

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

MSDS Name: Phenolphthalein Solution 1%

Catalog Numbers:

S71429, S71976, S76970, NC9655542, SP62 1, SP62 500, SP621, SP62500, XX66551LI

Synonyms:

Phenolphthalein Indicator Solution

Company Identification: Fisher Scientific

1 Reagent Lane

Fairlawn, NJ 07410

For information, call: 201-796-7100

Emergency Number: 201-796-7100

For CHEMTREC assistance, call: 800-424-9300

For International CHEMTREC assistance, call: 703-527-3887

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

CAS#	Chemical Name	%	EINECS#
67-63-0	Isopropyl alcohol	99.0	200-661-7
77-09-8	Phenolphthalein	1.0	201-004-7

Hazard Symbols: F

Risk Phrases: 11

**** SECTION 3 - HAZARDS IDENTIFICATION ****

EMERGENCY OVERVIEW

Appearance: colourless. Flash Point: 12 deg C.

Warning! Flammable liquid. Causes respiratory tract irritation. May cause skin irritation. Causes eye irritation. May cause allergic skin reaction. May cause digestive tract irritation. May cause central nervous system depression. May cause kidney damage. May form explosive peroxides. May cause reproductive and fetal effects. May cause cancer based on animal studies.

Target Organs: Kidneys, central nervous system.

Potential Health Effects

Eye:

Produces irritation, characterized by a burning sensation, redness, tearing, inflammation, and possible corneal injury.

Skin:

May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. Prolonged and/or repeated contact may cause defatting of the skin and dermatitis. May cause irritation with pain and stinging, especially if the skin is abraded.

Ingestion:

May cause gastrointestinal irritation with nausea, vomiting and

diarrhea. May cause kidney damage. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure.

Inhalation:

Inhalation of high concentrations may cause central nervous system effects characterized by headache, dizziness, unconsciousness and coma. Inhalation of vapor may cause respiratory tract irritation.

Chronic:

Possible cancer hazard based on tests with laboratory animals. Prolonged or repeated skin contact may cause defatting and dermatitis. May cause kidney injury. May cause allergic skin reaction in some individuals.

****** SECTION 4 - FIRST AID MEASURES ******

Eyes:

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin:

Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

Ingestion:

Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

Inhalation:

Get medical aid immediately. Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. DO NOT use mouth-to-mouth respiration.

Notes to Physician:

Treat symptomatically and supportively.

****** 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. Vapors can travel to a source of ignition and flash back. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire. This chemical poses an explosion hazard. May form explosive peroxides. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas.

Extinguishing Media:

For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. Water may be ineffective. For large fires,

use water spray, fog or alcohol-resistant foam. Do NOT use straight streams of water. Cool containers with flooding quantities of water until well after fire is out.

**** 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., dry sand or earth), then place into a chemical waste container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Scoop up with a nonsparking tool, then place into a suitable container for disposal. Remove all sources of ignition. Provide ventilation.

**** SECTION 7 - HANDLING and STORAGE ****

Handling:

Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Use spark-proof tools and explosion proof equipment. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Avoid ingestion and inhalation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage:

Keep away from heat, sparks, and flame. Keep away from sources of ignition. Keep container closed when not in use. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area.

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

Engineering Controls:

Good general ventilation should be sufficient to control airborne levels. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Isopropyl alcohol	(400) ppm; (500)	400 ppm TWA; 980	400 ppm TWA; 980
	ppm STEL	mg/m3 TWA 2000	mg/m3 TWA
	ppm IDLH (10		
	percent lower		
	explosive limit)		

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Phenolphthalein	none listed	none listed	none listed
+-----	+-----	+-----	+-----

OSHA Vacated PELs:

Isopropyl alcohol:

400 ppm TWA; 980 mg/m³ TWA

Phenolphthalein:

No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes:

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

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 29CFR 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

Appearance: colourless

Odor: alcohol-like

pH: Not available.

Vapor Pressure: 40 mm Hg

Vapor Density: 2.1

Evaporation Rate: 2.88 (Butyl Acetate=1)

Viscosity: Not available.

Boiling Point: 83 deg C

Freezing/Melting Point: -89 deg C

Autoignition Temperature: 750 deg F (398.89 deg C)

Flash Point: 12 deg C (53.60 deg F)

NFPA Rating: Not published.

Explosion Limits, Lower: 2.0

Upper: 12.7

Decomposition Temperature: Not available.

Solubility: Soluble in water.

Specific Gravity/Density: 0.7855

Molecular Formula: Mixture

Molecular Weight: 0

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

Chemical Stability:

Stable. This material may be sensitive to peroxide formation.

Conditions to Avoid:

This material may be sensitive to peroxide formation., incompatible materials, ignition sources, excess heat.

Incompatibilities with Other Materials:

Oxidizing agents, Isopropanol is susceptible to autoxidation and therefore should be classified as peroxidizable..

Hazardous Decomposition Products:

Carbon monoxide, carbon dioxide, acrid smoke and fumes.

Hazardous Polymerization: Will not occur.

**** SECTION 11 - TOXICOLOGICAL INFORMATION ****

RTECS#:

CAS# 67-63-0: NT8050000

CAS# 77-09-8: SM8380000

LD50/LC50:

CAS# 67-63-0: Oral, mouse: LD50 = 3600 mg/kg; Oral, rabbit: LD50 = 6410 mg/kg; Oral, rat: LD50 = 5045 mg/kg; Skin, rabbit: LD50 = 12800 mg/kg.

CAS# 77-09-8.

Carcinogenicity:

Isopropyl alcohol -

IARC: Group 3 carcinogen

Phenolphthalein -

California: carcinogen; initial date 5/15/98

Epidemiology:

The NTP reported that there was clear evidence of carcinogenic activity in male rats based on the markedly increased incidences of benign pheochromocytoma of the adrenal medulla and others. There was clear evidence in mice based on the increased incidences of histiocytic sarcoma and malignant lymphoma of thymic origin. There was also clear evidence in female mice based on the increased incidences of histiocytic sarcoma, malignant lymphomas, and benign sex-cord stromal tumors of the ovary.

Teratogenicity:

No information available.

Reproductive Effects:

No information available.

Neurotoxicity:

No information available.

Mutagenicity:

Significant increases in chromosomal aberrations were observed after treatment of cultured Chinese hamster ovary cells with phenolphthalein in the presence of S9. Frequencies of micronucleated erythrocytes were noted in male and female feeding studies.

Other Studies:

No data available.

**** SECTION 12 - ECOLOGICAL INFORMATION ****

Ecotoxicity:

Cas# 67-63-0: LC50 (96Hr.) Fathead Minnow = 94900-10400 mg/L;
Flow-through condition LC50 (96 Hr.) Fathead Minnow = 61200-65500
mg/L;Flow-through condition.

**** SECTION 13 - DISPOSAL CONSIDERATIONS ****

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 Part 173.101. 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

Shipping Name: ***NOT HAZARDOUS PER 49CFR 173.4***

Hazard Class: 110

UN Number: UN0001

Packing Group:

Canadian TDG

Shipping Name: ISOPROPYL ALCOHOL

Hazard Class: 3

UN Number: UN1219

**** SECTION 15 - REGULATORY INFORMATION ****

US FEDERAL

TSCA

CAS# 67-63-0 is listed on the TSCA inventory.

CAS# 77-09-8 is listed on the TSCA inventory.

Health & Safety Reporting List

CAS# 67-63-0: Effective Date: December 15, 1986; Sunset Date: December 15, 1996

Chemical Test Rules

CAS# 67-63-0: Testing required by: manufacturers; importers; processor

Section 12b

CAS# 67-63-0: 4/12b

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

SARA

Section 302 (RQ)

None of the chemicals in this material have an RQ.

Section 302 (TPQ)

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 67-63-0: acute, chronic, flammable.

CAS # 77-09-8: acute.

Section 313

This material contains Isopropyl alcohol (CAS# 67-63-0, 99.0%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 372.

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 under the CWA.

OSHA:

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

STATE

Isopropyl alcohol can be found on the following state right to know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

Phenolphthalein is not present on state lists from CA, PA, MN, MA, FL, or NJ.

WARNING: This product contains Phenolphthalein, a chemical known to the state of California to cause cancer.

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: F

Risk Phrases:

R 11 Highly flammable.

Safety Phrases:

S 16 Keep away from sources of ignition - No smoking.

S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS# 67-63-0: 1

CAS# 77-09-8: 1

United Kingdom Occupational Exposure Limits

CAS# 67-63-0: OES-United Kingdom, TWA 400 ppm TWA; 999 mg/m³ TWA

CAS# 67-63-0: OES-United Kingdom, STEL 500 ppm STEL; 1250 mg/m³ STEL

CAS# 67-63-0: OES-United Kingdom, STEL 500 ppm STEL; 1250 mg/m³ STEL

Canada

CAS# 67-63-0 is listed on Canada's DSL/NDSL List.

CAS# 77-09-8 is listed on Canada's DSL/NDSL List.

This product has a WHMIS classification of B2, D2B.
CAS# 67-63-0 is not listed on Canada's Ingredient Disclosure List.
CAS# 77-09-8 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

CAS# 67-63-0: OEL-AUSTRALIA:TWA 400 ppm (980 mg/m³);STEL 500 ppm (1225 mg/m³)
OEL-BELGIUM:TWA 400 ppm (985 mg/m³);STEL 500 ppm (1230 mg/m³)
OEL-DENMARK:TWA 200 ppm (490 mg/m³);Skin
OEL-FRANCE:STEL 400 ppm (980 mg/m³)
OEL-GERMANY:TWA 400 ppm (980 mg/m³)
OEL-JAPAN:STEL 400 ppm (980 mg/m³)
OEL-THE NETHERLANDS:TWA 400 ppm (980 mg/m³);Skin
OEL-THE PHILIPPINES:TWA 400 ppm (980 mg/m³)
OEL-RUSSIA:STEL 400 ppm (10 mg/m³)
OEL-SWEDEN:TWA 150 ppm (350 mg/m³);STEL 250 ppm (600 mg/m³)
OEL-SWITZERLAND:TWA 400 ppm (980 mg/m³);STEL 800 ppm
OEL-TURKEY:TWA 200 ppm (500 mg/m³)
OEL-UNITED KINGDOM:TWA 400 ppm (980 mg/m³);STEL 500 ppm;Skin
OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV
OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

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

MSDS Creation Date: 7/27/1999 Revision #3 Date: 8/02/2000

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 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.