# SAFETY DATA SHEET (SDS)

Version: 1.0
Issue Date: 01/15/2026

## SECTION 1. IDENTIFICATION

**1.1 Product Identifier**

- **Product Name**: BOREALIS 30% VINEGAR CONCENTRATE
- **Product Code (SKU)**: A005
- **Recommended Use:** Professional-grade concentrated acidic cleaning and descaling agent (30%) for multi-purpose use.
- **Restrictions of Use:** For professional use only. **DO NOT MIX** with chlorine (bleach), ammonia, or other household chemicals. Do not use on certain metals, including aluminum, brass, bronze, copper (and its alloys), iron, zinc, or other metal oxides and salts. Do not use it on surfaces that are not acid-resistant.

**1.2 Details of the Supplier**

- **Company Name**: BOREALIS LLC
- **Address**: 4653 Nall Rd. Farmers Branch, TX 75244, USA
- **Website**: www.borealisproclean.com
- **Email**: info@borealisproclean.com
- **Telephone:** [+1 787 468 5388]

**1.3 Emergency Telephone Numbers**

- **Medical Emergency / Poison Control Center (24/7)**: 1-800-222-1222
- **Fire / Police / Ambulance**: 911

## SECTION 2. HAZARD(S) IDENTIFICATION

**2.1 Classification of the Substance or Mixture (GHS-US)**

- **Corrosive to Metals**: Category 1
- **Skin Corrosion/Irritation**: Category 1B
- **Serious Eye Damage**: Category 1
- **Specific Target Organ Toxicity (Single Exposure)**: Category 3 (Respiratory irritation)

**2.2 GHS Label Elements**

- **Hazard Pictograms**:

- **Signal Word**: **DANGER**

- **Hazard Statements**:
  - **H290**: May be corrosive to metals.
  - **H314**: Causes severe skin burns and eye damage.
  - **H335**: May cause respiratory irritation.
- **Precautionary Statements**:
  - **Prevention**: Keep only in original packaging. Do not breathe vapors or mist. Wash skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves, protective clothing, eye protection, and face protection.
  - **Response**:
    - **IF SWALLOWED**: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor.
    - **IF INHALED**: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or doctor.
    - **IF IN EYES**: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor.
    - **IN CASE OF SPILL**: Absorb spillage to prevent material damage.
  - **Storage**: Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store in a corrosion-resistant container with a resistant inner liner.
  - **Disposal**: Dispose of contents and container in accordance with local, state, and federal regulations.

**2.3 Other Hazards**

- **Fall Hazard**: Spilled product creates extremely slippery conditions.
- Concentrated vapors can cause severe eye irritation and damage to nasal mucosa.

## SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

**Mixture**

| Chemical Name | CAS No. | Concentration (%) |
|---|---|---|
| Water | 7732-18-5 | Balance |
| Glacial Acetic Acid | 64-19-7 | 20 – 40 % |

***The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. The hazards associated with these components are reflected in Section 2.***

## SECTION 4. FIRST-AID MEASURES

- **General Advice**: Prompt treatment is essential. Show this safety data sheet to the doctor in attendance. Do not leave the victim unattended.
- **Inhalation**: Move to fresh air immediately. Acetic acid is highly volatile; if wheezing or difficulty breathing occurs, oxygen should be administered by trained personnel. Keep the victim at rest and warm. Seek medical attention if irritation persists.
- **Skin Contact**: Immediate emergency washing with running water for at least 15-20 minutes. Prolonged contact causes deep chemical burns. If irritation persists or

tissue damage is observed, consult a dermatologist. Remove and decontaminate shoes and clothing before reuse.
- **Eye Contact**: Immediate emergency flushing with low-pressure running water for a minimum of **20 minutes**, keeping eyelids wide open. Rotate eyes during flushing. **Speed is critical to avoid permanent corneal damage and risk of irreversible blindness.** Obtain immediate ophthalmological attention.
- **Ingestion**: Risk of esophageal perforation. Rinse mouth with water. **DO NOT induce vomiting** due to risk of aspiration. If the victim is conscious, give small sips of water. Seek immediate emergency medical attention.

## SECTION 5. FIRE-FIGHTING MEASURES

- **Suitable Extinguishing Media**: Water mist, $CO_2$, or dry chemical powder. Water is useful for cooling exposed containers.
- **Unsuitable Extinguishing Media**: Do not use solid water streams as they may scatter and spread the fire.
- **Specific Hazards**: Acetic acid releases carbon oxides (CO, $CO_2$) and irritating acid vapors in fires. It reacts violently with strong oxidizing agents.
- **Protective Equipment**: Firefighters must wear positive-pressure self-contained breathing apparatus (SCBA) and full chemical-resistant protective suits. Use water to cool containers exposed to fire even after the fire is out.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

- **Personal Precautions**: Evacuate personnel to safe areas. Keep people away from and upwind of the spill. Use personal protective equipment (Goggles, face shield, acid-resistant gloves, rubber boots). Avoid contact with skin and eyes. Do not breathe vapors.
- **Environmental Precautions**: Contain the spill. Prevent product from entering sewers, surface water, or groundwater. Acidity can be harmful to aquatic life.
- **Cleanup Methods**:
    - **Small Spills**: Cover with inert absorbent material (dry earth, sand). Carefully neutralize with sodium carbonate (soda ash), sodium bicarbonate, or lime. Collect in appropriate containers.
    - **Large Spills**: Dike to contain flow. Pump recoverable liquid into corrosion-resistant containers. Neutralize residue before washing the area with water.

## SECTION 7. HANDLING AND STORAGE

- **Handling**: Always use in well-ventilated areas. Avoid inhalation of vapors or mists. Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after handling.
- **WARNING**: Do not mix with chlorine (bleach) or products containing chlorine, as toxic chlorine gas will be released.
- **Storage**: Store in a cool, dry, and well-ventilated place. Keep container tightly closed. Store in original plastic or corrosion-resistant containers. Keep away from strong oxidizing agents, strong bases, and metals. Protect from freezing (freezing

point near that of water).

## SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**8.1 Control Parameters**

- **Acetic Acid (64-19-7)**: OSHA PEL-TWA: 10 ppm (25 mg/m³); ACGIH TLV-TWA: 10 ppm.

**8.2 Engineering Controls**

- Ensure exhaustive general and local ventilation. Eye wash stations and safety showers must be located near the work area.

**8.3 Personal Protective Equipment (PPE - HMIS Code H)**

- **Eye/Face Protection**: Tight-fitting chemical splash goggles and full face shield.
- **Skin Protection**: Long-sleeve butyl rubber (recommended for acetic acid) or nitrile gloves and a rubber or vinyl apron.
- **Respiratory Protection**: If exposure limits are exceeded, use a NIOSH-approved respirator with cartridges for organic vapors/acids.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- **Appearance**: Clear, colorless liquid.
- **Olor**: Strong, pungent vinegar odor.
- **pH Range**: 0.5 – 2.5.
- **Apparent Density Range (as measured) (g/ml):** 1.01 – 1.05.
- **Viscosity Range (mPa·s)**: 1-4.

Unless otherwise specified, physical and chemical properties were measured at approximately 25°C. Values represent typical ranges observed during small-batch production; variability may occur due to raw material lot differences, entrained air/foam, temperature, and storage conditions.

## SECTION 10. STABILITY AND REACTIVITY

- **Reactivity**: Reacts violently with strong bases. Corrosive to metals.
- **Chemical Stability**: Stable under normal conditions of use and storage.
- **Conditions to Avoid**: Excessive heat. Freezing. Contact with incompatible materials.
- **Incompatible Materials**:
    - **Strong bases** (Caustic soda, Potash).
    - **Strong oxidizing agents** (Peroxides, Chromates).
    - **Metals** (Iron, Zinc, Aluminum) - releases Hydrogen.
    - **Hypochlorites** (Chlorine/Bleach) - releases Chlorine gas.
- **Hazardous Decomposition Products**: Acetic acid vapors. Carbon oxides (CO, $CO_2$) (during combustion). Hydrogen gas (in contact with metals).

## SECTION 11. TOXICOLOGICAL INFORMATION

- **Acute Toxicity**:
    - **Oral (Rat) LD50**: **3310 mg/kg** (Based on acetic acid).
    - **Dermal (Rabbit) LD50**: **1060 mg/kg** (Based on acetic acid).
- **Skin Corrosion/Irritation**: Causes severe skin burns (Category 1B).
- **Serious Eye Damage/Eye Irritation**: Causes serious eye damage. Risk of irreversible blindness.
- **Skin Sensitization**: Not classified as a sensitizer.
- **Carcinogenicity**: This product does not contain ingredients listed as carcinogens by IARC, NTP, or OSHA.
- **Reproductive Toxicity**: No information available.

## SECTION 12. ECOLOGICAL INFORMATION

- **Ecotoxicity**: The product may be harmful to aquatic organisms due to extreme acidity (low pH) if released in large quantities without neutralization.
- **Persistence and Degradability**: No data available for this specific mixture. Readily biodegradable based on component data.
- **Bioaccumulative Potential**: No data available for this mixture.
- **Mobility in Soil**: No data available. Highly mobile due to solubility.
- **Other Adverse Effects**: Not known.

## SECTION 13. DISPOSAL CONSIDERATIONS

- **Waste**: The concentrated product is a hazardous waste due to its **Corrosivity characteristic (RCRA Code D002)**. Carefully neutralize and dilute before any authorized final disposal. All **local, state, and federal regulations** applicable to chemical waste disposal must be followed.
- **Contaminated Packaging**: Rinse thoroughly with water before disposal or sending for recycling.

## SECTION 14. TRANSPORT INFORMATION

- **DOT (US - Ground):**
    - **UN Number:** UN2790
    - **Proper Shipping Name:** Acetic acid solution
    - **Hazard Class:** 8 (Corrosive)
    - **Packing Group:** III
    - **Special Provisions:** Limited Quantity Exception. As per 49 CFR §173.154, this product qualifies for the Limited Quantity exception when presented in inner packagings not exceeding 5.0 L (1.3 gallons).
- **IMDG (Maritime):**
    - **UN Number:** UN2790
    - **Proper Shipping Name:** Acetic acid solution
    - **Hazard Class:** 8 (Corrosive)
    - **Packing Group:** III
    - **Special Provisions:** Limited Quantity. Meets the packaging requirements for simplified maritime transport under this exception.
- **IATA (Air):**

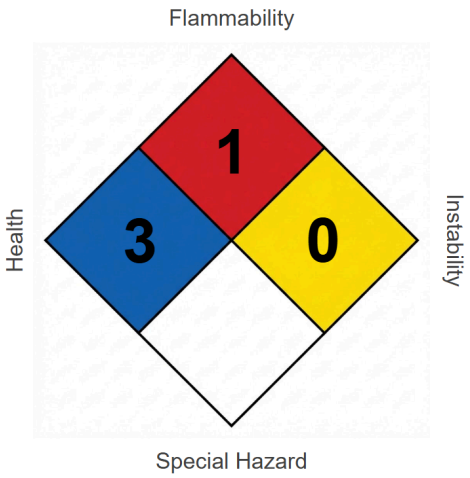
- **UN Number:** UN2790
- **Proper Shipping Name:** Acetic acid solution
- **Hazard Class:** 8 (Corrosive)
- Packing Group: III
- **Note:** Because the 1-gallon container exceeds the 1.0 L limit allowed for "Limited Quantity" in air transport, for this route it must be handled as a fully regulated Corrosive Material.

## SECTION 15. REGULATORY INFORMATION

- **TSCA (USA)**: All ingredients are listed on the national inventory.
- **SARA 302 (EHS):** This product does not contain any Extremely Hazardous Substances.
- **SARA 311/312 (Hazard Categories):** Health hazard (Acute: Skin corrosion, Serious eye damage, and Respiratory tract irritation).
- **SARA 313 (TRI Reporting):** This product does not contain chemical components that exceed the threshold reporting levels established by SARA Title III, Section 313.
- **California Proposition 65**: This product does not contain chemicals known to the State of California to cause cancer or reproductive harm.

## SECTION 16. OTHER INFORMATION

- **NFPA Rating:**




- **HMIS Rating:**


**Key to Ratings**: 0 = Minimal Hazard, 1 = Slight Hazard, 2 = Moderate Hazard, 3 = Serious Hazard, 4 = Severe Hazard. An asterisk (*) next to the Health rating indicates a potential chronic health hazard.
**Personal Protection Equipment (PPE) Codes**: A = Safety Glasses; B = Safety Glasses + Gloves; C = Safety Glasses + Gloves + Apron; H = Splash Goggles + Gloves + Apron + Vapor Respirator.

- **Version: 1.0**

- **Issue Date: 01/15/2026**
- **Disclaimer:** The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification.