

## Safety Data Sheet (SDS)

GHS/OSHA Compliant

## Section I Product and Company Identification

| IDENTITY            | P57029                                 | COPPER                            | ANALYTICAL STANDARD DISSOLVED IN | WATER/NITRIC ACID MATRIX |
|---------------------|----------------------------------------|-----------------------------------|----------------------------------|--------------------------|
| Manufacturer's Name | ABSOLUTE STANDARDS INC                 | Emergency Telephone USA & CANADA  | 1-800-535-5053                   |                          |
| Address             | 60 Trigo Drive<br>Middletown, CT 06457 | Emergency Telephone International | 1-352-323-3500                   |                          |
|                     |                                        | Date Prepared/Revised             | January 1, 2026                  |                          |

## Section II - Hazards Identification

## GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

|          |                                      |              |                                               |
|----------|--------------------------------------|--------------|-----------------------------------------------|
| H272     | May intensify fire; oxidiser.        | H301, H311   | Toxic if swallowed or in contact with skin    |
| H290     | May be corrosive to metals.          | H314         | Causes severe skin burns and eye damage.      |
| P271     | Use in ventilated area               | P280         | Use gloves, eye protection/face shield        |
| P302,332 | If on skin, wash with soap and water | P305,351,338 | If in eyes, remove contacts, rinse with water |



Signal Word: DANGER

## Section III - Composition

| Components:                         | CAS#       | OSHA PEL (TWA) | LD50              | % (optional) |
|-------------------------------------|------------|----------------|-------------------|--------------|
| Nitric acid                         | 7697-37-2  | 2 ppm          | NA                | < 2 %        |
| Water                               | 7732-18-5  | NA             | NA                | >98%         |
| Copper (II) nitrate trihydrate (Cu) | 10031-43-3 | 1 mg/m3        | ori-rat 794 mg/kg | <0.1%        |

## INTENDED USE: REFERENCE MATERIAL

## Section IV. FIRST AID MEASURES

|                         |                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------|
| General advice          | Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.            |
| If inhaled              | If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| In case of skin contact | Wash with soap and water. Consult a physician.                                                              |
| In case of eye contact  | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.                      |
| If swallowed            | Do NOT induce vomiting. Rinse mouth with water. Consult a physician.                                        |

## Section V. FIREFIGHTING MEASURES

|                                  |                                                                          |
|----------------------------------|--------------------------------------------------------------------------|
| Suitable extinguishing media     | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| Protective equipment for fire    | Wear self contained breathing apparatus for fire fighting if necessary.  |
| Hazardous Decomposition products | Nitrogen oxides (NOx), Hydrogen fluoride                                 |

## Section VI. ACCIDENTAL RELEASE MEASURES

|                           |                                                                                                                                                                                     |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions      | Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations. |
| Environmental precautions | Prevent further leakage or spillage if safe to do so. Do not let product enter drains.                                                                                              |
| Clean up                  | Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).                                                             |

## Section VII. HANDLING AND STORAGE

|                               |                                                                                                                                                                                                                                                                              |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Precautions for safe handling | Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.                                                                                                                                                                                                        |
| Storage Conditions            | Use ventilation. Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. |

## Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

|                                     |                  |                      |
|-------------------------------------|------------------|----------------------|
| Nitric acid                         | CAS#: 7697-37-2  | TWA: 500 ppm         |
| Water                               | CAS#: 7732-18-5  | NA                   |
| Copper (II) nitrate trihydrate (Cu) | CAS#: 10031-43-3 | OSHA PEL (TWA) 1 ppm |

Personal protective equipment    Respiratory protection    Handle with gloves. Gloves must be inspected prior to use.    Eye protection.  
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

**Section IX - PHYSICAL/CHEMICAL CHARACTERISTICS**

|                         |                                                        |                                         |       |
|-------------------------|--------------------------------------------------------|-----------------------------------------|-------|
| Boiling Point           | 100°C                                                  | Specific Gravity (H <sub>2</sub> O = 1) | 1     |
| Vapor Pressure (mm Hg)  | NA                                                     | Melting Point                           | 0.0°C |
| Vapor Density (AIR = 1) | NA                                                     | Evaporation rate<br>(Butyl Acetate = 1) | NA    |
| Solubility in Water     | Completely miscible                                    |                                         |       |
| Appearance and Odor     | CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC ACID ODOR. |                                         |       |

**Section X. STABILITY AND REACTIVITY**

|                                                      |                                                                             |
|------------------------------------------------------|-----------------------------------------------------------------------------|
| Chemical stability                                   | Stable under recommended storage conditions.                                |
| Possibility of hazardous reactions                   | Vapours form explosive mixture with air.                                    |
| Conditions to avoid                                  | Heat, flames, sparks, extreme temperature and sunlight.                     |
| Materials to avoid                                   | Bases, Oxidizing agents, Reducing agents, Acetone, Phosphorous oxychloride. |
| Hazardous decomposition products - No data available |                                                                             |

**Section XI. TOXICOLOGICAL INFORMATION**

|                                      |                   |
|--------------------------------------|-------------------|
| OSHA PEL (TWA)                       | 1 ppm             |
| LC50 Inhalation - Rat                | No data available |
| LD50 Oral - Rat                      | 940 mg/kg         |
| Causes skin irritation.              |                   |
| Eye irritation                       |                   |
| Causes respiratory tract irritation. |                   |

**Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.**

|      |                   |
|------|-------------------|
| LC50 | No data available |
| EC50 | No data available |

**Section XIII. DISPOSAL CONSIDERATIONS**

Dispose with normal Laboratory WATER Waste.

**Section XIV. TRANSPORT INFORMATION**

|                                             |                                             |
|---------------------------------------------|---------------------------------------------|
| DOT (US)                                    | IATA                                        |
| UN number: 3264 Class: 8 Packing group: III | UN number: 3264 Class: 8 Packing group: III |
| Proper shipping name: NITRIC ACID < 10%     | Proper shipping name: NITRIC ACID < 10%     |
| Reportable Quantity (RQ): 5000 lbs          |                                             |

**Section XV. REGULATORY INFORMATION**

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant  
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**Section XVI. Misc. INFORMATION**

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Material Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.