Section 1: Identification

- **Product Name**: Phosphoric Acid and 2% Sodium Chloride Solution
- **Synonyms**: Phosphoric Acid and Salt Solution
- **Product Code**: Nital Salt
- **Manufacturer**:
  PACE Technologies
  3601 E. 34th St.
  Tucson, AZ 85713
  +1-520-882-6598
- **Emergency Phone Number**:
  CHEMTREC 800-424-9300 (US) Day or night
  Customer No. 16568

Section 2: Hazard Identification

Classification of the Substance or Mixture (GHS Classification)

- **Phosphoric Acid (H_3PO_4)**:
  - Corrosive to Metals: Category 1
  - Skin Corrosion/Irritation: Category 1B
  - Serious Eye Damage/Irritation: Category 1
- **2% Sodium Chloride (NaCl)**: Not hazardous at this concentration

Label Elements

- **Pictograms**:

- **Signal Word**: **Danger**
- **Hazard Statements**:
  - **Phosphoric Acid**:

- H290: May be corrosive to metals.
- H314: Causes severe skin burns and eye damage.

- **2% Sodium Chloride**: Not hazardous at this concentration.

- **Precautionary Statements**:
  - **Prevention**:
    - P234: Keep only in original packaging.
    - P260: Do not breathe dust/fume/gas/mist/vapors/spray.
    - P264: Wash hands thoroughly after handling.
    - P280: Wear protective gloves/protective clothing/eye protection/face protection.
  - **Response**:
    - P301 + P330 + P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
    - P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
    - P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
  - **Storage**:
    - P405: Store locked up.
  - **Disposal**:
    - P501: Dispose of contents/container to an approved waste disposal facility in accordance with local, regional, national, and international regulations.

Section 3: Composition/Information on Ingredients

Substance	CAS Number	Concentration (% w/w)
Phosphoric Acid	7664-38-2	98-99%
Sodium Chloride (NaCl)	7647-14-5	1-2%

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Substance	CAS Number	Concentration (% w/w)
Water	7732-18-5	Balance

Section 4: First-Aid Measures

- **Inhalation**: Move to fresh air. If breathing is difficult, administer oxygen. Seek medical attention if symptoms occur.
- **Skin Contact**: Immediately flush with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Seek medical attention for burns or persistent irritation.
- **Eye Contact**: Rinse cautiously with water for at least 15 minutes. Remove contact lenses if possible. Seek immediate medical attention.
- **Ingestion**: Do NOT induce vomiting. Rinse mouth with water. Seek medical attention immediately.

Section 5: Fire-Fighting Measures

- **Suitable Extinguishing Media**: Use water spray, dry chemical, carbon dioxide, or foam. Do not use water jets directly on the acid.
- **Special Hazards Arising from the Substance or Mixture**: Phosphoric acid may decompose at high temperatures, releasing toxic and corrosive fumes including phosphorus oxides.
- **Protective Equipment for Firefighters**: Use self-contained breathing apparatus and full protective gear.

Section 6: Accidental Release Measures

- **Personal Precautions**: Evacuate the area. Use appropriate personal protective equipment (PPE). Ensure proper ventilation.
- **Environmental Precautions**: Prevent spillage from entering drains, waterways, or soil.
- **Methods for Containment and Cleanup**: Neutralize small spills with a dilute sodium carbonate (Na_2CO_3) solution. Absorb with inert material, and dispose of in accordance with local regulations.

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Section 7: Handling and Storage

- **Precautions for Safe Handling**: Avoid contact with skin, eyes, and clothing. Do not inhale vapors. Handle in a well-ventilated area.
- **Conditions for Safe Storage**: Store in corrosion-resistant containers in a cool, well-ventilated area away from incompatible materials such as strong bases and metals.

Section 8: Exposure Controls/Personal Protection

Control Parameters

- **Phosphoric Acid**:
  - **OSHA PEL**: 1 mg/m³
  - **ACGIH TLV**: 1 mg/m³ (TWA); 3 mg/m³ (STEL)

Personal Protective Equipment (PPE)

- **Respiratory Protection**: If airborne concentrations exceed the permissible exposure limit, use a NIOSH-approved respirator.
- **Hand Protection**: Wear acid-resistant gloves (e.g., nitrile, butyl rubber).
- **Eye Protection**: Wear chemical safety goggles and/or a full face shield.
- **Skin Protection**: Use acid-resistant clothing as needed to protect from spills and splashes.
- **Engineering Controls**: Ensure adequate ventilation, especially in confined areas.

Section 9: Physical and Chemical Properties

- **Appearance**: Clear, colorless liquid
- **Odor**: Odorless
- **pH**: Acidic (dependent on phosphoric acid concentration)
- **Melting/Freezing Point**: Approx. 0°C (for water-based solution)
- **Boiling Point**: Approx. 100°C
- **Flash Point**: Not applicable
- **Solubility**: Completely soluble in water

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- **Vapor Pressure**: Similar to water (for dilute solutions)
- **Density**: Varies with concentration
- **Viscosity**: Similar to water (for dilute solutions)

Section 10: Stability and Reactivity

- **Reactivity**: Phosphoric acid reacts with strong bases, metals, and oxidizing agents.
- **Chemical Stability**: Stable under normal conditions.
- **Conditions to Avoid**: Avoid exposure to heat and incompatible materials.
- **Incompatible Materials**: Strong bases, metals (may release hydrogen gas), strong oxidizers.
- **Hazardous Decomposition Products**: Phosphorus oxides.

Section 11: Toxicological Information

- **Acute Toxicity**:
    - **Phosphoric Acid**: May cause burns to skin and eyes. Harmful if ingested or inhaled.
    - **Sodium Chloride**: Non-hazardous at low concentrations.
- **Skin Corrosion/Irritation**: Phosphoric acid causes severe burns.
- **Serious Eye Damage/Irritation**: Causes serious eye damage (phosphoric acid).
- **Carcinogenicity**: Not classified as a carcinogen.
- **Reproductive Toxicity**: No known significant effects.
- **Aspiration Hazard**: Not applicable.

Section 12: Ecological Information

- **Ecotoxicity**: Phosphoric acid can be harmful to aquatic life in large quantities.
- **Persistence and Degradability**: Phosphoric acid is readily neutralized in the environment.
- **Bioaccumulative Potential**: Phosphoric acid does not bioaccumulate.

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- **Mobility in Soil**: High mobility due to water solubility.

Section 13: Disposal Considerations

- **Waste Disposal**: Dispose of waste in accordance with local, regional, national, and international regulations. Neutralize the solution before disposal.

Section 14: Transport Information

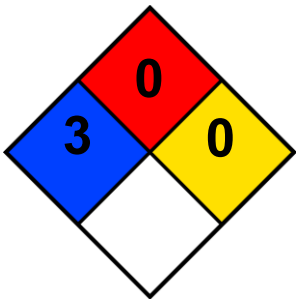
- **UN Number**: UN1805
- **Proper Shipping Name**: Phosphoric Acid Solution
- **Hazard Class**: 8 (Corrosive)
- **Packing Group**: III
- **Environmental Hazards**: None known.

Section 15: Regulatory Information

- **OSHA**: Hazardous according to OSHA Hazard Communication Standard.
- **SARA 313**: Not subject to reporting.
- **TSCA**: All components are listed on the TSCA Inventory.

Section 16: Other Information

16.1 NFPA 704



• **Health (3)**: Phosphoric acid is corrosive and can cause severe skin burns, eye damage, and respiratory irritation. A rating of 3 indicates serious injury could result from exposure.
• **Flammability (0)**: Phosphoric acid and sodium chloride solutions are non-flammable.• **Reactivity (0)**: Phosphoric acid in dilute form (like in this mixture) is stable under normal

conditions. A rating of 0 means that the mixture is generally stable and poses no significant reactivity hazard.

- **Special Hazards (none)**: No special hazard symbols are required for this mixture.

Product Use:
Laboratory Reagent.

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DATE REVISED: 7/22/2025 DZ

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