Conditions for Safe Storage:** Store in a cool, well-ventilated area away from incompatible substances.

## Section 8 Exposure Controls / Personal Protection

| Exposure Limits: | Chemical Name       | ACGIH (TLV)                | OSHA (PEL)       | NIOSH (REL)                |
|------------------|---------------------|----------------------------|------------------|----------------------------|
|                  | Potassium hydroxide | STEL: C 2mg/m <sup>3</sup> | None established | STEL: C 2mg/m <sup>3</sup> |

**Engineering controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

**Respiratory protection:** None should be needed in normal laboratory handling at room temperatures. If misty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

## Section 9 Physical & Chemical Properties

|   |  |  |
|---|--|--|
| <b>Appearance:</b> Clear, colorless liquid.<br><b>Odor:</b> No odor.<br><b>Odor threshold:</b> Data not available.<br><b>pH:</b> Data not available.<br><b>Melting / Freezing point:</b> ~0°C (32°F) (water)<br><b>Boiling point:</b> ~100°C (212°F) (water)<br><b>Flash point:</b> Data not available. | <b>Evaporation rate ( Water = 1):</b> <1<br><b>Flammability (solid/gas):</b> Data not available.<br><b>Explosion limits: Lower / Upper:</b> Data not available.<br><b>Vapor pressure (mm Hg):</b> 14 (water)<br><b>Vapor density (Air = 1):</b> 0.7 (water)<br><b>Relative density (Specific gravity):</b> Approximately 1.1<br><b>Solubility(ies):</b> Complete in water. | <b>Partition coefficient:</b> (n-octanol / water): Data not available.<br><b>Auto-ignition temperature:</b> Data not available.<br><b>Decomposition temperature:</b> Data not available.<br><b>Viscosity:</b> Data not available.<br><b>Molecular formula:</b> Mixture<br><b>Molecular weight:</b> Mixture |
|---|--|--|

## Section 10 Stability & Reactivity

**Chemical stability:** Stable

**Hazardous polymerization:** Will not occur.

**Conditions to avoid:** Excessive temperatures which cause evaporation.

**Incompatible materials:** Strong oxidizers, acids, aluminum, halogens, nitro compounds, organic materials, acid chlorides, acid anhydrides, magnesium, copper, tin and zinc.

**Hazardous decomposition products:** Hydrogen gas in contact with metals.

## Section 11 Toxicological Information

**Acute toxicity:** Oral-rat LD50: 365 mg/kg [Potassium hydroxide]

**Skin corrosion/irritation:** Skin-rabbit - Corrosive [Potassium hydroxide]

**Serious eye damage/irritation:** Eyes-rabbit - Corrosive [Potassium hydroxide]

**Respiratory or skin sensitization:** Data not available

**Germ cell mutagenicity:** Data not available

**Carcinogenicity:** Data not available

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity:** Data not available

**STOT-single exposure:** Data not available

**STOT-repeated exposure:** Data not available

**Aspiration hazard:** Data not available

**Potential health effects:**

Inhalation: May be harmful by inhalation.

Ingestion: Harmful by ingestion.

Skin: Contact with skin causes burns.

Eyes: Contact causes damage.

**Signs and symptoms of exposure:** Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting.

**Additional information:** RTECS #: TT2100000 [Potassium hydroxide]

## Section 12 Ecological Information

**Toxicity to fish:** Gambus affinis (fish, fresh water), LC50 = 85 mg/l/24 hours [Potassium hydroxide]

**Toxicity to daphnia and other aquatic invertebrates:** No data available

**Toxicity to algae:** No data available

**Persistence and degradability:** No data available

**Bioaccumulative potential:** No data available

**Mobility in soil:** No data available

**PBT and vPvB assessment:** No data available

**Other adverse effects:** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

## Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

## Section 14 Transport Information

**UN/NA number:** UN1814

**Shipping name:** Potassium hydroxide, solution

**Hazard class:** 8

**Packing group:** III

**Reportable Quantity:** 1,000 lbs (454 kg)

**Marine pollutant:** No

**Exceptions:** Limited quantity equal to or less than 5 L

**2012 ERG Guide #** 154

## Section 15 Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

| Component           | TSCA   | CERCLA (RQ) | RCRA code  | DSL    | NDSL       | WHMIS Classification |
|---------------------|--------|-------------|------------|--------|------------|----------------------|
| Potassium hydroxide | Listed | Listed      | D002, D003 | Listed | Not listed | E; D1B               |

## Section 16 Additional Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

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**Supersedes:** December 10, 2013