

MATERIAL SAFETY DATA SHEET

Page 1 of 4

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: CITRACE® HOSPITAL GERMICIDE		DATE: May 12, 2009	
PRODUCT NUMBER: 49100 (14 oz Spray Can), 49110 (5oz Spray Can)			
TRADE NAME: CITRACE® HOSPITAL GERMICIDE		 CITRACE® HOSPITAL GERMICIDE	
GENERAL USE: Hospital Germicide			
CHEMICAL FAMILY: Phenolic in Ethanol			
PRODUCT DESCRIPTION: Pressurized aerosol, clear pale yellow liquid with a citrus odor.			
MANUFACTURER: Caltech Industries, Inc.		DATE PREPARED: May 12, 2009	
ADDRESS (NUMBER, STREET, P.O. BOX): 4520 E. Ashman Road, Suite C		SUPERSEDES: November 24, 2003	
(CITY, STATE AND ZIP CODE): Midland, MI 48642-8911		TELEPHONE NUMBER FOR INFORMATION / Customer Service: 800-234-7700	
COUNTRY: USA		CHEMTEL 24-HOUR EMERGENCY TELEPHONE NUMBER: 1-800-255-3924 North America Toll Free	

SECTION 2 - HAZARDOUS INGREDIENTS

Hazardous Components	% (by Weight)	CAS #
Ethanol	65-67	64-17-5
Orthophenyl phenol	0.05-2.5	90-43-7
d-limonene	1.0-4.0	5989-27-5
Sodium nitrite	<0.1	7632-00-0
Propane propellant	3-5	74-98-6

Notes: * The balance of ingredients not listed above are non-hazardous as defined in the OSHA hazard communication standard 29CFR 1910.1200.

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
IARC has determined that alcoholic beverages are carcinogenic to humans (Group 1) and the occurrence of malignant tumors of the oral cavity, pharynx, larynx, esophagus and liver is causally related to the consumption of alcoholic beverages in humans. Not listed by ACGIH and NTP.

POTENTIAL HEALTH EFFECTS
INHALATION:
No significant effect expected from a single short-term exposure. Respiratory irritation and depressed CNS function is expected with prolonged and long term exposure.

SKIN:
Essentially non-irritating.

EYES:
May cause eye irritation.

INGESTION:
May cause digestive tract disturbances. Effects of ethyl alcohol ingestion depend on the amount and rate of consumption. Short-term overexposure can cause drunkenness, depression of the central nervous system, nausea, vomiting, diarrhea, and liver damage.

CARCINOGENICITY:
NTP? NO IARC MONOGRAPHS? Yes, Ethyl Alcohol. OSHA REGULATED? NO
CALIFORNIA, Prop.65? Ethyl Alcohol for Developmental Reproductive Toxicity. Orthophenyl Phenol for carcinogenicity.

SECTION 4 - FIRST AID MEASURES

INHALATION:
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Consult medical personnel.

EYES:
If in eyes, hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eyes. Seek medical attention if irritation persists.

SKIN:
Wash with soap and water, no further first aid should be required.

INGESTION:
If ingested in large amounts and victim is conscious and able to swallow, have victim drink water to dilute. Call a physician or Poison Control Center. Never give anything by mouth if a victim is unconscious or having convulsions. Induce vomiting only if advised by a physician or Poison Control Center.

MATERIAL SAFETY DATA SHEET

Page 2 of 4

PRODUCT NAME: CITRACE® HOSPITAL GERMICIDE
PRODUCT NUMBER: 49100 (14 oz Spray Can), 49110 (5oz Spray Can) **DATE:** May 12, 2009

SECTION 5 - FIRE FIGHTING MEASURES

GENERAL HAZARDS:

Aerosol package when exposed to extreme heat above 130°F could rupture releasing flammable ingredients. Ethanol vapors are heavier than air and may travel a considerable distance to a source of ignition and flash back. Alcohols burn with a pale blue flame which may be extremely hard to see under normal lighting conditions. Personnel may only be able to feel the heat of the fire without seeing flames. Extreme caution must be exercised in fighting alcohol fires. Flash point=20°C (68°F) Closed cup.

EXTINGUISHING MEDIA:

Water fog, carbon dioxide and dry chemical.

FIRE FIGHTING PROCEDURES:

Wear SCBA when fighting fires involving this product. Individual aerosol containers are under pressure and can and will rupture under fire conditions sometimes with explosive force.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Fight fire as with any flammable aerosol product.

HAZARDOUS COMBUSTION PRODUCTS:

Carbon monoxide, Carbon Dioxide.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Eliminate all sources of ignition. Stop leak if without risk. Absorb spill with inert material (vermiculite, earth, or sand). Dispose of saturated absorbent materials appropriately since spontaneous heating may occur.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Handle in areas equipped with good area ventilation. Avoid buildup of vapors in confined areas. Do not puncture, incinerate, store in heat or sun as container may burst above 130°F. Avoid contact with food. Flammable. Do not use near fire, sparks, or flame. Do not spray in eyes. Contents under pressure. STORE AS LEVEL 2 AEROSOL (NFPA 30B).

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

HAZARDOUS COMPONENTS	NIOSH				ACGIH		OSHA	
	TWA ppm	TWA mg/m3	STEL ppm	STEL mg/m3	TLV/TWA ppm	TWA mg/m3	STEL ppm	STEL mg/m3
Ethanol	1000	1900	3300 IDLH		1000		1000	1900
Orthophenyl phenol	NE	NE	NE	NE	NE	NE	NE	NE
d-limonene	NE	NE	NE	NE	NE	NE	NE	NE
Sodium nitrite	NE	NE	NE	NE	NE	NE	NE	NE
Propane propellant					1000		1000	

PERSONAL PROTECTION

RESPIRATORY PROTECTION:

A respiratory protection program that meets OSHA's 29 CFR 1910.134, ANSI Z88.2 requirements must be followed whenever workplace concentrations of this product in air exceed the published TLV's.

PROTECTIVE GLOVES:

Impervious rubber, or nitrile gloves are advised if prolonged or repeated exposure is likely.

EYE PROTECTION:

Use safety glasses with protective side shields to avoid eye contact.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Not required.

WORK / HYGIENIC PRACTICES:

Wash with soap and water after contact.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR

Pressurized Aerosol, clear pale yellow liquid with a citrus odor.

VAPOR PRESSURE

40mmHg at 20°C

pH

9.5

SPECIFIC GRAVITY (WATER = 1)

0.867

BOILING POINT / BOILING RANGE

80°C (176°F)

SOLUBILITY IN WATER

Dispersable

FLASH POINT

20°C (68°F) Closed cup.

VISCOSITY

NA

FLAMMABLE LIMITS

LEL: NE

UEL: NE

VAPOR DENSITY (AIR = 1)

<1

AUTOIGNITION TEMPERATURE

NE

EVAPORATION RATE (WATER = 1)

NR

MATERIAL SAFETY DATA SHEET

Page 3 of 4

PRODUCT NAME: CITRACE® HOSPITAL GERMICIDE
PRODUCT NUMBER: 49100 (14 oz Spray Can), 49110 (5oz Spray Can) **DATE:** May 12, 2009

SECTION 10 - STABILITY AND REACTIVITY

STABILITY	STABLE	X	CONDITIONS TO AVOID: Excessive heat above 130°F, do not puncture or incinerate. Avoid sources of ignition.
------------------	--------	----------	--

INCOMPATIBILITY (MATERIALS TO AVOID):
 Strong acids, Strong oxidizers.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS:
 Carbon Monoxide, Carbon Dioxide.

HAZARDOUS POLYMERIZATION: Will not occur.	CONDITIONS TO AVOID: None related to polymerization.
---	--

SECTION 11 - TOXICOLOGICAL INFORMATION

Hazardous Components	CAS #	LD50 of Ingredient (Specify Species and Route)	LC50 of Ingredient (Specify Species)
Ethanol	64-17-5	Oral, mouse: LD50 = 3450 mg/kg Oral, rat: LD50 = 7060 mg/kg	Inhalation, mouse: LC50 = 39 gm/m ³ /4H
Orthophenyl phenol	90-43-7	Oral, mouse: LD50 = 1050 mg/kg Oral, rat: LD50 = 2700 mg/kg	NE
d-limonene	5989-27-5	Oral, mouse: LD50 = 5600 mg/kg Oral, rat: LD50 = 4400 mg/kg	NE
Sodium nitrite	7632-00-0	Oral, mouse: LD50 = 175 mg/kg Oral, rat: LD50 = 180 mg/kg	Inhalation, rat: LC50 = 5.5 mg/m ³ /4H
Propane propellant	74-98-6	NE	NE

SECTION 12 - ECOLOGICAL INFORMATION

No information is available for this blended product.

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD:
 Landfill in a permitted waste disposal facility in accordance with all local, state, and federal regulations. Do not incinerate.

SECTION 14 - TRANSPORT INFORMATION

PROPER SHIPPING NAME: ORM-D Consumer Commodity (within USA only)	
DOT HAZARD CLASS / Pack Group: ORM-D Consumer Commodity Ground Only	IATA HAZARD CLASS / Pack Group: Contact Manufacturer
REFERENCE: 49CFR172, 49CFR173	IMDG HAZARD CLASS: Contact Manufacturer
UN / NA IDENTIFICATION NUMBER: None - ORM-D	RID/ADR Dangerous Goods Code: Contact Manufacturer
LABEL: ORM-D Consumer Commodity (USA Ground Only)	UN TDG Class / Pack Group: Contact Manufacturer
CONSUMER COMMODITY ORM-D	Hazard Identification Number (HIN): Contact Manufacturer
	Refer to 49CFR172 and 49CFR173 for pertinent regulations.

Note: Transportation information provided is for reference only. Client is urged to consult CFR 49 parts 100 - 177, IMDG, IATA, EU, United Nations TDG, and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

MATERIAL SAFETY DATA SHEET

Page 4 of 4

PRODUCT NAME: CITRACE® HOSPITAL GERMICIDE																
PRODUCT NUMBER: 49100 (14 oz Spray Can), 49110 (5oz Spray Can)	DATE: May 12, 2009															
SECTION 15 - REGULATORY INFORMATION																
TSCA (USA - Toxic Substance Control Act): Listed.																
SARA TITLE III (USA - Superfund Amendments and Reauthorization Act):																
Acute Health: Yes	Chronic Health: Yes															
Fire: Yes	Sudden Release of Pressure: Yes															
Reactive: No																
313 REPORTABLE INGREDIENTS: This material contains 2-Phenylphenol (CAS# 90-43-7, 0.05-2.5%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR.																
CERCLA (USA - Comprehensive Response Compensation and Liability Act): No RQ's listed.																
California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986: WARNING: This product contains Ethyl alcohol, a chemical known to the state of California to cause developmental reproductive toxicity. WARNING: This product contains 2-Phenylphenol, a chemical known to the state of California to cause cancer.																
SECTION 16 - OTHER INFORMATION																
Legend: NA=Not applicable NE= Not established NR= Not reported																
HMIS HAZARD RATINGS	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>HEALTH:</td> <td style="text-align: center;">1</td> <td>0 = INSIGNIFICANT</td> </tr> <tr> <td>FLAMMABILITY:</td> <td style="text-align: center;">3</td> <td>1 = SLIGHT</td> </tr> <tr> <td>PHYSICAL HAZARD:</td> <td style="text-align: center;">0</td> <td>2 = MODERATE</td> </tr> <tr> <td>PERSONAL PROTECTIVE EQUIPMENT:</td> <td style="text-align: center;">B</td> <td>3 = HIGH</td> </tr> <tr> <td></td> <td style="text-align: center;"></td> <td>4 = EXTREME</td> </tr> </table>	HEALTH:	1	0 = INSIGNIFICANT	FLAMMABILITY:	3	1 = SLIGHT	PHYSICAL HAZARD:	0	2 = MODERATE	PERSONAL PROTECTIVE EQUIPMENT:	B	3 = HIGH			4 = EXTREME
HEALTH:	1	0 = INSIGNIFICANT														
FLAMMABILITY:	3	1 = SLIGHT														
PHYSICAL HAZARD:	0	2 = MODERATE														
PERSONAL PROTECTIVE EQUIPMENT:	B	3 = HIGH														
		4 = EXTREME														
NFPA HAZARD RATINGS	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>HEALTH:</td> <td style="text-align: center;">1</td> <td>0 = NONE</td> </tr> <tr> <td>FLAMMABILITY:</td> <td style="text-align: center;">3</td> <td>1 = SLIGHT/LITTLE</td> </tr> <tr> <td>REACTIVITY:</td> <td style="text-align: center;">0</td> <td>2 = MODERATE</td> </tr> <tr> <td>SPECIAL HAZARDS:</td> <td style="text-align: center;">None*</td> <td>3 = HIGH/SERIOUS</td> </tr> <tr> <td></td> <td></td> <td>4 = EXTREME</td> </tr> </table> * - Refers to NFPA recognized Hazards Only	HEALTH:	1	0 = NONE	FLAMMABILITY:	3	1 = SLIGHT/LITTLE	REACTIVITY:	0	2 = MODERATE	SPECIAL HAZARDS:	None*	3 = HIGH/SERIOUS			4 = EXTREME
HEALTH:	1	0 = NONE														
FLAMMABILITY:	3	1 = SLIGHT/LITTLE														
REACTIVITY:	0	2 = MODERATE														
SPECIAL HAZARDS:	None*	3 = HIGH/SERIOUS														
		4 = EXTREME														
REVISION SUMMARY: Revised with additional shipping information 5/12/2009, supercedes 11/24/2003 issue. JTV/LB																
MSDS Prepared by: ChemTel Inc. 1305 North Florida Avenue Tampa, Florida USA 33602-2902 Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573 Website: www.chemtelinc.com																
The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.																