

STERIS CORP -- STERIS 20 STERILANT CONCENTRATE -- 6850-01-380-7658

===== Product Identification =====

Product ID:STERIS 20 STERILANT CONCENTRATE

MSDS Date:02/07/1997

FSC:6850

NIIN:01-380-7658

Status Code:A

MSDS Number: CKPPQ

=== Responsible Party ===

Company Name:STERIS CORP

Address:5960 HEISLEY RD

City:MENTOR

State:OH

ZIP:44060-1834

Country:US

Info Phone Num:216-354-2600 /800-548-4873

Emergency Phone Num:216-354-2600

Preparer's Name:DAWN COLE

CAGE:0NWN1

=== C

Contractor Identification ===

Company Name:STERIS CORP

Address:5960 HEISLEY RD

Box:City:MENTOR

State:OH

ZIP:44060-1834

Country:US

Phone:440-354-2600 /800-548-4873

CAGE:0NWN1

===== Composition/Information on Ingredients =====

Ingred Name:PEROXYACETIC ACID

CAS:79-21-0

RTECS #:SD8750000

= Wt:35.5

Ingred Name:ACETIC ACID

CAS:64-19-7

RTECS #:AF1225000

= Wt:40.

OSHA PEL:25 MG/M3;10 PPM

ACGIH TLV:25 MG/M3;10 PPM

ACGIH STEL:37 MG/M3;15 PPM

EPA Rpt Qty:5000 LBS

DOT Rpt Qty:5000 LBS

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ingred Name:HYDROGEN PEROXIDE
CAS:7722-84-1
RTECS #:MX0899000
= Wt:6.5
OSHA PEL:1.4 MG/M3;1 PPM
ACGIH TLV:1.4 MG/M3;1 PPM

===== Hazards Identification =====

LD50 LC50 Mixture:ORAL LD50(RAT): 600 MG/KG
Routes of Entry: Inhalation:UNKNOWN Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:TARGET ORGANS: EYES, SKIN, LUNGS.
ACUTE EFFECTS: INHALATION-VAPOR/MIST WILL IRRITATE NOSE, THROAT, &
LUNGS, B
UT WILL USUALLY SUBSIDE WHEN EXPOSURE CEASES.
EYE-CORROSIVE; CONTACT MAY CAUSE IRREVERSIBLE EYE DAMAGE,
INCLUDING BLINDNESS. SKIN-CORROSIVE; MAY CAUSE SEVERE BURNS.
ABSORPTION IS MODERATELY HAZARDOUS. INGESTION-MODERATELY TOXIC.
CHRONIC EFFECTS: ACID MAY INCREASE INCIDENCE OF SKIN TUMORS WH EN
ADMINISTERED SIMULTANEOUSLY WITH KNOWN CARCINOGEN TO MICE.
Explanation of Carcinogenicity:IARC, NTP, AND OSHA DO NOT LIST
PEROXYACETIC ACID AS A CARCINOGEN.
Effects of Overexposure
:INHALATION: COUGHING AND BREATHING DIFFICULTY
MAY ALSO OCCUR. EYE: BLINDNESS. SKIN: SEVERE BURNS.

===== First Aid Measures =====

First Aid:INHALATION: MOVE SUBJECT FRESH AIR, IF NEEDED, APPLY
ARTIFICIAL RESPIRATION AND OXYGEN. EYE CONTACT: WASH OPENED EYE
IMMEDIATELY WITH WATER FOR 15 MINUTES. CALL OPHTHALMOLOGIST. SKIN
CONTACT: WASH IMME DIATELY WITH SOAP AND WATER. REMOVE CONTAMINATED
CLOTHING. INGESTION: DO NOT INDUCE VOMITING. RINSE
MOUTH WITH
WATER. DRINK A LARGE QUANTITY OF EGG WHITES, GELATIN SOLUTION, OR
IF NOT AVAILABLE, LARGE QUANTITIES OF WATER. AFTER FIRST AID, GET
APPROPRIATE MEDICAL SUPPORT.

===== Fire Fighting Measures =====

Flash Point Method:OC
Flash Point:=46.1C, 115.F
Autoignition Temp:=218.C, 424.4F
Extinguishing Media:USE WATER ONLY.
Fire Fighting Procedures:DON`T ENTER ENCLOSED/CONFINED BURNING SPACE
THAT MAY CONTAIN PEROXYACETIC ACID WITHOUT PROPER PR

PROTECTIVE

EQUIPMENT INCLUDING A SELF-CONTAINED BREATHING APPARATUS & FULL PROTECTIVE CLOTHING. USE WATER SPRAY TO KEEP FIRE EXPOSED CONTAINERS COOL. FIGHT FIRE FROM PROTECTED LOCATION OR MAXIMUM DISTANCE.

Unusual Fire/Explosion Hazard: STABILIZED PEROXYACETIC ACID DECOMPOSES UNDER FIRE CONDITIONS TO RELEASE OXYGEN THAT MAY INTENSIFY THE FIRE.

===== Accidental Release Measures =====

Spill Release Procedures: (1) INCREASE VENTILATION (2) SHUT OFF

IGNITION SOURCES (3) PUT ON PROTECTIVE GOGGLES, APRON, & OTHER IMPERVIOUS CLOTHING. USE SELF-CONTAINED BREATHING APPARATUS (SCBA) APPROVED BY NIOSH/OSHA (4) APPROACH RELEASE FROM UPWIND. FLUSH SPILLED MATERIALS WITH LARGE QUANTITIES OF WATER OR UNTIL ALL MATERIAL IS DISSOLVED BY 20 VOLUMES (5) REMOVE UNOPENED CONTAINER TO SINK OF WATER & SUBMERGE & DILUTE.

Neutralizing Agent: DILUTE WITH 20 PARTS OF WATER PER ONE PART PEROXYACETIC ACID.

===== Handling and Storage =====

Handling and Storage Precautions: DO NOT REMOVE CONTAINER FROM CARBON UNTIL TIME OF USE. AVOID PHYSICAL DAMAGE TO STERIS 20 STERILANT CONCENTRATE CONTAINERS. STORE IN A COOL, DRY AREA (>86°F). STORE IN AN UPRIGHT POSITION. AVOID HEAT, MOISTURE, SUNLIGHT, OR CONTAMINATING SUBSTANCES. PROVIDE MECHANICAL LOCAL EXHAUST VENTILATION.

Other Precautions: LARGE SPILL: FOR LARGE SPILLS, DIKE FAR AHEAD OF LIQUID SPILL FOR LATER DISPOSAL. DO NOT RELEASE UNDILUTED MATERIAL INTO SEWERS OR WATERWAYS. CLEANUP: DILUTE WITH 20 PARTS OF WATER PER ONE PART PEROXY ACETIC ACID.

===== Exposure Controls/Personal Protection =====

Respiratory Protection: FOLLOW ASHA RESPIRATOR REFILLATIONS (29 CFR 1910.134) AND WEAR A MSHA/NIOSH-APPROVED RESPIRATOR BASED ON ITS SUITABILITY TO PROVIDE ADEQUATE WORKER PROTECTION FOR GIVEN WORKING CONDITIONS, LEVEL OF AIRBORNE CONTAMINATION, AND PRESSURE OF SUFFICIENT OXYGEN

. FOR EMERGENCY OR NON-ROUTINE OPERATIONS WEAR A SCBA.

Ventilation:PROVIDE GENERAL OR LOCAL EXHAUST VENTILATION SYSTEMS. LOCAL EXHAUST VENTILATION IS PREFERRED BECAUSE IT PREVENTS CONTAMINANT DISPERSION INTO THE WORK AREA.

Protective Gloves:WEAR CHEMICALLY PROTECTIVE RUBBER OR NEOPRANE GLOVES.

Eye Protection:WEAR PROTECTIVE EYEGLASSES OR CHEMICAL SAFETY GOGGLES PER OSHA.

Other Protective Equipment:BOOTS, APRONS AND GAUNTLETS TO PREVENT PROLONGED SKIN CONTACT. CONTACT LENSES

ARE NOT EYE PROTECTIVE

DEVICES. APPROPRIATE EYE PROTECTION MUST BE WORN INSTEAD OF, OR IN CONJUNCTION WITH CONTACT LENSES.

Work Hygienic Practices:NEVER EAT, DRINK, OR SMOKE IN WORK AREAS.

PRACTICE GOOD PERSONAL HYGIENE AFTER EXPOSURE TO THIS MATERIAL, ESPECIALLY BEFORE EATING, DRINKING, SMOKING, USING THE TOILET, OR APPLYING COSMETICS.

Supplemental Safety and Health

WARNING: AIR-PURIFYING RESPIRATORS DO NOT PROTECT WORKERS IN OXYGEN DEFICIENT ATMOSPHERES. SAFETY STATIONS:

MAKE EMERGENCY EYEWASH

STATIONS, SAFETY QUICK-DRENCH SHOWERS, & WASHING FACILITIES

AVAILABLE IN WORK AREA. SEPARATE CONTAMINATED WORK CLOTHES FROM STREET CLOTHES. LAUNDRY BEFORE REUSE.

===== Physical/Chemical Properties =====

HCC:P1

Boiling Pt:=107.2C, 225.F

Melt/Freeze Pt:=-44.C, -47.2F

Vapor Pres:20 MM HG AT 77 F (25C)

Spec Gravity:1.13

pH:LESS THAN 1

Evaporation Rate & Reference:ABOVE 1

Solubility in Water:100%

Appearance and Odor:LIQUID; COLORLESS

LIQUID, SHARP, PUNGENT, VINEGAR-LIKE ODOR.

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES

ORGANICS INCLUDING PRIMARY ALCOHOLS, HEAVY METALS, REDUCING AND OXIDIZING AGENTS.

Stability Condition to Avoid:OPEN FLAMES, LIGHT, ELEVATED TEMPERATURES SUCH AS PAPER AND WOOD, MOISTURE, AND CONTAMINATION.

Hazardous Decomposition Products:THERMAL OXIDATIVE DECOMPOSITION OF STERIS 20 STERILANT CONCENTRATE CAN PRODUCE ACID

SMOKE, FUMES,
CARBON DIOXIDE, HCN, ACETIC ACID, AND OXYGEN.

===== Toxicological Information =====

Toxicological Information: ROUTES OF ENTRY: EYE, SKIN, INHALATION, INGESTION. IRRITATION: EYES, SKIN, NOSE, THROAT, LUNGS, MUCOUS MEMBRANES. SENSITIZATION: STERIS 20 STERILANT CONCENTRATE MAY BE CONSIDERED SENSITIZING (GUINEA PIG SENSITIZATION [BLUEHIER]). ACUTE INHALATION EFFECTS: MOUSE, INHALATION, LC50: 524 MG/M3. ACUTE ORAL EFFECTS: RAT, ORAL, LD50: 600 MG/KG. CHRONIC EFFECTS: ACID MAY INCREASE INCIDENCE OF TUMORS WHEN ADMINISTERED SIMULTANEOUSLY WITH KNOWN CARCINOGEN TO MICE. CARCINOGENICITY: IARC, NTP, AND OSHA DO NOT LIST PEROXYACETIC ACID AS A CARCINOGEN.

===== Ecological Information =====

Ecological: STERIS 20 STERILANT CONCENTRATE IS COMPLETELY MISCIBLE WITH WATER. AQUEOUS SOLUTIONS OF STERIS 20 STERILANT CONCENTRATE HYDROLYZE TO ACETIC ACID AND HYDROGEN PEROXIDE WITH A HALF LIFE OF 20 MINUTES AT 50C. NO OTHER FATE DATA IS AVAILABLE. ENVIRONMENTAL DEGRADATION: AQUATIC TOXICITY CLASSIFICATION: 96 HOURS LC50 (FATHEAD MINNOW) > 1000 MG/L AT USE DILUTION.

===== Disposal Considerations =====

Waste Disposal Methods: FOLLOW APPLICABLE NATIONAL, STATE, REGIONAL, AND LOCAL REGULATIONS.

===== MSDS Transport Information =====

Transport Information: SHIPPING NAME: ORGANIC PEROXIDE TYPE E, LIQUID (35% PEROXYACETIC ACID, STABILIZED). HAZARD CLASS: 5.2 SUBSIDIARY: 8. ID NUMBER: UN 3107. PACKING GROUP: PGII. LABEL: 5.2 ORGANIC PEROXIDE (SUBSTANTIAL CORROSIVE). SPECIAL PROVISIONS: NONE. PACKAGING AUTHORIZATIONS: A) EXCEPTIONS: 49 CFR 173.152. B) NON-BULK PACKING: 49 CFR 173.152. C) BULK PACKING: NONE. QUANTITY LIMITATIONS (QUANTITY PER ONE CONTAINER): A) PASSENGER, AIRCRAFT OR RAILCAR: 5 LITERS. B) CARGO AIRCRAFT: 10 LITERS. C) BULK PACKING: NONE. SHIPPING

SYMBOLS: PLACARDING: ORGANIC PEROXIDE 5.2,
CORROSIVE.

===== Regulatory Information =====

SARA Title III Information: SARA 311/312 CODES: PEROXYACETIC ACID: ACUTE HAZARD-YES. CHRONIC HAZARD-NO. FIRE HAZARD-YES. REACTIVITY HAZARD-YES. SUDDEN RELEASE HAZARD-YES. SARA 313 TOXIC CHEMICALS: PEROXYACETIC ACID, CAS #79-21-0. SARA 302 EHS: PEROXYACETIC ACID: 500 LB/1100 KG THRESHOLD PLANNING QUANTITY (TPQ). SARA 304: REPORTABLE QUANTITY=500 LB.

Federal Regulatory Information: EPA REGULATIONS: RCRA HAZARDOUS WASTE NUMBER: PEROXYACETIC ACID: D001, D002. CERCLA SECTION 103 HAZARDOUS SUBSTANCE: UNLISTED SUBSTANCE, REPORTABLE QUANTITY=100 LB/220 KG; CAA, SECTION 112(R) THRESHOLD QUANTITY=10,000 LB. NOT LISTED SPECIFIC PER RCRA, SECTION 3001; CWA, SECTION 311(B)(4); CWA, SECTION 307(A). OSHA REGULATIONS: AIR CONTAMINANTS: NOT LISTED. OSHA SPECIFICALLY REGULATED SUBSTANCE, PROCESS SAFETY: PEROXYACETIC ACID: 1000 LB/2200 KG THRESHOLD QUANTITY.

State Regulatory Information: SAFE DRINKING WATER & TOXIC ENFORCEMENT ACT OF 1986 REQUIRES THAT THE GOVERNMENT OF CALIFORNIA DEVELOP A LIST OF CARCINOGENS (A) AND REPRODUCTIVE TOXINS (B). NO PERSON DOING BUSINESS SHALL KNOWINGLY EXPOSE ANY INDIVIDUAL TO A CHEMICAL ON THIS LIST WITHOUT FIRST GIVING CLEAR & REASONABLE WARNING. 35% PEROXYACETIC ACID CONTAINS LESS THAN 1 PPM ARSENIC(A); LESS THAN 0.5 PPM CHROMIUM (A); AND LESS THAN 1 PPM LEAD (B

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===== Other Information =====

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