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SECTION 1: Product and company identification

Product name	: Hospital Disinfectant
Use of the substance/mixture	: Aerosol Disinfectant
Product code	: 8421
Company	: Total Solutions P.O. Box 240014 Milwaukee, WI 53224 - USA T (414) 354-6417
Emergency number	: Chemtrec: (800) 424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Flam. Aerosol 1H222Press. Gas (Liq.)H280Skin Sens. 1H317

2.2. Label elements	
GHS-US labeling	
Hazard pictograms (GHS-US)	GHS02 GHS04 GHS07
Signal word (GHS-US)	: Danger
Hazard statements (GHS-US)	 Extremely flammable aerosol Contains gas under pressure; may explode if heated May cause an allergic skin reaction
Precautionary statements (GHS-US)	 Contaminated work clothing must not be allowed out of the workplace Pressurized container: Do not pierce or burn, even after use. Avoid breathing gas. Do not spray on an open flame or other ignition source. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear protective gloves.

2.3. Other hazards No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

Full text of H-phrases: see section 16

3.2. Mixtures			
Name	Product identifier	%	GHS-US classification
ethanol	(CAS-No.) 64-17-5	40 - 60	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336
butane	(CAS-No.) 106-97-8	20 - 40	Flam. Gas 1, H220 Press. Gas (Comp.), H280
propane	(CAS-No.) 74-98-6	2.5 - 10	Flam. Gas 1, H220 Press. Gas (Comp.), H280

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A specific chemical identity and/or percentage of composition has been withheld as a trade secret. Any concentration shown as a range is to protect confidentiality or is due to batch variation.

4.1. Description of first aid measures	s
First-aid measures general	: Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
First-aid measures after inhalation	: Remove the victim into fresh air. If symptoms persist, call a physician.
First-aid measures after skin contact	: In case of eczema or other skin disorders: Seek medical attention and take along these instructions.
First-aid measures after eye contact	: Rinse with water. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. Get medical attention immediately if symptoms occur.
4.2. Most important symptoms and e	
Symptoms/effects	: Headache. May cause an allergic skin reaction. Dermatitis.
Symptoms/effects after inhalation	: Coughing. Headache.
Symptoms/effects after skin contact	: Skin rash/inflammation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: May cause slight irritation.
Symptoms/effects after ingestion	: Not expected to present a significant ingestion hazard under anticipated conditions of normal use.
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5.1. Extinguishing media	
5.1. Extinguishing media Suitable extinguishing media	 Water fog. Alcohol-resistant foam. Dry chemical powder. Carbon dioxide. Not applicable.
5.1. Extinguishing media Suitable extinguishing media Unsuitable extinguishing media	: Water fog. Alcohol-resistant foam. Dry chemical powder. Carbon dioxide. : Not applicable.
 5.1. Extinguishing media Suitable extinguishing media Unsuitable extinguishing media 5.2. Special hazards arising from the 	: Water fog. Alcohol-resistant foam. Dry chemical powder. Carbon dioxide. : Not applicable.
 5.1. Extinguishing media Suitable extinguishing media Unsuitable extinguishing media 5.2. Special hazards arising from the Fire hazard 	: Water fog. Alcohol-resistant foam. Dry chemical powder. Carbon dioxide. : Not applicable. substance or mixture
 SECTION 5: Firefighting measure 5.1. Extinguishing media Suitable extinguishing media Unsuitable extinguishing media 5.2. Special hazards arising from the Fire hazard Explosion hazard 5.3. Advice for firefighters 	Water fog. Alcohol-resistant foam. Dry chemical powder. Carbon dioxide. Not applicable. substance or mixture Contains gas under pressure; may explode if heated. May liberate toxic gases.
 5.1. Extinguishing media Suitable extinguishing media Unsuitable extinguishing media 5.2. Special hazards arising from the Fire hazard Explosion hazard 5.3. Advice for firefighters 	Water fog. Alcohol-resistant foam. Dry chemical powder. Carbon dioxide. Not applicable. substance or mixture Contains gas under pressure; may explode if heated. May liberate toxic gases.
 5.1. Extinguishing media Suitable extinguishing media Unsuitable extinguishing media 5.2. Special hazards arising from the Fire hazard Explosion hazard 	 Water fog. Alcohol-resistant foam. Dry chemical powder. Carbon dioxide. Not applicable. substance or mixture Contains gas under pressure; may explode if heated. May liberate toxic gases. Contents under pressure. In case of fire: Stop leak if safe to do so. Do not move the load if exposed to heat. Move containers away from the fire area if this can be done without risk. Cool laterally with water containers exposed to flames, even after the fire is extinguished. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire
 5.1. Extinguishing media Suitable extinguishing media Unsuitable extinguishing media 5.2. Special hazards arising from the Fire hazard Explosion hazard 5.3. Advice for firefighters Firefighting instructions 	 Water fog. Alcohol-resistant foam. Dry chemical powder. Carbon dioxide. Not applicable. substance or mixture Contains gas under pressure; may explode if heated. May liberate toxic gases. Contents under pressure. In case of fire: Stop leak if safe to do so. Do not move the load if exposed to heat. Move containers away from the fire area if this can be done without risk. Cool laterally with water containers exposed to flames, even after the fire is extinguished. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. Face shield. Rubber boots. Gloves. Flame retardant protective clothing. helmet. Appropriate self-contained breathing apparatus may be required.

Protective equipment : Do not enter without an appropriate protective equipment. Advise local authorities if considered necessary. Do not touch spilled material. Ventilate the area thoroughly, especially low lying areas (basements, workpits etc). Extra personal protection: self-contained breathing apparatus. Do not breathe gas/vapor.

(basements, workpits etc). Extra personal protection: self-contained breathing apparatus. Do not breathe gas/vapor. Emergency procedures • Do not breathe gas. Evacuate unnecessary personnel. Keep upwind. Ventilate spillage area. Seal off low-lying areas. 6.1.2. For emergency responders Protective equipment : Equip cleanup crew with proper protection. Breathing apparatus. Do not attempt to take action without suitable protective equipment. Emergency procedures Stop leak if safe to do so. Stop release. Ventilate area. ÷ 6.2. **Environmental precautions**

Avoid discharge to the environment. Do not allow into drains or water courses.

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6.3. Methods and material for containme	5 I
For containment	: Eliminate every possible source of ignition. Prevent the product from entering drains or confined areas. Keep combustibles (wood, paper, oil, etc.) away from spilled material. vapors are heavier than air and may spread along floors. Stop leak if safe to do so. Stop the leak. Turn leaking containers leak-side up to prevent the escape of liquid. Isolate area until gas has dispersed. Collect spillage. Move the cylinder to a safe and open area if the leak is irreparable.
Methods for cleaning up	: Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water. Dispose as hazardous waste. Following product recovery, flush area with water.
6.4. Reference to other sections	
For further information refer to section 13.	
SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Additional hazards when processed	: Do not use if spray button is missing or defective. Pressurized container: Do not pierce or burn, even after use. Keep away from heat, sparks and flame.
Precautions for safe handling	: Avoid prolonged and repeated contact with skin. Intentional misuse by deliberately concentrating and inhaling may be harmful or fatal. Do not breathe gas/vapor/aerosol. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition Do not spray on a naked flame or any incandescent material. Do not smoke while handling product. Ground/bond container and receiving equipment. Do not re-use empty containers. Avoid contact with skin and eyes. Use only outdoors or in a well-ventilated area. Observe normal hygiene standards. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not discharge the waste into the drain. Return of water into the container must be prevented. Keep container tightly closed.
Hygiene measures	: Wash thoroughly after handling.
7.2. Conditions for safe storage, includin	g any incompatibilities
Technical measures	: Pressurized container. Do not puncture, incinerate or crush. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge.
Storage conditions	: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep cool. Protect from sunlight. Store in a well-ventilated place. Do not expose to temperatures exceeding 50 °C/ 122 °F. Refrigerate.
Incompatible products	: Strong oxidizing agents.
Incompatible materials	: Heat sources.
Storage temperature	: <49 °C

SECTION 8: Exposure controls/personal protection

: Aerosol 1.

8.1. **Control parameters**

Storage area

propane (74-98-6)			
ACGIH	ACGIH TWA (ppm)	1000 ppm	
ACGIH	Remark (ACGIH)	Simple Asphyxiant	
OSHA	OSHA PEL (TWA) (mg/m ³)	1800 mg/m³	
OSHA	OSHA PEL (TWA) (ppm)	1000 ppm	
butane (106-97-8)			
ACGIH	ACGIH TWA (ppm)	1000 ppm	
ACGIH	ACGIH STEL (ppm)	1000 ppm	
ACGIH	Remark (ACGIH)	CNS impair	
ethanol (64-17-5)	ethanol (64-17-5)		
ACGIH	ACGIH STEL (ppm)	1000 ppm	
ACGIH	Remark (ACGIH)	URT irr	
OSHA	OSHA PEL (TWA) (mg/m ³)	1900 mg/m³	
OSHA	OSHA PEL (TWA) (ppm)	1000 ppm	

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8.2. Exposure controls	
Appropriate engineering controls	: Ensure good ventilation of the work station.
Personal protective equipment	: Use appropriate personal protective equipment when risk assessment indicates this is necessary. Gloves. Protective goggles. Protective clothing.

Consumer exposure controls Other information : Use good personal hygiene practices.: Do not eat, drink or smoke during use.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties		
Physical state	: Gas	
Appearance	: Aerosol. Liquid.	
Odor	 There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure. Mixture contains one or more component(s) which have the following odour: Alcohol odour. Pleasant odour 	
Odor threshold	: No data available	
pH	: No data available	
pH solution	: 10	
Melting point	: No data available	
Freezing point	: No data available	
Boiling point	: 115.3 °F Estimated	
Flash point	: -20.2 °F Pensky-Martens Closed Cup Supplier estimated	
Relative evaporation rate (butyl acetate=1)	: No data available	
Flammability (solid, gas)	: 1.9 - 19 % Supplier	
Explosion limits	: No data available	
Explosive properties	: Not explosive.	
Oxidizing properties	: Not oxidising.	
Vapor pressure	: 101.3 kPa @70°F estimated	
Relative density	: No data available	
Relative vapor density at 20 °C	: No data available	
Specific gravity / density	: 0.82 g/ml Supplier estimated	
Solubility	: No data available	
Log Pow	: No data available	
Log Kow	: No data available	
Auto-ignition temperature	: No data available	
Decomposition temperature	: No data available	
Viscosity	: No data available	
Viscosity, kinematic	: < 0.00205 m²/s	
Viscosity, dynamic	: No data available	

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization does not occur.

10.4. Conditions to avoid

Aerosol containers are unstable at temperatures above 49°C. Avoid temperatures exceeding the flash point.

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10.5. Incompatible materials

Strong oxidizing agents. Nitrates. Fluorine. Chlorine.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified
ethanol (64-17-5)	
LD50 oral rat	10740 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male/female, Experimental value)
LD50 dermal rabbit	> 16000 mg/kg (Rabbit, Literature study)
LC50 inhalation rat (mg/l)	117 - 125 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male/female, Experimental value)
ATE CLP (oral)	10740 mg/kg body weight
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified.
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: Not classified.
Specific target organ toxicity – repeated exposure	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Allergic skin rash. Dermatitis.
Symptoms/effects after inhalation	: Coughing. Headache.
Symptoms/effects after skin contact	: Skin rash/inflammation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: May cause slight irritation.
Symptoms/effects after ingestion	: Not expected to present a significant ingestion hazard under anticipated conditions of normal use.
Likely routes of exposure	: Skin and eye contact;Inhalation;Ingestion

SECTION 12: Ecological informatio	
12.1. Toxicity	
ethanol (64-17-5)	
LC50 fish 1	14200 mg/l (US EPA, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value)
12.2. Persistence and degradability	
ethanol (64-17-5)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.8 - 0.967 g O₂/g substance
Chemical oxygen demand (COD)	1.7 g O₂/g substance
ThOD	2.1 g O ₂ /g substance
BOD (% of ThOD)	0.43
12.3. Bioaccumulative potential	
ethanol (64-17-5)	
BCF fish 1	1 (Other, 72 h, Cyprinus carpio, Static system, Fresh water, Read-across)
Log Pow	-0.31 (Experimental value)

SECTION 14: Transport information

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ethanol (64-17-5)

Bioaccumulative potential

Not bioaccumulative.

SECTION 13: Disposal considerations		
13.1. Waste treatment methods		
Regional legislation (waste)	: Disposal must be done according to official regulations.	
Waste treatment methods	 Contents under pressure. Do not puncture, incinerate or crush. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container to comply with local/regional/national regulations. 	
Sewage disposal recommendations	: Disposal must be done according to official regulations.	
Product/Packaging disposal recommendations	: Dispose of contents/container to comply with local/regional/national regulations.	

Department of Transportation (DOT)	
Transport document description	: UN1950 Aerosols flammable, (each not exceeding 1 L capacity), 2.1
UN-No.(DOT)	: UN1950
Proper Shipping Name (DOT)	: Aerosols
	flammable, (each not exceeding 1 L capacity)
Class (DOT)	: 2.1 - Class 2.1 - Flammable gas 49 CFR 173.115
Hazard labels (DOT)	: 2.1 - Flammable gas
Marine pollutant	: Yes (IMDG only)
DOT Packaging Non Bulk (49 CFR 173.xxx)	: None
DOT Packaging Bulk (49 CFR 173.xxx)	: None
DOT Special Provisions (49 CFR 172.102)	: N82
DOT Packaging Exceptions (49 CFR 173.xxx)	: 306
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 75 kg
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 150 kg
DOT Vessel Stowage Location	: A
DOT Vessel Stowage Other	: 25 - Shade from radiant heat,87 - Stow "separated from" Class 1 (explosives) except Division 14,126 - Segregation same as for Class 9, miscellaneous hazardous materials
Additional information	
Other information	: When transported by ground, this product may be eligible to be shipped as a Limited Quantity or Consumer Commodity ORM-D utilizing the exception found at 49 CFR 173.306. If any alteration of packaging, product, or mode of transportation is further intended, different shipping names and labeling may be required.
ADR	
No additional information available	

Transport by sea	
UN-No. (IMDG)	: UN1950
Proper Shipping Name (IMDG)	: AEROSOLS
Class (IMDG)	: 2.1 - Flammable gases

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Air transport
UN-No. (IATA)
Proper Shipping Name (IATA)
Class (IATA)

: Aerosols, flammable

: UN1950

: 2.1 - Gases : Flammable

SECTION 15: Regulatory information

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labelling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Warning: Causes substantial, but temporary, eye injury. Do not get in eyes or on clothing. Wear protective eyewear. Thoroughly wash hands after using and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse

SECTION 16: Other information

Training advice

: Normal use of this product shall imply use in accordance with the instructions on the packaging.

Full text of H-phrases:

H220	Extremely flammable gas
H225	Highly flammable liquid and vapour
H280	Contains gas under pressure; may explode if heated
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness

NFPA health hazard	:	1 - Materials that, under emergency conditions, can cause significant irritation.	
NFPA fire hazard	:	3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions.	
NFPA reactivity	:	0 - Material that in themselves are normally stable, even under fire conditions.	



Prepared by: Technical Department

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