Section 1 - Product and Company Identification

Product Name: Multi-Element Calibration Standard - 4
Agilent Part Number: 8500-6942
Date Revised: 11/16/04
Date of Original: 07/14/97

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Section 2 - Composition/information on Ingredients
A 100 ml. preparation containing 10 µg/ml each of Boron (B); Germanium (Ge); Molybdenum (Mo); Niobium (Nb); Phosphorus (P); Rhenium (Re); Sulfur (S); Silicon (Si); Tantalum (Ta); Titanium (Ti); Tungsten (W); and Zirconium (Zr) in water with a trace of hydrofluoric acid.
Chemical Families: Ionic metals in water
Chemical Synonyms: NA

Section 3 - Hazards Identification
There are no chemicals in concentrations considered hazardous

Section 4 - First-Aid Measures
Inhalation: NA
Skin Contact: In case of contact wash skin with soap and copious amounts of water.
Eye Contact: Contamination of the eyes should be treated by irrigation with copious amounts of water by separating the eyelids with fingers. If redness or swelling persists, contact physician.
Ingestion: NA

Section 5 - Fire-Fighting Measures
Extinguishing Media: Suitable to surrounding environment.
Special Fire Fighting Procedures: NA
Unusual Fire and Explosion Hazards: None

Section 6 - Accidental Release Measures
Due to the small quantity involved, a leaking ampoule may be placed in a plastic bag containing absorbent and disposed of as non-hazardous waste according to local regulations. Used absorbent should be disposed of in a similar manner. See Section 15. Personal protective equipment should be worn during remediation of accidental releases according to the nature and quantity of the material involved. See Section 8 for a description of recommended personal protective equipment.

Section 7 - Handling and Storage
Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling.
Store in a cool dry place. Proper storage must be determined based on other materials stored and their hazards and potential chemical incompatibility. Store in an acceptable protected and secure storage cabinet or room.

Section 8 - Exposure Controls/Personal Protection
Ventilation: Adequate ventilation is required to protect personnel from exposure to chemical vapors exceeding PEL and to minimize fire hazards. See Section 15 for regulatory standards of exposure. Respiratory: Use NIOSH approved respirator equipment.

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Section 9 - Physical and Chemical Properties

Flash Point (Method Used): None Odor Threshold: NA
Explosion Potential: LEL (NA) / UEL (NA) Octanol/Water Partition Coefficient: ND
Specific Gravity (H2O = 1) >1 pH: 3.5
Melting Point (Degree C): ND
Evaporation Rate (n-butyl acetate = 1) <1
Boiling Point (Degree C): 100
Vapor Pressure (mm Hg at 25°C): ND
Vapor Density (Air = 1) ND
Solubility in Water: Insoluble ( ) / Soluble (100%)
Appearance and Odor: Clear, colorless liquid

Section 10 - Stability and Reactivity

Stability: Stable (x) / Unstable ( )
Conditions to Avoid: Poor ventilation.
Incompatibility (Materials to Avoid): ND
Hazardous Decomposition or Byproducts: NA
Hazardous Polymerization: May Occur ( ) / Will Not Occur (x)

Section 11 - Toxicological Information

Route(s) of Entry: Inhalation? No Skin? No Ingestion? No
Health Hazard Acute/Chronic: NA
Medical Conditions Generally Aggravated by Exposure: NA

Section 12 - Ecological Information

Does not apply.

Section 13 - Disposal Considerations

Non-hazardous waste

Section 14 - Transport Information

DOT Regulations: IATA-DGR Regulations:
Shipping Name: Non-Regulated Shipping Name: Non-Regulated
RID/ADR: NA ADNR: ND

Section 15 - Regulatory Information

SARA Reporting: NA Labeling Requirements: NA

Section 16 - Other Information

Unless otherwise noted, the above information pertains only for the solvent and similar types of components in the sample. When no toxicity data is provided, it is prudent to handle this chemical as hazardous. Furthermore, since individual chemical hypersensitivity cannot be predicted, every chemical should be handled with due respect.

Eyes: Safety glasses are considered minimum protection. Chemical safety goggles or face shield may be necessary depending on quantity of material and conditions of use. Emergency eye wash fountains should be available in the vicinity of any possible exposure. Skin: Chemical-resistant protective gloves and clothing are recommended. The choice of protective gloves or clothing must be based on chemical resistance and other user requirements. Generally BUNA-N offers acceptable chemical resistance. Individuals who are acutely and specifically sensitive to this chemical may require additional protective clothing.
KEY TO ABBREVIATIONS

ACGIH - American Conference of Governmental Industrial Hygienists
ADNR - Regulations concerning the carriage of dangerous goods on the Rhine
CAS - Chemical Abstract Service
DOT - US. Department of Transportation 49 Code of Federal Regulations
IARC - International Agency for Research on Cancer
IATA-DGR - International Air Transport Association- Dangerous Goods Regulation
LEL - Lower Explosion Limit
NA - Not Applicable
ND - No Data
NIOSH - National Institute for Occupational Safety and Health
NTP - National Toxicology Program
OSHA - Occupational Safety and Health Administration
PEL - Permissible Exposure Limit
RID/ADR - Regulations Concerning the International Carriage of Dangerous Goods by Rail/European Agreement Concerning the International Carriage of Dangerous Goods by Road
TLV - Threshold Limit Value
TWA - Time Weighted Average
UEL - Upper Explosion Limit
[ ] - Indicates CAS Number