Fisher Scientific

Material Safety Data Sheet

FL-70 Detergent, Biodegradable

MSDS# 06352

Section 1 - Chemical Product and Company Identification

MSDS Name:	FL-70 Detergent, Biodegradable
Catalog Numbers:	NC9149545, S70114, SF105-1, SF105-4
Synonyms:	Concentrated cleaning compound.
Company Identification:	Fisher Scientific One Reagent Lane Fair Lawn, NJ 07410
For information in the US, call:	201-796-7100
Emergency Number US:	201-796-7100
CHEMTREC Phone Number, US:	800-424-9300

Section 2 - Composition, Information on Ingredients

Risk Phrases:

CAS#:	64-02-8
Chemical Name:	Tetrasodium ethylenediaminetetraacetate
%:	1.4
EINECS#:	200-573-9
Hazard Symbols:	

Risk Phrases:

CAS#:	143-19-1
Chemical Name:	Sodium oleate
%:	0.5
EINECS#:	205-591-0
Hazard Symbols:	

Risk Phrases:

CAS#:	144-55-8
Chemical Name:	Sodium bicarbonate
%:	0.1
EINECS#:	205-633-8
Hazard Symbols:	

Risk Phrases:

CAS#:	497-19-8
Chemical Name:	Sodium carbonate
%:	2.7
EINECS#:	207-838-8
Hazard Symbols:	

Risk Phrases:

CAS#:	2717-15-9
Chemical Name:	Triethanolamine oleate
%:	3.8
EINECS#:	220-311-7
Hazard Symbols:	

Risk Phrases:

CAS#:	7732-18-5
Chemical Name:	Water
%:	88.8
EINECS#:	231-791-2
Hazard Symbols:	

Risk Phrases:

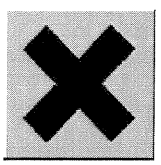
CAS#:	25322-68-3
Chemical Name:	Polyethylene glycol
%:	0.9
EINECS#:	unlisted
Hazard Symbols:	

Risk Phrases:

CAS#:	84133-50-6
Chemical Name:	Alcohols, C12-14-secondary, ethoxylated
%:	1.8
EINECS#:	unlisted
Hazard Symbols:	

Text for R-phrases: see Section 16

Hazard Symbols: XI



Risk Phrases: 36

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Warning! Causes eye irritation. May cause skin and respiratory tract irritation. Do not freeze. Target Organs: Eyes.

Potential Health Effects

Eye:	Causes eye irritation.
Skin:	May cause skin irritation. Prolonged and/or repeated contact may cause irritation and/or dermatitis. In studies with rabbits, sustained occluded skin contact with the undiluted secondary alcohol ethoxylate surfactant can cause inflammatory changes in the lung. Skin contact may cause an allergic skin reaction (sensitization) in a small proportion of individuals.
Ingestion:	Causes gastrointestinal irritation with nausea, vomiting and diarrhea. Possible aspiration hazard.

Inhalation: Inhalation of a mist of this material may cause respiratory tract irritation.

Chronic: Prolonged or repeated skin contact may cause dermatitis.

Section 4 - First Aid Measures

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.

Skin: In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.

Ingestion: Potential for aspiration if swallowed. Get medical aid immediately. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If vomiting occurs naturally, have victim lean forward.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool.

Extinguishing Media: Use extinguishing media most appropriate for the surrounding fire.

Autoignition Temperature: Not applicable.

Flash Point: Not available

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

NFPA Rating: health: 2; flammability: 1; instability: 0;

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. Forms smooth, slippery surfaces on floors, posing an accident risk. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid breathing spray or mist.

Storage: Store in a cool, dry, well-ventilated area away from incompatible substances. Keep containers tightly closed. Protect from freezing.

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Tetrasodium ethylenediaminetetraacetate	none listed	none listed	none listed
Sodium oleate	none listed	none listed	none listed
Sodium bicarbonate	none listed	none listed	none listed
Sodium carbonate	none listed	none listed	none listed
Triethanolamine oleate	none listed	none listed	none listed

Water	none listed	none listed	none listed
Polyethylene glycol	none listed	none listed	none listed
Alcohols, C12-14-secondary, ethoxylated	none listed	none listed	none listed

OSHA Vacated PELs: Tetrasodium ethylenediaminetetraacetate: None listed Sodium oleate: None listed Sodium bicarbonate: None listed Sodium carbonate: None listed Triethanolamine oleate: None listed Water: None listed Polyethylene glycol: None listed Alcohols, C12-14-secondary, ethoxylated: None listed

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Personal Protective Equipment

Eyes: Wear chemical splash goggles.

Skin: Wear appropriate gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Color: yellow

Odor: none reported

pH: alkaline

Vapor Pressure: Not available

Vapor Density: >1.0

Evaporation Rate: >1 (ether=1)

Viscosity: Not available

Boiling Point: > 100 deg C (> 212.00°F)

Freezing/Melting Point: 0 deg C (32.00°F)

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: Extreme temperatures.

Incompatibilities with Other Materials: Strong oxidizing agents.

Hazardous Decomposition Products: Nitrogen oxides, carbon monoxide, carbon dioxide.

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

CAS# 64-02-8: AH5075000
CAS# 143-19-1: RK1200000
CAS# 144-55-8: VZ0950000

RTECS#:

CAS# 497-19-8: VZ4050000
CAS# 2717-15-9: RK0950000
CAS# 7732-18-5: ZC0110000
CAS# 25322-68-3: TQ3500000 TQ3520000 TQ3560000 TQ3580000 TQ3600000 TQ3610000 TQ3620000 TQ3630000 TQ3650000 TQ3675000 TQ3700000 TQ3800000 TQ3850000 TQ4025000 TQ4026000 TQ4027000 TQ4028000 TQ4030000 TQ4040000 TQ4041000 TQ4050000 TQ4070000 TQ4100000 TQ4105000 TQ4110000 TQ4950000 TQ5090000 TR1579850 ZD2465300
CAS# 84133-50-6: None listed

LD50/LC50:

RTECS:
CAS# 64-02-8: Draize test, rabbit, eye: 1900 ug;
Draize test, rabbit, eye: 100 mg/24H Moderate;
Draize test, rabbit, skin: 500 mg/24H Moderate;
.
RTECS:
CAS# 143-19-1:.
RTECS:
CAS# 144-55-8: Draize test, rabbit, eye: 100 mg/30S Mild;
Oral, mouse: LD50 = 3360 mg/kg;
Oral, rat: LD50 = 4220 mg/kg;
.
RTECS:
CAS# 497-19-8: Draize test, rabbit, eye: 100 mg/24H Moderate;
Draize test, rabbit, eye: 50 mg Severe;
Draize test, rabbit, skin: 500 mg/24H Mild;
Inhalation, mouse: LC50 = 1200 mg/m3/2H;
Inhalation, rat: LC50 = 2300 mg/m3/2H;
Oral, mouse: LD50 = 6600 mg/kg;
Oral, mouse: LD50 = 6600 mg/kg;
Oral, rat: LD50 = 4090 mg/kg;
.
RTECS:
CAS# 2717-15-9:.
RTECS:
CAS# 7732-18-5: Oral, rat: LD50 = >90 mL/kg;
.
RTECS:
CAS# 25322-68-3: Draize test, rabbit, eye: 500 mg/24H Mild;
Draize test, rabbit, eye: 100 uL Mild;
Draize test, rabbit, eye: 500 mg Mild;
Draize test, rabbit, eye: 500 mg Mild;
Draize test, rabbit, eye: 500 mg Mild;
Draize test, rabbit, eye: 500 mg Mild;
Draize test, rabbit, eye: 500 mg/24H Mild;
Draize test, rabbit, eye: 500 mg/24H Mild;
Draize test, rabbit, eye: 500 mg Mild;
Draize test, rabbit, eye: 500 mg/24H Mild;
Draize test, rabbit, skin: 500 mg/24H Mild;
Draize test, rabbit, skin: 500 mg/24H Mild;
Draize test, rabbit, skin: 500 mg Mild;
Oral, mouse: LD50 = 34 gm/kg;
Oral, mouse: LD50 = 31 gm/kg;
Oral, mouse: LD50 = 28915 mg/kg;
Oral, mouse: LD50 = 36 gm/kg;
Oral, rabbit: LD50 = 17300 mg/kg;
Oral, rabbit: LD50 = 76 gm/kg;
Oral, rabbit: LD50 = 14 gm/kg;
Oral, rabbit: LD50 = 17300 mg/kg;
Oral, rabbit: LD50 = 26800 mg/kg;

Oral, rabbit: LD50 = 19 gm/kg;
Oral, rabbit: LD50 = 28900 mg/kg;
Oral, rabbit: LD50 = 76 gm/kg;
Oral, rat: LD50 = 28 gm/kg;
Oral, rat: LD50 = 31640 mg/kg;
Oral, rat: LD50 = 27500 mg/kg;
Oral, rat: LD50 = 22 gm/kg;
Oral, rat: LD50 = 30200 mg/kg;
Oral, rat: LD50 = 600 mg/kg;
Oral, rat: LD50 = 30 gm/kg;
Oral, rat: LD50 = 32 gm/kg;
Oral, rat: LD50 = 1054 RTECS:
CAS# 84133-50-6:.

Carcinogenicity:
Tetrasodium ethylenediaminetetraacetate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Sodium oleate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Sodium bicarbonate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Sodium carbonate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Triethanolamine oleate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Water - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Polyethylene glycol - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Alcohols, C12-14-secondary, ethoxylated - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Other: No information available.

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT
Shipping Name: Not regulated as a hazardous material
Hazard Class:
UN Number:
Packing Group:
Canada TDG
Shipping Name: Not available
Hazard Class:
UN Number:
Packing Group:

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XI

Risk Phrases:

R 36 Irritating to eyes.

Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

WGK (Water Danger/Protection)

CAS# 64-02-8: 2

CAS# 143-19-1: 2

CAS# 144-55-8: 0

CAS# 497-19-8: 1

CAS# 2717-15-9: Not available

CAS# 7732-18-5: Not available

CAS# 25322-68-3: 1

CAS# 84133-50-6: 2

Canada

CAS# 64-02-8 is listed on Canada's DSL List

CAS# 143-19-1 is listed on Canada's DSL List

CAS# 144-55-8 is listed on Canada's DSL List

CAS# 497-19-8 is listed on Canada's DSL List

CAS# 2717-15-9 is listed on Canada's DSL List

CAS# 7732-18-5 is listed on Canada's DSL List

CAS# 25322-68-3 is listed on Canada's DSL List

CAS# 84133-50-6 is listed on Canada's DSL List

Canadian WHMIS Classifications: D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 64-02-8 is not listed on Canada's Ingredient Disclosure List.

CAS# 143-19-1 is not listed on Canada's Ingredient Disclosure List.

CAS# 144-55-8 is not listed on Canada's Ingredient Disclosure List.

CAS# 497-19-8 is listed on Canada's Ingredient Disclosure List

CAS# 2717-15-9 is not listed on Canada's Ingredient Disclosure List.

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.

CAS# 25322-68-3 is not listed on Canada's Ingredient Disclosure List.

CAS# 84133-50-6 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

CAS# 64-02-8 is listed on the TSCA Inventory.

CAS# 143-19-1 is listed on the TSCA Inventory.

CAS# 144-55-8 is listed on the TSCA Inventory.

CAS# 497-19-8 is listed on the TSCA Inventory.

CAS# 2717-15-9 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# 84133-50-6 is listed on the TSCA Inventory.

REVIEWED

DATE: July 23/2012

C Rutherford

Section 16 - Other Information

MSDS Creation Date: 6/25/1999

Revision #7 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantibility 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 event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.