ACTRIL[®] Cold Sterilant

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

SECTION 1: Identification of the su	ibstance/mixture and of the com	oanv/undertaki	າດ
.1. Product identifier		sany/andertaki	
Product name	: ACTRIL [®] Cold Sterilant		
Product code	: 78399-509/ 78400-309/ 78399-510/ 7	8399-482, 78400-22	6, 78397-640
.2. Relevant identified uses of the su	bstance or mixture and uses advised aga	inst	
se of the substance/mixture	: Sterilization, Disinfection, and Sanitiza	ation of Medical Equ	ipment
.3. Details of the supplier of the safe	ty data sheet		
Medivators Inc. 14605 28th Avenue North Minneapolis, MN 55447 - USA Г 1-800-328-3340			
I.4. Emergency telephone number			
mergency number	: 1-800-424-9300		
SECTION 2: Hazards identification			
.1. Classification of the substance of	mixture		
GHS-US classification Skin irritation 2 Serious eye damage 1			
2.2. Label elements			
lazard pictograms (GHS-US) ignal word (GHS-US) lazard statements (GHS-US) recautionary statements (GHS-US)	 GHS05 Danger Causes skin irritation. Causes serious Wash hands thoroughly after handling on skin: Wash with plenty of water. Ta skin irritation occurs: Get medical adv several minutes. Remove contact lens Immediately call a poison center/doct 	. Wear protective gl ake off contaminated ice/attention. If in ey ses, if present and ea	clothing and wash it before reuse. If es: Rinse cautiously with water for
.3. Other hazards			
lo additional information available.			
SECTION 3: Composition/informat	ion on ingredients		
.1. Substance			
lot applicable.			
.2. Mixture			
Name	Product identifier	%	GHS-US classification
Acetic acid	(CAS No) 64-19-7	5.2	Flam. Liq. 3 Acute Tox. 4 (Dermal) Skin Corr. 1A
Hydrogen peroxide	(CAS No) 7722-84-1	1.0	Ox. Liq. 1 Acute Tox. 4 (Oral) Acute Tox. 4 (Inhalation) Skin Corr. 1A

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation

: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

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First-aid measures after skin cont	act :		skin with plenty of water. Remove contaminated clothing e. Call a physician if irritation develops or persists.
First-aid measures after eye conta	act :	In case of contact, immediately flush e	eyes with plenty of water for at least 15 minutes. If easy to
irst-aid measures after ingestion	:	, 0	et medical attention immediately. unless directed to do so by medical personnel. Never give person. Get medical advice/attention if you feel unwell.
4.2. Most important sympt	toms and effects.	both acute and delayed	
Symptoms/injuries after inhalatior	ו :	May cause respiratory tract irritation.	
Symptoms/injuries after skin cont	act :	Causes skin irritation. Symptoms may of the skin.	include redness, edema, drying, defatting and cracking
Symptoms/injuries after eye conta	act :	Causes serious eye damage. Symptotear production, with marked redness	ms may include discomfort or pain, excess blinking and and swelling of the conjunctiva.
Symptoms/injuries after ingestion	:	May be harmful if swallowed. May cau	use stomach distress, nausea or vomiting.
4.3. Indication of any imm	ediate medical at	tention and special treatment neede	d
Symptoms may not appear immedi	ately. In case of ac	cident or if you feel unwell, seek medical a	advice immediately (show the label or SDS where possible).
SECTION 5: Firefighting	measures		
5.1. Extinguishing media			
Suitable extinguishing media	:	Treat for surrounding material.	
Unsuitable extinguishing media	:	None known.	
5.2. Special hazards arisin	ig from the subst	ance or mixture	
Fire hazard	:	Products of combustion may include,	and are not limited to: oxides of carbon.
5.3. Advice for firefighters	•		
Protection during firefighting	:	Keep upwind of fire. Wear full fire fight protection (SCBA).	ting turn-out gear (full Bunker gear) and respiratory
SECTION 6: Accidental r	elease measu	res	
6.1. Personal precautions,	, protective equir	ment and emergency procedures	
General measures			d in Section 8. Isolate the hazard area and deny entry to nel.
6.2. Environmental precau	itions		
Relevant water authorities should	be notified of any	large spillage to water course or drain.	
6.3. Methods and material	for containment	and cleaning up	
For containment	:	Contain and/or absorb spill with inert r container. Use appropriate personal p	naterial (e.g. sand, vermiculite), then place in a suitable rotection equipment (PPE).
Methods for cleaning up	:	Scoop up material and place in a disp	osal container.
6.4. Reference to other se	ctions		
See section 8 for further informati	on on protective c	lothing and equipment and section 13 f	or advice on waste disposal.
SECTION 7: Handling and	d storage		
7.1. Precautions for safe h	andling		
Precautions for safe handling	:		id breathing dust/fume/gas/mist/vapors/spray. Do not vith care. When using do not eat, drink or smoke.
Hygiene measures	:	Launder contaminated clothing before	reuse. Wash hands before eating, drinking, or smoking.
		Ç	reuse. Wash hands before eating, drinking, or smoking.
7.2. Conditions for safe st	orage, including	Ç	
7.2. Conditions for safe st Storage conditions	orage, including	any incompatibilities	
Conditions for safe st Storage conditions 7.3. Specific end use(s)	orage, including	any incompatibilities	
Conditions for safe st Storage conditions 7.3. Specific end use(s) Not available.	orage, including	any incompatibilities Keep out of the reach of children. Kee	
Conditions for safe st Storage conditions 7.3. Specific end use(s) Not available. SECTION 8: Exposure co	orage, including	any incompatibilities Keep out of the reach of children. Kee	
Conditions for safe st Storage conditions 7.3. Specific end use(s) Not available. SECTION 8: Exposure co 8.1. Control parameters	orage, including	any incompatibilities Keep out of the reach of children. Kee	
7.2. Conditions for safe st Storage conditions 7.3. Specific end use(s) Not available. SECTION 8: Exposure co 8.1. Control parameters Acetic acid (64-19-7)	orage, including	any incompatibilities Keep out of the reach of children. Kee nal protection	p container tightly closed.
7.2. Conditions for safe st Storage conditions 7.3. Specific end use(s) Not available. SECTION 8: Exposure co 8.1. Control parameters Acetic acid (64-19-7) ACGIH	orage, including	any incompatibilities Keep out of the reach of children. Kee nal protection	p container tightly closed.
Storage conditions 7.3. Specific end use(s) Not available. SECTION 8: Exposure co 8.1. Control parameters Acetic acid (64-19-7) ACGIH	orage, including : ontrols/person ACGIH TWA (ppn ACGIH STEL (ppn	any incompatibilities Keep out of the reach of children. Kee nal protection n) m)	p container tightly closed. 10 ppm 15 ppm
7.2. Conditions for safe st Storage conditions 7.3. Specific end use(s) Not available. SECTION 8: Exposure co 8.1. Control parameters Acetic acid (64-19-7) ACGIH	orage, including	any incompatibilities Keep out of the reach of children. Kee nal protection n) m)	p container tightly closed.

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Acetic acid (64-19-7)		
OSHA	OSHA PEL (TWA) (ppm)	10 ppm
Hydrogen peroxide (7722-84	-1)	
ACGIH	ACGIH TWA (ppm)	1 ppm
OSHA	OSHA PEL (TWA) (mg/m³)	1.4 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	1 ppm

8.2. **Exposure controls**

Appropriate engineering controls	: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.
Hand protection	: Wear chemically resistant protective gloves.
Eye protection	: Wear approved eye protection (properly fitted dust- or splash-proof chemical safety goggles) and face protection (face shield).
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Environmental exposure controls	: Maintain levels below Community environmental protection thresholds.
Other information	: Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

SECTION 9: Physical and chemica	l properties	
9.1. Information on basic physical and	d chemical properties	
Physical state	: Liquid	
Appearance	: Clear	
Colour	: Colourless	
Odour	: Acidic	
Odour threshold	: No data available	
рН	: 1.5 – 2.0	
Relative evaporation rate (butylacetate=1)	: No data available	
Melting point	: No data available	
Freezing point	: No data available	
Boiling point	: No data available	
Flash point	: ≈ 110 °C (230 °F)	
Auto-ignition temperature	: No data available	
Decomposition temperature	: No data available	
Flammability (solid, gas)	: Not flammable	
Vapour pressure	: No data available	
Relative vapour density at 20 °C	: No data available	
Relative density	: 1.01	
Solubility	: No data available	
Log Pow	: No data available	
Log Kow	: No data available	
Viscosity, kinematic	: No data available	
Viscosity, dynamic	: No data available	
Explosive properties	: No data available	
Oxidising properties	: No data available	
Explosive limits	: No data available	
9.2. Other information		
No additional information available.		
SECTION 10: Stability and reactivi	ty	
10.1. Reactivity		

10.1. Reactivity

No dangerous reaction known under conditions of normal use.

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10.2. Chemical stability	
Stable under normal storage conditions.	
10.3. Possibility of hazardous reactions	
No dangerous reaction known under conditions of	normal use.
10.4. Conditions to avoid	
Heat.	
10.5. Incompatible materials None known. Incompatible materials	
10.6. Hazardous decomposition products	
May include, and are not limited to: oxides of carb	
SECTION 11: Toxicological information	on
11.1. Information on toxicological effects	
Acute toxicity	: Not classified.
ACTRIL Cold Sterilant	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	> 20 mg/l/4h
Acetic acid (64-19-7)	
LD50 oral rat	3310 mg/kg
LD50 dermal rabbit	1060 mg/kg
LC50 inhalation rat	11.4 mg/l/4h
Hydrogen peroxide (7722-84-1)	004 mm/lm
LD50 oral rat LD50 dermal rabbit	801 mg/kg 2000 mg/kg
LC50 inhalation rat	2 g/m ³ /4h
Skin corrosion/irritation	Causes skin irritation (on basis of test data).
Serious eye damage/irritation	: Causes serious eve damage.
Respiratory or skin sensitisation	: Based on available data, the classification criteria are not met.
Germ cell mutagenicity	: Based on available data, the classification criteria are not met.
Carcinogenicity	: Based on available data, the classification criteria are not met.
Hydrogen peroxide (7722-84-1)	
IARC group	3 - Not classifiable
Reproductive toxicity	: Based on available data, the classification criteria are not met.
Specific target organ toxicity (single exposure)	: Based on available data, the classification criteria are not met.
	: Based on available data, the classification criteria are not met.
Aspiration hazard	: Based on available data, the classification criteria are not met.
Aspiration nazaru	
Symptoms/injuries after inhalation	: May cause respiratory tract irritation.
Symptoms/injuries after skin contact	: Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.
Symptoms/injuries after eye contact	: Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
Symptoms/injuries after ingestion	: May be harmful if swallowed. May cause stomach distress, nausea or vomiting.
SECTION 12: Ecological information	
12.1. Toxicity	
E e de sus sus sus l	 Net a substance of the last sub

EC50 Daphnia 1 LC50 fish 2

Acetic acid (64-19-7) LC50 fishes 1

79 mg/l (96 h - Pimephales promelas [static]) 65 mg/l (48 h - Daphnia magna [Static])

: Not considered to be harmful to aquatic life.

75 mg/l (96 h - Lepomis macrochirus [static])

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Hydrogen peroxide (7722-84-1)	
LC50 fishes 1	16.4 mg/l (96 h - Pimephales promelas)
EC50 Daphnia 1	18 - 32 mg/l (48 h - Daphnia magna [Static])
LC50 fish 2	18 - 56 mg/l (96 h - Lepomis macrochirus [static])
2.2. Persistence and degradability	
ACTRIL Cold Sterilant Persistence and degradability	Not established.
2.3. Bioaccumulative potential	
ACTRIL Cold Sterilant Bioaccumulative potential	Not established.
•	
Acetic acid (64-19-7)	-0.31 (at 20 °C)
Log Pow	-0.31 (at 20 C)
Hydrogen peroxide (7722-84-1)	
BCF fish 1	(no bioaccumulation)
2.4. Mobility in soil	
o additional information available.	
2.5. Other adverse effects	· No additional information quallable
ffect on ozone layer	: No additional information available
ffect on the global warming	: No known ecological damage caused by this product.
ECTION 13: Disposal considera	itions
3.1. Waste treatment methods	
3.1. Waste treatment methods Vaste disposal recommendations	This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.
aste disposal recommendations	regulations. The generation of waste should be avoided or minimized wherever possible.
aste disposal recommendations	regulations. The generation of waste should be avoided or minimized wherever possible.
aste disposal recommendations ECTION 14: Transport information accordance with DOT	regulations. The generation of waste should be avoided or minimized wherever possible.
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Vaste disposal recommendations ECTION 14: Transport information accordance with DOT 4.1. UN number ot regulated for transport. 4.2. UN proper shipping name	regulations. The generation of waste should be avoided or minimized wherever possible.
aste disposal recommendations ECTION 14: Transport information accordance with DOT 4.1. UN number ot regulated for transport. 4.2. UN proper shipping name ot applicable.	regulations. The generation of waste should be avoided or minimized wherever possible.
Vaste disposal recommendations ECTION 14: Transport information accordance with DOT 4.1. UN number ot regulated for transport. 4.2. UN proper shipping name ot applicable. 4.3. Additional information	regulations. The generation of waste should be avoided or minimized wherever possible.
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 aste disposal recommendations ECTION 14: Transport information accordance with DOT 4.1. UN number ot regulated for transport. 4.2. UN proper shipping name ot applicable. 4.3. Additional information ther information 	regulations. The generation of waste should be avoided or minimized wherever possible.
/aste disposal recommendations ECTION 14: Transport information accordance with DOT 4.1. UN number ot regulated for transport. 4.2. UN proper shipping name ot applicable. 4.3. Additional information ther information pecial transport precautions	 regulations. The generation of waste should be avoided or minimized wherever possible. ion : No supplementary information available. : Do not handle until all safety precautions have been read and understood.
Vaste disposal recommendations ECTION 14: Transport information accordance with DOT 4.1. UN number ot regulated for transport. 4.2. UN proper shipping name ot applicable. 4.3. Additional information ther information pecial transport precautions ECTION 15: Regulatory information	 regulations. The generation of waste should be avoided or minimized wherever possible. ion : No supplementary information available. : Do not handle until all safety precautions have been read and understood.
 Vaste disposal recommendations ECTION 14: Transport information accordance with DOT 4.1. UN number ot regulated for transport. 4.2. UN proper shipping name ot applicable. 4.3. Additional information ther information pecial transport precautions ECTION 15: Regulatory information A.1. US Federal regulations All components of this product are listed, or 	 regulations. The generation of waste should be avoided or minimized wherever possible. ion : No supplementary information available. : Do not handle until all safety precautions have been read and understood. tion or excluded from listing, on the United States Environmental Protection Agency Toxic
Vaste disposal recommendations ECTION 14: Transport information accordance with DOT 4.1. UN number Not regulated for transport. 4.2. UN proper shipping name Not applicable. 4.3. Additional information Other information Section 15: Regulatory information 5.1. US Federal regulations	 regulations. The generation of waste should be avoided or minimized wherever possible. ion : No supplementary information available. : Do not handle until all safety precautions have been read and understood. tion or excluded from listing, on the United States Environmental Protection Agency Toxic
Vaste disposal recommendations ECTION 14: Transport information accordance with DOT 4.1. UN number lot regulated for transport. 4.2. UN proper shipping name lot applicable. 4.3. Additional information other information pecial transport precautions ECTION 15: Regulatory informa 5.1. US Federal regulations All components of this product are listed, of Substances Control Act (TSCA) inventory. 5.3. US State regulations ICTRIL Cold Sterilant	 regulations. The generation of waste should be avoided or minimized wherever possible. ion : No supplementary information available. : Do not handle until all safety precautions have been read and understood. tion or excluded from listing, on the United States Environmental Protection Agency Toxic
Vaste disposal recommendations ECTION 14: Transport information accordance with DOT 4.1. UN number lot regulated for transport. 4.2. UN proper shipping name lot applicable. 4.3. Additional information Other information repecial transport precautions ECTION 15: Regulatory information 5.1. US Federal regulations All components of this product are listed, of Substances Control Act (TSCA) inventory.	 regulations. The generation of waste should be avoided or minimized wherever possible. ion : No supplementary information available. : Do not handle until all safety precautions have been read and understood. tion or excluded from listing, on the United States Environmental Protection Agency Toxic
Vaste disposal recommendations ECTION 14: Transport information accordance with DOT 4.1. UN number lot regulated for transport. 4.2. UN proper shipping name lot applicable. 4.3. Additional information other information pecial transport precautions ECTION 15: Regulatory information 5.1. US Federal regulations All components of this product are listed, of Substances Control Act (TSCA) inventory. 5.3. US State regulations CTRIL Cold Sterilant tate or local regulations	 regulations. The generation of waste should be avoided or minimized wherever possible. ion : No supplementary information available. : Do not handle until all safety precautions have been read and understood. ation br excluded from listing, on the United States Environmental Protection Agency Toxic This product does not contain a chemical known to the State of California to cause cance
Vaste disposal recommendations ECTION 14: Transport information accordance with DOT 4.1. UN number tot regulated for transport. 4.2. UN proper shipping name tot applicable. 4.3. Additional information ther information pecial transport precautions ECTION 15: Regulatory information 5.1. US Federal regulations All components of this product are listed, of Substances Control Act (TSCA) inventory. 5.3. US State regulations CTRIL Cold Sterilant tate or local regulations ECTION 16: Other information	regulations. The generation of waste should be avoided or minimized wherever possible. ion : No supplementary information available. : Do not handle until all safety precautions have been read and understood. tion or excluded from listing, on the United States Environmental Protection Agency Toxic This product does not contain a chemical known to the State of California to cause cance birth defects or other reproductive harm.
Vaste disposal recommendations ECTION 14: Transport information accordance with DOT 4.1. UN number lot regulated for transport. 4.2. UN proper shipping name lot applicable. 4.3. Additional information Other information special transport precautions ECTION 15: Regulatory information 5.1. US Federal regulations All components of this product are listed, of Substances Control Act (TSCA) inventory. 5.3. US State regulations ACTRIL Cold Sterilant	regulations. The generation of waste should be avoided or minimized wherever possible. ion : No supplementary information available. : Do not handle until all safety precautions have been read and understood. tion reculuded from listing, on the United States Environmental Protection Agency Toxic This product does not contain a chemical known to the State of California to cause cancer

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