

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product identifier**

Product Name Trace Elements B, 1000x
Product Code 25-022-CIR

Other means of identification

Pure substance/mixture Mixture

Recommended use of the chemical and restrictions on use

Recommended Use For Research Use Only. Not Intended for Diagnostic or Therapeutic Use

Details of the supplier of the safety data sheet

Company Name Mediatech Inc., A Corning Subsidiary
9345 Discovery Blvd.
Manassas, VA 20109
USA
+1.703.471.5955

E-mail address ScientificSupport@corning.com

Emergency telephone number

Chemtrec +1-800-424-9300 (USA), +1-703-527-3887 (International; call collect)

2. HAZARDS IDENTIFICATION**Classification**

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Label elements

Signal word None

Hazard statements Not Hazardous

Hazards not otherwise classified (HNOC)

None

3. COMPOSITION/INFORMATION ON INGREDIENTS**Mixtures**

| Chemical Name | CAS No | Weight-% |
|--|------------|----------|
| Sodium meta-silicate nonahydrate | 13517-24-3 | <0.1 |
| Molybdate, hexaammonium, tetrahydrate | 12054-85-2 | <0.001 |
| Ammonium vanadate | 7803-55-6 | <0.001 |
| Manganese sulfate monohydrate | 10034-96-5 | <0.001 |
| Nickel(II) sulfate hexahydrate (1:1:6) | 10101-97-0 | <0.001 |
| Stannous chloride | 7772-99-8 | <0.001 |

The product contains no substances which at their given concentration, are considered to be hazardous to health

4. FIRST AID MEASURES**First aid measures**

Inhalation Remove to fresh air. If not breathing, give artificial respiration.

| | |
|---------------------|--|
| Skin Contact | Wash with plenty of water and soap. |
| Eye contact | Rinse thoroughly with plenty of water, also under the eyelids. |
| Ingestion | Never give anything by mouth to an unconscious person. Clean mouth with water. |

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media No information available.

Specific hazards arising from the chemical

No information available.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required. Avoid breathing dust/fume/gas/mist/vapors/spray

Environmental precautions

See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Prevent further leakage or spillage if safe to do so. Soak up with inert absorbent material.

7. HANDLING AND STORAGE

Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.
Incompatible materials No information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters**Exposure Guidelines**

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|--|--|--|---|
| Nickel(II) sulfate hexahydrate (1:1:6) | TWA: 0.1 mg/m ³ Ni inhalable fraction | TWA: 1 mg/m ³ Ni (vacated) TWA: 0.1 mg/m ³ Ni | IDLH: 10 mg/m ³ Ni TWA: 0.015 mg/m ³ except Nickel carbonyl Ni |
| Stannous chloride | TWA: 2 mg/m ³ Sn except Tin hydride | TWA: 2 mg/m ³ Sn except oxides (vacated) TWA: 2 mg/m ³ Sn except oxides | IDLH: 100 mg/m ³ Sn TWA: 2 mg/m ³ except Tin oxides Sn |

NIOSH IDLH *Immediately Dangerous to Life or Health*

Other Information

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Hand Protection Wear protective nitrile rubber gloves.

Skin and body protection Suitable protective clothing.

Respiratory protection None under normal use conditions.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Wash hands thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

| | | | |
|-----------------------|-----------|-----------------------|--------------------------|
| Physical state | liquid | Odor | No information available |
| Appearance | clear | Odor threshold | No information available |
| Color | colorless | | |

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|--------------------------------------|--------------------------|--------------------------------|
| pH | ~ 6.6 | |
| Melting point/freezing point | No information available | |
| Boiling point / boiling range | No information available | |
| Flash point | No information available | |
| Evaporation rate | No information available | |
| Flammability (solid, gas) | No information available | |
| Flammability Limit in Air | | |
| Upper flammability limit: | No information available | |
| Lower flammability limit | No information available | |
| Vapor pressure | No information available | |
| Vapor density | No information available | |
| Specific Gravity | No information available | |
| Water solubility | No information available | |
| Solubility in other solvents | No information available | |
| Partition coefficient | No information available | |
| Autoignition temperature | No information available | |
| Decomposition temperature | No information available | |
| Kinematic viscosity | No information available | |
| Dynamic viscosity | No information available | |
| Oxidizing properties | No information available | |
| Explosive properties | No information available | |

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under normal conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

None known.

Incompatible materials

No information available.

Hazardous Decomposition Products

None under normal use conditions

11. TOXICOLOGICAL INFORMATION**Acute toxicity****Component Information**

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|--|---|----------------------|--------------------------------------|
| Ammonium vanadate | = 58.1 mg/kg (Rat) = 58100 µg/kg (Rat) | = 2102 mg/kg (Rat) | = 7800 µg/m ³ (Rat) 4 h |
| Nickel(II) sulfate hexahydrate (1:1:6) | = 264 mg/kg (Rat) | - | - |
| Stannous chloride | = 2300 mg/kg (Rat) = 700 mg/kg (Rat) | - | - |

Information on toxicological effects**Symptoms** No information available.**Delayed and immediate effects as well as chronic effects from short and long-term exposure****Skin corrosion/irritation** No information available.**Serious eye damage/eye irritation** No information available.**Sensitization** No information available.**Germ cell mutagenicity** No information available.**Carcinogenicity** This product does not contain any any components at levels greater than or equal to 0.1% that have been identified as probable, possible or confirmed human carcinogens by OSHA, IARC or NTP.**Reproductive toxicity** No information available.**Developmental Toxicity** No information available.**STOT - single exposure** No information available.**STOT - repeated exposure** No information available.**Aspiration hazard** No information available.**12. ECOLOGICAL INFORMATION****Ecotoxicity**

| Chemical Name | Algae/aquatic plants | Fish | Toxicity to microorganisms | Crustacea |
|-------------------|----------------------|---|----------------------------|--|
| Ammonium vanadate | - | 1.5: 144 h Poecilia reticulata mg/L LC50 | - | - |
| Stannous chloride | - | - | - | 55: 48 h Daphnia magna mg/L EC50 Static |

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility in soil

No information available.

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS**Waste treatment methods****Disposal of wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

DOT Not regulated

IATA Not regulated

IMDG Not regulated

15. REGULATORY INFORMATION

International Inventories

| Chemical Name | TSCA | DSL | NDSL | EINECS | ELINCS | ENCS | IECSC | KECL | PICCS | AICS |
|--|------|-----|------|--------|--------|------|-------|------|-------|------|
| Sodium meta-silicate nonahydrate | - | - | - | - | - | - | X | - | X | - |
| Molybdate, hexaammonium, tetrahydrate | - | - | - | - | - | X | X | - | X | X |
| Ammonium vanadate | X | X | - | X | - | X | X | X | X | X |
| Manganese sulfate monohydrate | - | - | - | - | - | X | X | - | X | X |
| Nickel(II) sulfate hexahydrate (1:1:6) | - | - | - | - | - | X | X | - | X | - |
| Stannous chloride | X | X | - | X | - | X | X | X | X | X |

Legend X = Listed, - = Not Listed

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 311/312 Hazard Categories

Acute health hazard No
 Chronic Health Hazard No
 Fire hazard No
 Reactive Hazard No
 Sudden release of pressure hazard No

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

| Chemical Name | California Proposition 65 |
|--|---------------------------|
| Nickel(II) sulfate hexahydrate (1:1:6) (CAS #: 10101-97-0) | Carcinogen |

16. OTHER INFORMATION

Version 1

Revision Date

21-Dec-2016

Revision Note

Not Applicable

Disclaimer

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End of Safety Data Sheet