

# SAFETY DATA SHEET

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## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** TitraVer ® (EDTA) Standard Solution 0.010M (0.020N)

**Catalog Number:** 20500

Bio-Lab, Inc.  
P.O. Box 300002  
Lawrenceville, GA USA 30049  
(800) 859-7946

24 HR. Emergency  
Telephone Numbers:  
(800) 424-9300 CHEMTREC (Transportation)  
(877) 800-5553 Poison Control Center (Medical)

**MSDS Number:** M00348

**Chemical Name:** Not applicable

**CAS Number:** Not applicable

**Additional CAS No. (for hydrated forms):** Not applicable

**Chemical Formula:** Not applicable

**Chemical Family:** Not applicable

**Intended Use:** Standard solution Hardness determination Hardness determination Standard solution

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## 2. HAZARDS IDENTIFICATION

**GHS Classification:**

**Hazard categories:** Not applicable

**GHS Label Elements:**

Not applicable

**Hazard statements:** Not applicable

**Precautionary statements:** Not applicable

**HMIS:**

**Health:** 0

**Flammability:** 0

**Reactivity:** 0

**Protective Equipment:** X - See protective equipment, Section 8.

**NFPA:**

**Health:** 0

**Flammability:** 0

**Reactivity:** 0

**Symbol:** Not applicable

**WHMIS Hazard Classification:** Not applicable

**WHMIS Symbols:** Not applicable

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## 3. COMPOSITION / INFORMATION ON INGREDIENTS

**Hazardous Components according to GHS:**

**Ethylenediaminetetraacetic Acid, Disodium Salt**

**CAS Number:** 139-33-3

**Chemical Formula:** C10H14N2Na-2O82HO

**GHS Classification:** Acute Tox. 5-Orl, H303; Eye Irrit. 2A, H319; Aquatic Acute 2, H401

**Percent Range (Trade Secret):** < 0.5

**Percent Range Units:** weight / weight

**PEL:** 15 mg/m<sup>3</sup> as total dust; 5 mg/m<sup>3</sup> as respirable dust

**TLV:** 10 mg/m<sup>3</sup> as inhalable dust; 3 mg/m<sup>3</sup> as respirable dust

**WHMIS Symbols:** Not applicable

**Formaldehyde**

**CAS Number:** 50-00-0

**Chemical Formula:** CH<sub>2</sub>O

**GHS Classification:** Flam. Liq. 4, H227; Acute Tox. 3 -Orl, H301; Acute Tox. 3 -Derm, H311; Skin Corr. 1B, H314; Skin Sens. 1, H317; Acute Tox. 3 -Inh, H331; Resp. Sens. 1, H334; Muta. 2, H341; Carc. 2, H351; Repr. 2, H361; STOT Single 1, H370; Aquatic Acute 2, H401

**Percent Range (Trade Secret):** < 0.1

**Percent Range Units:** weight / volume

**PEL:** 0.75 ppm

**TLV:** 0.3 ppm

**WHMIS Symbols:** Acute PoisonOther Toxic Effects

**Methyl Alcohol**

**CAS Number:** 67-56-1

**Chemical Formula:** CH<sub>3</sub>OH

**GHS Classification:** Flam. Liq. 2, H225; Acute Tox. 3 -Orl, H301; Acute Tox. 3 -Derm, H311; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Acute Tox. 3 -Inh, H331; Muta. 2, H341; Repr. 2, H361; STOT SE1, H370

**Percent Range (Trade Secret):** < 0.1

**Percent Range Units:** weight / volume

**PEL:** 200 ppm

**TLV:** 200 ppm

**WHMIS Symbols:** Acute PoisonFlammable / CombustibleOther Toxic Effects

**Hazardous Components according to GHS:** No

**Demineralized Water**

**CAS Number:** 7732-18-5

**Chemical Formula:** H<sub>2</sub>O

**GHS Classification:** Not a dangerous substance according to GHS.

**Percent Range (Trade Secret):** > 99.0

**Percent Range Units:** weight / volume

**PEL:** Not established

**TLV:** Not established

**WHMIS Symbols:** Not applicable

**Sodium Chloride**

**CAS Number:** 7647-14-5

**Chemical Formula:** NaCl

**GHS Classification:** Acute Tox. 5-Orl, H303

**Percent Range (Trade Secret):** < 0.2

**Percent Range Units:** weight / weight

**PEL:** 15 mg/m<sup>3</sup> as total dust; 5 mg/m<sup>3</sup> as respirable dust

**TLV:** 10 mg/m<sup>3</sup> as inhalable dust; 3 mg/m<sup>3</sup> as respirable dust

**WHMIS Symbols:** Other Toxic Effects

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## 4. FIRST AID MEASURES

**General Information:** In the event of exposure, show this Material Safety Data Sheet and label (where possible) to a doctor.

**Advice to doctor:** Treat symptomatically.

**Eye Contact:** Immediately flush eyes with water for 15 minutes. Call physician if irritation develops.

**Skin Contact (First Aid):** Remove contaminated clothing. Wash skin with soap and plenty of water. Call physician if irritation develops.

**Inhalation:** Remove to fresh air.

**Ingestion (First Aid):** Give large quantities of water. Never give anything by mouth to an unconscious person. Call physician immediately.

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## 5. FIRE FIGHTING MEASURES

**Flammable Properties:** Material will not burn.

**Fire Fighting Instruction:** As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear.

**Extinguishing Media:** Use media appropriate to surrounding fire conditions

**Extinguishing Media NOT To Be Used:** Not applicable

**Fire / Explosion Hazards:** None reported

**Hazardous Combustion Products:** This material will not burn.

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## 6. ACCIDENTAL RELEASE MEASURES

**Spill Response Notice:**

Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR 1910.120(a)(v)) and per your company's emergency response plan and guidelines/procedures. See Section 13, Special Instructions for disposal assistance.

**Containment Technique:** Absorb spilled liquid with non-reactive sorbent material. Stop spilled material from being released to the environment.

**Clean-up Technique:** If permitted by regulation, Cover spilled material with an alkali, such as soda ash or sodium bicarbonate. Scoop up spilled material into a large beaker and dissolve with water. Adjust to a pH between 6 and 9 with an alkali, such as soda ash or sodium bicarbonate. Flush reacted material to the drain with a large excess of water. Otherwise, Dispose of in accordance with local, state and federal regulations or laws. Decontaminate the area of the spill with a soap solution.

**Evacuation Procedure:** Evacuate as needed to perform spill clean-up. If conditions warrant, increase the size of the evacuation.

**DOT Emergency Response Guide Number:** Not applicable

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## 7. HANDLING AND STORAGE

**Handling:** Wash thoroughly after handling. Maintain general industrial hygiene practices when using this product.

**Storage:** Keep container tightly closed when not in use.

**Flammability Class:** Not applicable

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:** Maintain general industrial hygiene practices when using this product.

**Personal Protective Equipment:**

**Eye Protection:** safety glasses with top and side shields

**Skin Protection:** disposable latex gloves In the EU, the selected gloves must satisfy the specifications of EU Directive 89/686/EEC and standard EN 374 derived from it.

**Inhalation Protection:** adequate ventilation

**Precautionary Measures:** Wash thoroughly after handling.

**TLV:** Not established

**PEL:** Not established

**For Occupational Exposure Limits (OEL) for ingredients, see section 3 - Composition/Information on Ingredients.:**

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Clear, colorless liquid

**Physical State:** Liquid

**Molecular Weight:** Not applicable

**Odor:** None

**Odor Threshold:** Odorless

**pH:** 5.0±0.6

**Metal Corrosivity:**

**Corrosivity Classification:** Not classified as corrosive to metals according to GHS criteria.

**Steel:** Not determined

**Aluminum:** Not determined

**Specific Gravity/ Relative Density (water = 1; air =1):** 0.988

**Viscosity:** Not determined

**Solubility:**

**Water:** Soluble

**Acid:** Soluble

**Other:** Not determined

**Partition Coefficient (n-octanol / water):** Not applicable

**Coefficient of Water / Oil:** Not applicable

**Melting Point:** Not applicable

**Decomposition Temperature:** Not determined

**Boiling Point:** ~100° C (~212° F)

**Vapor Pressure:** Not determined

**Vapor Density (air = 1):** Not determined

**Evaporation Rate (water = 1):** 0.52

**Volatile Organic Compounds Content:** Not applicable

**Flammable Properties:** Material will not burn.

**Flash Point:** Not applicable

**Method:** Not applicable

**Flammability Limits:**

**Lower Explosion Limits:** Not applicable

**Upper Explosion Limits:** Not applicable

**Autoignition Temperature:** Not applicable

**Explosive Properties:**

Not classified according to GHS criteria.

**Oxidizing Properties:**

Not classified according to GHS criteria.

**Reactivity Properties:**

Not classified as self-reactive, pyrophoric, self-heating or emitting flammable gases in contact with water according to GHS criteria.

**Gas under Pressure:**

Not classified according to GHS criteria.

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## 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable when stored under proper conditions.

**Mechanical Impact:** None reported

**Static Discharge:** None reported.

**Reactivity / Incompatibility:** None reported

**Hazardous Decomposition:** No hazardous decomposition products known.

**Conditions to Avoid:** Evaporation

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## 11. TOXICOLOGICAL INFORMATION

**Toxicokinetics, Metabolism and Distribution:** No information available for mixture.

**Toxicologically Synergistic Products:** None reported

**Acute Toxicity:** Based on classification principles, the classification criteria are not met. Acute Toxicity Estimate (ATE) - Calculated from Ingredient Toxicity Data

ATE LD50 > 5000 mg/kg

**Specific Target Organ Toxicity - Single Exposure (STOT-SE):** Based on classification principles, the classification criteria are not met.

**Specific Target Organ Toxicity - Repeat Exposure (STOT-RE):** Based on classification principles, the classification criteria are not met.

**Skin Corrosion/Irritation:** Based on classification principles, the classification criteria are not met.

**Eye Damage:** Based on classification principles, the classification criteria are not met.

**Sensitization:** Based on classification principles, the classification criteria are not met.

**CMR Effects/Properties (carcinogenic, mutagenic or toxic to reproduction):** Contains Listed Carcinogen

Contains < 0.25% Formaldehyde in methanol

This product does NOT contain any NTP listed chemicals.

This product does NOT contain any OSHA listed carcinogens.

**Symptoms/Effects:**

**Ingestion:** No Effects Anticipated

**Inhalation:** No effects anticipated

**Skin Absorption:** No effects anticipated

**Chronic Effects:** None reported

**Medical Conditions Aggravated:** None reported

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## 12. ECOLOGICAL INFORMATION

**Product Ecological Information:** No information available on this product.

**Ingredient Ecological Information:** None reported

CEPA Statement: Methanol, Water: Persistent. Not bioaccumulative. Not inherently toxic to aquatic organisms. CEPA Statement: Formaldehyde: Not persistent. Not bioaccumulative. Inherently toxic to aquatic organisms.

CEPA Statement: Ethylenediaminetetraacetic Acid Disodium Salt: Not persistent. Not bioaccumulative. Not inherently toxic to aquatic organisms.

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## 13. DISPOSAL CONSIDERATIONS

**EPA Waste ID Number:** Not applicable

**Special Instructions (Disposal):** Adjust to a pH between 6 and 9 with an alkali, such as soda ash or sodium bicarbonate. Open cold water tap completely, slowly pour the reacted material to the drain. Allow cold water to run for 5 minutes to completely flush the system.

**Empty Containers:** Rinse three times with an appropriate solvent. Dispose of empty container as normal trash.

**NOTICE (Disposal):** These disposal guidelines are based on federal regulations and may be superseded by more stringent state or local requirements. Please consult your local environmental regulators for more information. In Europe: Chemical and analysis solutions must be disposed of in compliance with the respective national regulations. Product packaging must be disposed of in compliance with the country-specific regulations or must be passed to a packaging return system.

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## 14. TRANSPORT INFORMATION

**D.O.T.:**

**D.O.T. Proper Shipping Name:** Not Currently Regulated

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**Hazard Class:** NA

**Subsidiary Risk:** NA

**ID Number:** NA

**Packing Group:** NA

**T.D.G.:**

**Proper Shipping Name:** Not Currently Regulated

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**Hazard Class:** NA

**Subsidiary Risk:** NA

**UN Number/PIN:** NA

**Packing Group:** NA

**I.C.A.O.:**

**I.C.A.O. Proper Shipping Name:** Not Currently Regulated

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**Hazard Class:** NA

**Subsidiary Risk:** NA

**ID Number:** NA

**Packing Group:** NA

**I.M.O.:**

**Proper Shipping Name:** Not Currently Regulated

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**Hazard Class:** NA

**Subsidiary Risk:** NA

**ID Number:** NA

**Packing Group:** NA

**Additional Information:** There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is NOT in a set or kit, the classification given above applies. If the item IS part of a set or kit, the classification would change to the following: UN3316 Chemical Kit, Class 9, PG II or III. If the item is not regulated, the Chemical Kit classification does not apply.

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## 15. REGULATORY INFORMATION

### **U.S. Federal Regulations:**

**O.S.H.A.:** This product does not meet the criteria for a hazardous substance as defined in the Hazard Communication Standard. (29 CFR 1910.1200)

**E.P.A.:**

**S.A.R.A. Title III Section 311/312 Categorization (40 CFR 370):** Not applicable

**S.A.R.A. Title III Section 313 (40 CFR 372):** This product does NOT contain any chemical subject to the reporting requirements of Section 313 of Title III of SARA.

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**302 (EHS) TPQ (40 CFR 355):** Not applicable

**304 CERCLA RQ (40 CFR 302.4):** Not applicable

**304 EHS RQ (40 CFR 355):** Not applicable

**Clean Water Act (40 CFR 116.4):** Not applicable

**RCRA:** Not applicable

### **State Regulations:**

**California Prop. 65:** Not applicable

**Identification of Prop. 65 Ingredient(s):** Not applicable

**California Perchlorate Rule CCR Title 22 Chap 33:** Not applicable

**Trade Secret Registry:** Not applicable

### **National Inventories:**

**U.S. Inventory Status:** All ingredients in this product are listed on the TSCA 8(b) Inventory (40 CFR 710).

**CAS Number:** Not applicable

**Canadian Inventory Status:** All ingredients of this product are DSL Listed.

**EEC Inventory Status:** All ingredients used to make this product are listed on EINECS / ELINCS.

**Australian Inventory (AICS) Status:** All ingredients are listed.

**New Zealand Inventory (NZIoC) Status:** All components either listed or exempt.

**Korean Inventory (KECI) Status:** All components of this product are either listed, listed as the anhydrous compound or exempt.

**Japan (ENCS) Inventory Status:** All components either listed or exempt.

**China (PRC) Inventory (MEP) Status:** All components either listed or exempt.

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## 16. OTHER INFORMATION

**References:** TLV's Threshold Limit Values and Biological Exposure Indices for 1992-1993. American Conference of Governmental Industrial Hygienists, 1992. Air Contaminants, Federal Register, Vol. 54, No. 12. Thursday, January 19, 1989. pp. 2332-2983. In-house information. Technical Judgment. CCINFO RTECS. Canadian Centre for Occupational Health and Safety. Hamilton, Ontario Canada: 30 June 1993. Vendor Information.

**Complete Text of H phrases referred to in Section 3:** H225 Highly flammable liquid and vapour. H227 Combustible liquid. H301 Toxic if swallowed. Not applicable H311 Toxic in contact with skin. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H316 Causes mild skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H331 Toxic if inhaled. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H341 Suspected of causing genetic defects. H351 Suspected of causing cancer. H361fd

Suspected of damaging fertility. Suspected of damaging the unborn child. H370 Causes damage to organs. H401 Toxic to aquatic life. H411 Toxic to aquatic life with long lasting effects.

**Revision Summary:** Substantial revision to comply with EU Reg 1272/2008, Reg 1907/2006 and UN GHS (ST/SG/AC.10/36/Add.3).

**Date of MSDS Preparation:**

**Day:** 17

**Month:** July

**Year:** 2014

**MSDS Prepared:** MSDS prepared by Product Compliance Department extension 3350

**CCOHS Evaluation Note:** It is offered under exemption from WHMIS labeling as specified in the Controlled Products Regulation (CPR) Section 17. It is offered under the interim policy that was established by Health Canada permitting use of GHS-formatted safety data sheets in Canada prior to revision of CPR to GHS. This product has been classified and labeled in accordance with the requirements of GHS (ST/SG/AC.10/36/Add.3). This SDS has been prepared in accordance with the requirements of GHS (ST/SG/AC.10/36/Add.3).

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**Legend:**

NA - Not Applicable	w/w - weight/weight
ND - Not Determined	w/v - weight/volume
NV - Not Available	v/v - volume/volume

**USER RESPONSIBILITY:** Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

**THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.**

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