MATERIAL SAFETY DATA SHEET

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 - COMPOSITION/INFORMATION ON INGREDIENTS

Formulation
Based on Wolfe's mineral solution

	g/liter
EDTA	0.500
$MgSO_4 \cdot 7H_2O$	3.000
$MnSO_4 \cdot H_2O$	0.500
NaCl	1.000
$FeSO_4 \cdot 7H_2O$	0.100
$Co(NO_3)_2 \cdot 6H_2O$	0.100
$CaCl_2$ (anhydrous)	0.100
$ZnSO_4 \cdot 7H_2O$	0.100
$CuSO_4 \cdot 5H_2O$	0.010
$AlK(SO_4)_2$ (anhydrous)	0.010
H_3BO_3	0.010
$Na_2MoO_4 \cdot 2H_2O$	0.010
Na_2SeO_3 (anhydrous)	0.001
$Na_2WO_4 \cdot 2H_2O$	0.010
$NiCl_2 \cdot 6H_2O$	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 3 - HAZARDS IDENTIFICATION

Emergency Overview: Handle With Care- Material has not been fully tested.

POTENTIAL HEALTH EFFECTS
Inhalation: Not determined. Avoid Inhalation.
Ingestions: Not determined. Avoid Ingestion.
Skin: Not determined. Avoid contact with skin.
Eyes: Not determined. Avoid contact with eyes.

Chronic Exposures: Not determined
Target Organs: Not determined

SECTION 4 - FIRST AID MEASURES

Oral Exposure: If any component is swallowed, rinse out mouth with water provided person is conscious. Call a physician.

Dermal Exposure: In case any component is in contact with skin, flush with copious amounts of water for at least 15 minutes. Should irritation occur, call a physician.

Eye Exposure: In case any component is in contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Inhalation: If any component is inhaled, remove to fresh air. Should person have trouble breathing, 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.
Extinguishing Media: Use Water Spray, Carbon Dioxide, dry chemical powder or appropriate foam.

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 and Leaks: Absorb spill with inert material (e.g. Vermiculite, sand, earth) then place in a suitable container. Clean up spills immediately. 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.

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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: Use Chemical Splash Goggles, Chemical Resistant Gloves, and appropriate clothing to prevent skin exposure. Wash hands thoroughly after handling any component. 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.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Clear Colorless Liquid

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 the components 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

Considered non-hazardous for transport according to US DOT, Canadian TDG or IATA.

SECTION 15 - REGULATORY INFORMATION

This substance is for research and development use only.
This substance is not SARA listed.

SECTION 16 - OTHER INFORMATION

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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Revision 2 11/12/2010