**SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

**UNNO: 09192**

**MSDS Name:** FL-70 Detergent Biodegradable

**Catalog Numbers:** 572114, SIPO 1, SIPO 4, SIPO 15, SIPO 15

**Synonyms:** None.

**Company Identification:** Fisher Scientific

**1 Reagent Lane**

**0716-9506**

**PO Box:** 87

**FAIRLAWN, NJ 07410**

**For emergency or complaints, call:** 1-800-374-7552

**For assistance, call:** 800-321-1510

**For International: CHERROM Scientific**

**For technical assistance, call:** 703-527-3887

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**SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS**

**CAS Number:** 940-22-8

**Chemical Name:** Tetrasodium ethylene diamine tetraacetate

**Chemical Structure:** ![Chemical Structure Image]

**Molecular Weight:** 276.1

**Chemical Formula:** C_{10}H_{16}N_{4}O_{8}

**Chemical Abstracts Registry Number:** None listed.

**Risk Phrases:** None listed.

**Hazard Symbols:** None listed.

**Appearance:** Yellow liquid.

**Odor:** Unspecified.

**Classification:** May cause respiratory tract irritation. May cause skin irritation. May cause eye irritation. May cause digestive tract irritation.

**Target Organ:** None known.

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**SECTION 3 - HAZARD IDENTIFICATION**

**EMERGENCY OVERVIEW**

**Danger:** May cause respiratory tract irritation. May cause skin irritation. May cause eye irritation. May cause digestive tract irritation.

**Target Organ:** None known.

**Potential Health Effects**

**Eye:** May cause eye irritation.

**Skin:** May cause skin irritation. May cause skin irritation. May cause skin irritation. May cause skin irritation. May cause skin irritation.

**Ingestion:** May cause gastrointestinal irritation with nausea, vomiting and diarrhea.

**Inhalation:** May cause respiratory tract irritation.

**Inhalation:** May cause respiratory tract irritation.

**Concentration:** May cause dermatitis.

**SECTION 4 - FIRST AID MEASURES**

**Eye:** Flush eyes with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if necessary.

**Skin:** Wash contaminated skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if necessary.

**Ingestion:** Do not induce vomiting. If victim is conscious and alert, give 2-4 cups of milk or water. Get medical aid if necessary.

**Inhalation:** Remove from exposure to fresh air immediately. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

**Notes to Physician:** Treat symptomatically and

**SECTION 5 - FIRE FIGHTING MEASURES**

**General Information:** As in any fire, wear a self-contained breathing apparatus in a smoke-free area.

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**SECTION 6 - ACCIDENTAL RELEASE MEASURES**

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Absorb spill with inert material (e.g., vermiculite, sand or earth), then place in suitable container. Avoid runoff into sewers and ditches which lead to waterways. Clean up spills immediately observing precautions in the Protective Equipment section. Provide ventilation.

**SECTION 7 - HANDLING AND STORAGE**

**Handling:** Use with adequate ventilation. Avoid contact with skin and eyes.

**Storage:** In cool, dry, well-ventilated area. Keep compatible substances separate. Store in a cool, dry, well-ventilated place away from incompatible substances.

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

**Engineering Controls:** Use appropriate engineering controls when handling or utilizing this material, such as a ventilation facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

**OSHA Vacated PELs:**

**Tetrasodium ethylene diamine tetraacetate:**

- **ACGIH:** Listed
- **NIOSH:** None listed
- **OSHA - Final PELs:** None listed

**Tritanolamine:**

- **ACGIH:** 5 mg/m³
- **NIOSH:** None listed
- **OSHA - Final PELs:** None listed

**Oleic acid:**

- **ACGIH:** None listed
- **NIOSH:** None listed
- **OSHA - Final PELs:** None listed

**Sodium carbonate:**

- **ACGIH:** None listed
- **NIOSH:** None listed
- **OSHA - Final PELs:** None listed

**Water:**

- **ACGIH:** None listed
- **NIOSH:** None listed
- **OSHA - Final PELs:** None listed

**Polyethylene glycol:**

- **ACGIH:** None listed
- **NIOSH:** None listed
- **OSHA - Final PELs:** None listed

**Tergitol (R) Nonionic Surfactant 15-S-9:**

- **ACGIH:** None listed
- **NIOSH:** None listed
- **OSHA - Final PELs:** None listed

**Personal Protective Equipment**

**Eyes:** Wear appropriate protective eyeglasses or chemical splash goggles.
safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Clothing: Wear appropriate gloves to prevent skin exposure.
Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

*** SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES ***

- Physical State: Liquid
- Color: Yellow
- Odor: Slightly alkaline
- Vapor Pressure: Not available
- Evaporation Rate: 1.0 (ether = 1)
- Viscosity: Not available
- Density: > 100 deg C
- Dewpoint/Melting Point: > 0 deg C
- Decomposition Temperature: Not available
- Solubility in water: Completely soluble in water
- Specific Gravity/Density: 1.04
- Molecular Formula: Mixture
- Molecular Weight: 0

*** SECTION 10 - STABILITY AND REACTIVITY ***

- Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.
- Conditions to Avoid: Incompatible materials, excess heat.
- Incompatibilities with Other Materials: Oleic acid is incompatible with aluminum and parachloric acid. Sodium carbonate is incompatible with aluminum, fluorine, phosphorus, peroxide, and sulfuric acid.
- Hazardous Decomposition Products: Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.
- Hazardous Polymerization: Has not been reported.

*** SECTION 11 - TOXICOLOGICAL INFORMATION ***

RTCEC:
CAS#: 64-02-8; 1027-53-7
PBTS:
CAS#: 64-02-8; 1027-53-7

*** SECTION 12 - ECOLOGICAL INFORMATION ***

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.1. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.
RCRA U-Series: None listed.

*** SECTION 14 - TRANSPORT INFORMATION ***

- US DOT: No information available
- Canadian TDG: No information available

*** SECTION 15 - REGULATORY INFORMATION ***

US FEDERAL
TSCA:
- CAS#: 64-02-8 is listed on the TSCA inventory.
- CAS#: 122-80-1 is listed on the TSCA inventory.
- CAS#: 497-19-8 is listed on the TSCA inventory.
- CAS#: 7732-18-5 is listed on the TSCA inventory.
- CAS#: 25322-68-3 is listed on the TSCA inventory.
- CAS#: 68131-40-8 is listed on the TSCA inventory.

- CAS#: 68131-40-8: Effective Date: 4/13/89; Sunset Date: 12/19/95

Chemical Use Rules:
- None of the chemicals in this product are under a Chemical Test Rule.
- Section 13A
- None of the chemicals are listed under TSCA Section 12.
- None of the chemicals in this material have a SNUR under TSCA.

- SARA:
  - CERCLA Hazardous Substances and corresponding RCRA:
  - None of the hazardous substances in this material have an RCRA.
  - SARA Section 302 Extremely Hazardous Substances:
  - None of the chemicals in this product have a PQR.
  - CAS Codes:
    - CAS#: 64-02-8: acute.
    - CAS#: 122-80-1: acute, chronic.
    - CAS#: 497-19-8: acute, chronic.
    - CAS#: 7732-18-5: acute, chronic.
    - CAS#: 25322-68-3: acute, chronic.
    - CAS#: 68131-40-8: acute, chronic.

- Clean Air Act:
  - This material does not contain any hazardous air pollutants.
  - This material does not contain any Class 1 Ozone Depleters.
  - This material does not contain any Class 2 Ozone Depleters.

- Clean Water Act:
  - None of the chemicals in this product are listed as Hazardous Substances under the CWA.
  - None of the chemicals in this product are listed as Priority Pollutants under the CWA.
  - None of the chemicals in this product are listed as Toxic Pollutants.
  - None of the chemicals in this product are considered highly hazardous by OSHA.

OSHA:
- None of the chemicals in this product are considered highly hazardous by OSHA.

STATE:
- Tetraethylene glycol 400 is not present on state lists from CA, PA, MA, ME, NH, CT or RI.
- Tetraethylene glycol is not present on state lists from FL, IN, OH, WI, or IL.
- Volsol is not found on the following state lists: Florida, Pennsylvania, Minnesota, Massachusetts.

Registry Number: 509-09-8

CAS Number: 88-35-0

EC No.: 200-344-7

HS Code: 2904.99.90
Oleic acid can be found on the following state right to know lists:
Pennsylvania.
Sodium carbonate is not present on state lists from CA, PA, MN, MA, FL, or WI.
Water is not present on state lists from CA, PA, MN, MA, FL, or WI.
Polyethylene glycol 400 can be found on the following state right to know lists: Minnesota.
Tergitol X-100 is not present on state lists from CA, PA, MN, MA, FL, or WI.
California No Significant Risk Level:
None of the chemicals in this product are listed.

European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols: Not available.
Risk Phrases:
Safety Phrases:
WGK (Water Danger/Protection)
CAS# 64-02-8: 2
CAS# 103-71-6: 1
CAS# 112-86-1: 1
CAS# 497-19-8: 1
CAS# 7712-18-5: No information available.
CAS# 25122-68-3: 1
CAS# 68131-40-8

United Kingdom Occupational Exposure Limits

United Kingdom Maximum Exposure Limits
Canada
CAS# 64-02-8 is listed on Canada's DSL List.
CAS# 103-71-6 is listed on Canada's DSL List.
CAS# 112-86-1 is listed on Canada's DSL List.
CAS# 497-19-8 is listed on Canada's DSL List.
CAS# 7712-18-5 is listed on Canada's DSL List.
CAS# 25122-68-3 is listed on Canada's DSL List.
CAS# 68131-40-8 is listed on Canada's DSL List.
This product has a WHMIS classification of D2B.
CAS# 64-02-8 is not listed on Canada's Ingredient Disclosure List.
CAS# 103-71-6 is listed on Canada's Ingredient Disclosure List.
CAS# 112-86-1 is listed on Canada's Ingredient Disclosure List.
CAS# 497-19-8 is listed on Canada's Ingredient Disclosure List.
CAS# 7712-18-5 is not listed on Canada's Ingredient Disclosure List.
CAS# 25122-68-3 is not listed on Canada's Ingredient Disclosure List.
CAS# 68131-40-8 is not listed on Canada's Ingredient Disclosure List.
Exposure Limits
CAS# 103-71-6: OEL-SWEDEN/TWA 5 mg/m³; STEL 10 mg/m³

**** SECTION 16 - ADDITIONAL INFORMATION ****

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall we be liable for any claims, losses, or damages of any kind or party or for lost profits or any special, indirect, incidental, or consequential damages, however arising, even if the company has been advised of