SECTION 1 - SUBSTANCE IDENTITY AND COMPANY INFORMATION

Product Name: ATCC Trace Mineral Supplement
ATCC Catalog #: MD-TMS

COMPANY INFORMATION: AMERICAN TYPE CULTURE COLLECTION
PO BOX 1549
MANASSAS, VA 20108

FOR INFORMATION CALL: 800-638-6597 or 703-365-2700
AFTER-HOURS CONTACT: 703-365-2710

CHEMTREC EMERGENCY: 800-424-9300 or 703-527-3887

SECTION 2 - HAZARDS IDENTIFICATION

GHS Symbol: NA
Signal Word: NA

HMIS Rating: Health: 0 Flammability: 0 Reactivity:0
NFPA Rating: Health: 0 Flammability:0 Reactivity:0

Routes of Exposure
Skin Contact: No information available.
Skin Absorption: No information available.
Eye Contact: No information available.
Inhalation: No information available.
Ingestion: May be harmful if swallowed.
Chronic: No Information Found

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

ATCC Trace Mineral Supplement

Formulation
Based on Wolfe’s mineral solution

<table>
<thead>
<tr>
<th>Substance</th>
<th>g/liter</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDTA</td>
<td>0.500</td>
</tr>
<tr>
<td>MgSO4 · 7H2O</td>
<td>3.000</td>
</tr>
<tr>
<td>MnSO4 · H2O</td>
<td>0.500</td>
</tr>
<tr>
<td>NaCl</td>
<td>1.000</td>
</tr>
<tr>
<td>FeSO4 · 7H2O</td>
<td>0.100</td>
</tr>
<tr>
<td>Co(NO3)2 · 6H2O</td>
<td>0.100</td>
</tr>
<tr>
<td>CaCl2 (anhydrous)</td>
<td>0.100</td>
</tr>
<tr>
<td>ZnSO4 · 7H2O</td>
<td>0.100</td>
</tr>
</tbody>
</table>
CuSO4 · 5H2O 0.010
AlK(SO4)2 (anhydrous) 0.010
H3BO3 0.010
Na2MoO4 · 2H2O 0.010
Na2SeO3 (anhydrous) 0.001
Na2WO4 · 2H2O 0.010
NiCl2 · 6H2O 0.020

While this material is not classified as hazardous under OSHA regulations, this MSDS contains valuable information. This MSDS should be retained and available for employees and other users of the product.

SECTION 4 - FIRST AID MEASURES

Ingestion: If person is unconscious seek emergency medical attention; never give anything by mouth to an unconscious person. If the person is conscious wash mouth out with copious amounts of water and call a physician. Do not induce vomiting unless directed to do so by a physician.

Inhalation: If person is unconscious seek emergency medical attention, if person is conscious remove to fresh air and call a physician.

Dermal exposure: Immediately wash skin with copious amounts of water followed by washing with soap and copious amounts of water. Remove all contaminated clothing.

Eye exposures: Flush eyes with copious amounts of water for at least 15 minutes with eyelids separated and call a physician.

Notes to Physician: Treat symptomatically and supportively.

SECTION 5 - FIRE FIGHTING MEASURES

General: Wear Self-Contained breathing apparatus in pressure demand, MSHA/NIOSH approved. During a fire, irritating and toxic gases may be generated by thermal decomposition.

Extinguishing Media: Use Water Spray, Carbon Dioxide, dry chemical powder or appropriate foam.

Autoignition Temperature: N/A

Explosion limits: N/A

Flash Point: N/A

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Use Personal Protective Equipment: Including Chemical Splash Goggles, Chemical Resistant Gloves, and appropriate clothing to prevent skin exposure. In addition, a Respiratory protection program that complies with OSHA.
29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

**Spills:** Avoid creating Aerosols. Use an Inert Material to Absorb the Spill. Clean up spills immediately, observing precautions in the Sections 6 and 8. Provide ventilation.

**SECTION 7 - HANDLING AND STORAGE**

**Handling:** Avoid inhalation, contact with eyes, prolonged or repeated exposure to all of the components. Wash thoroughly after handling. Use with adequate ventilation. Use with Chemical Splash Goggles, Chemical Resistant Gloves, and appropriate clothing to prevent skin exposure. In addition, a Respiratory protection program that complies with OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use. Do not ingest or inhale.

**Storage:** Store in a tightly closed container at 4°C-8°C or below. Protect from light.

**SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Engineering Controls:** The use and storage of this material requires user to maintain and make available appropriate eyewash and safety shower facilities. Use fume hood or other appropriate ventilation method to keep airborne concentrations a low as possible.

**Personal Protective Equipment:** Including Safety Glasses or goggles, Chemical Resistant Gloves, and appropriate clothing to prevent skin exposure. In addition, a Respiratory protection program that complies with OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

**Exposure Limits:** No exposure limits for this material have been established by ACGIH, NIOSH, or OSHA. There are no Vacated OSHA PEL for this material.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

**Physical State:** Clear colorless liquid

No Information is available for pH, Vapor Pressure, Vapor Density, Evaporation Rate, Viscosity, Boiling Point, Freezing/Melting Point, Decomposition Temperature, Solubility, Specific Gravity/Density, or Molecular Weight.
SECTION 10 -  STABILITY AND REACTIVITY

All components are stable if stored as recommended in Section 7.

SECTION 11 -  TOXICOLOGICAL INFORMATION

Note: The toxicological properties of this substance have not been fully investigated.

SECTION 12 -  ECOLOGICAL INFORMATION

No information found.

SECTION 13 -  DISPOSAL CONSIDERATIONS

Hazardous waste generators are required to determine if a discarded chemical is classified as a hazardous waste according to 40 CFR Part 261.3. In addition waste generators must consult about and comply with all state and local regulations to ensure compliance.

SECTION 14 -  TRANSPORT INFORMATION

Land Transport (ADR/RID): Not a dangerous good in sense of this transport regulation.
Inland Water ways transport (ADN): Not a dangerous good in sense of this transport regulation.
Sea Transport (IMDG): Not a dangerous good in sense of this transport regulation.
Air Transport (ICAO-TP / IATA-DGR): Not a dangerous good in sense of this transport regulation
DOT Classification: Not a DOT controlled material (United States)

SECTION 15 -  REGULATORY INFORMATION

This substance is not listed on the TSCA Inventory. It is for research and development use only. This substance is not SARA listed.

US Federal Regulations: SARA 313: This product is not regulated by SARA CAA, Section 112, Hazardous Air Pollutants (HAPs) (40 CFR 61): This product does not contain HAPs.

US State Regulations: California Proposition 65: This product does not contain chemicals listed under Proposition 65.

SECTION 16 -  OTHER INFORMATION

DATE REVISED: JUNE 1, 2016

THE INFORMATION PRESENTED IN THIS DOCUMENT IS BELIEVED TO BE CORRECT BASED UPON DATA AVAILABLE TO ATCC. USERS SHOULD MAKE AN INDEPENDENT DECISION REGARDING THE ACCURACY OF
THIS INFORMATION BASED ON THEIR NEEDS AND DATA AVAILABLE TO THEM. ALL SUBSTANCES AND MIXTURES MAY PRESENT UNKNOWN HAZARDS AND ALL NECESSARY SAFETY PRECAUTIONS SHOULD BE TAKEN. ATCC ASSUMES NO LIABILITY RESULTING FROM USING OR COMING IN CONTACT WITH THIS SUBSTANCE.

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