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SECTION 1: Identification of the substance/mixture and of the company/ undertaking

· 1.1 Product identifier

· Trade name: Envisol

· Article number: 102660

· 1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

· Application of the substance / the mixture Disinfectant

· 1.3 Details of the supplier of the Safety Data Sheet

· Manufacturer/Supplier:

Theochem Laboratories 7373 Rowlett Park Drive Tampa, FL 33610

Phone: 813-237-6463



ChemTel Inc.

(800)255-3924, +1 (813)248-0585



SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008

Classifications listed also are applicable to the OSHA GHS Hazard Communication Standard (29CFR1910.1200).

H229 Pressurised container: May burst if heated.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Xi; Irritant

R36: Irritating to eyes.

· Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Warning! Pressurised container.

· Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

The product is additionally classified and labelled according to the Globally Harmonized System within the United States (GHS).

The product is classified and labelled according to the CLP regulation.

- · Hazard pictograms Not Regulated
- · Signal word Warning

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· Hazard statements

H229 Pressurised container: May burst if heated.

· Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P251 Pressurized container: Do not pierce or burn, even after use.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

· Additional information:

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.

- · Hazard description:
- · WHMIS-symbols:

A - Compressed gas

D2B - Toxic material causing other toxic effects



· NFPA ratings (scale 0 - 4)



· HMIS-ratings (scale 0 - 4)



· HMIS Long Term Health Hazard Substances

None of the ingredients are listed.

- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- · 3.2 Mixtures
- · Description: Mixture of substances listed below with nonhazardous additions.
- · Dangerous components:

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	(Conto	d. of page 2)
0.10.01	ethanol Xi R36; → F R11 Flam. Liq. 2, H225 Eye Irrit. 2, H319	30-35%
	butane F+ R12 Flam. Gas 1, H220 Press. Gas, H280	10-15%
EINECS: 200-827-9 Index number: 601-003-00-5	propane F+ R12 Flam. Gas 1, H220 Press. Gas, H280	1-5%
CAS: 68391-01-5 EINECS: 269-919-4	Alkyl (C12,C14,C16) Dimethyl Benzyl Ammonium Chloride C R35; Xn R22; Xi R41; N R50 Skin Corr. 1A, H314; Eye Dam. 1, H318 Aquatic Acute 1, H400 Acute Tox. 4, H302	< 1%
CAS: 68956-79-6 EINECS: 273-318-2	Alkyl (C12-18) dimethyl(ethylbenzyl) ammonium chloride C R34; X Xn R22; Xi R37; N R50 Skin Corr. 1B, H314; Eye Dam. 1, H318 Aquatic Acute 1, H400 Acute Tox. 4, H302; STOT SE 3, H335	< 1%

· Additional information: For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- · General information: Take affected persons out into the fresh air.
- · After inhalation:

Supply fresh air; consult doctor in case of complaints.

Provide oxygen treatment if affected person has difficulty breathing.

· After skin contact:

Immediately wash with water and soap and rinse thoroughly.

In cases of frostbite, rinse with plenty of water. Do not remove clothing.

If skin irritation continues, consult a doctor.

· After eye contact:

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· After swallowing:

Unlikely route of exposure.

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

· 4.2 Most important symptoms and effects, both acute and delayed

Headache

Coughing, dizziness, if inhaled.

Nausea

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Slight irritant effect on eyes.

· Hazards

Condition may deteriorate with alcohol consumption.

May be harmful if inhaled.

· 4.3 Indication of any immediate medical attention and special treatment needed

Treat frost-bitten areas appropriately.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- · For safety reasons unsuitable extinguishing agents: None.
- · 5.2 Special hazards arising from the substance or mixture

Danger of receptacles bursting because of high vapour pressure when heated.

Formation of toxic gases is possible during heating or in case of fire.

- · 5.3 Advice for firefighters
- · Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

· Additional information

Leaking gas fire: Do not extinguish, unless leak can be stopped safely.

Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

If containers are leaking, use respiratory protective device against the effects of fumes/dust/aerosol.

- 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · 6.3 Methods and material for containment and cleaning up:

Pick up manually.

Send for recovery or disposal in suitable receptacles.

Dispose contaminated material as waste according to item 13.

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Keep away from heat and direct sunlight.

Use only in well ventilated areas.

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Store in cool, dry conditions with good ventilation.

Information about fire - and explosion protection:

Protect from heat.

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.

Do not spray on flame or other ignition soure; no smoking.

- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles:

Observe official regulations on storing packagings with pressurised containers.

Avoid storage near extreme heat, ignition sources or open flame.

· Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidising agents.

· Further information about storage conditions:

Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting. Protect from frost.

· 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- · Additional information about design of technical facilities: No further data; see item 7.
- · 8.1 Control parameters

· Ingredients v	Ingredients with limit values that require monitoring at the workplace:		
64-17-5 ethanol			
PEL (USA)	Long-term value: 1900 mg/m³, 1000 ppm		
REL (USA)	Long-term value: 1900 mg/m³, 1000 ppm		
TLV (USA)	Short-term value: 1880 mg/m³, 1000 ppm		
EL (Canada)	Short-term value: 1000 ppm		
EV (Canada)	Long-term value: 1,900 mg/m³, 1,000 ppm		
106-97-8 butane			
REL (USA)	Long-term value: 1900 mg/m³, 800 ppm		
TLV (USA)	Short-term value: 2370 mg/m³, 1000 ppm		
EL (Canada)	Short-term value: 750 ppm Long-term value: 600 ppm		
EV (Canada)	Long-term value: 800 ppm		
74-98-6 propane			
PEL (USA)	Long-term value: 1800 mg/m³, 1000 ppm		
REL (USA)	Long-term value: 1800 mg/m³, 1000 ppm		
TLV (USA)	refer to Appendix F		
EL (Canada)	Long-term value: 1000 ppm		
	(Contd. on page 6)		

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EV (Canada) Long-term value: 1,000 ppm

- · **DNELs** No further relevant information available.
- PNECs No further relevant information available.
- · Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes.

Avoid close or long term contact with the skin.

Use only in well ventilated areas.

· Respiratory protection:

Not required under normal conditions of use.

Use suitable respiratory protective device in case of insufficient ventilation.

For spills, respiratory protection may be advisable.

NIOSH or EN approved organic vapor respirator equipped with a dust/mist prefilter should be used.

· Protection of hands:

Wear protective gloves to handle contents of damaged or leaking units.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Safety glasses

· Body protection:

Not required under normal conditions of use.

Protection may be required for spills.

· Limitation and supervision of exposure into the environment

No further relevant information available.

· Risk management measures

See Section 7 for additional information.

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No further relevant information available.

(Contd. of page 6)

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

General Information

· Appearance:

Form:
Colour:
Odour:
Odour threshold:

Pleasant
Not determined.

pH-value:

Aerosol
Yellow
Pleasant
Not determined.

· Change in condition

Melting point/Melting range: Not applicable, as aerosol.

Boiling point/Boiling range: 212 °F / 100 °C

• **Flash point:** Not applicable, as aerosol.

Flammability (solid, gaseous): Not applicable.
 Auto/Self-ignition temperature: Not determined.
 Decomposition temperature: Not determined.

· **Self-igniting:** Product is not self-igniting.

· Danger of explosion: Not determined.

· Explosion limits:

Lower:
Upper:
Not determined.
Not determined.

· Vapour pressure:
Not determined.

· Density:
1,0 g/cm³

Relative density
 Vapour density
 Evaporation rate
 Not determined.
 Not determined.
 1 (Butyl acetate = 1)

· Solubility in / Miscibility with

water: Fully miscible.Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

Dynamic: Not determined. **Kinematic:** Not determined.

· Solvent content:

VOC content: 51,32 %

• 9.2 Other information No further relevant information available.

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· Additional information

Flame Projection is 6-8 inches without flashback

SECTION 10: Stability and reactivity

- · 10.1 Reactivity
- · 10.2 Chemical stability
- · Thermal decomposition / conditions to be avoided:

Danger of receptacles bursting because of high vapour pressure when heated.

· 10.3 Possibility of hazardous reactions

Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomised. Reacts with oxidising agents.

Toxic fumes may be released if heated above the decomposition point.

- 10.4 Conditions to avoid Excessive heat.
- 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products:

Carbon monoxide and carbon dioxide

Chlorine

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity:
- · Primary irritant effect:
- · on the skin: No irritant effect.
- · on the eye: Slight irritant effect on eyes.
- · Sensitisation: No sensitising effects known.
- · Additional toxicological information:

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: The product contains materials that are harmful to the environment.
- 12.2 Persistence and degradability No further relevant information available.
- $\cdot\,\textbf{12.3 Bioaccumulative potential}\,\,\text{No further relevant information available}.$
- 12.4 Mobility in soil No further relevant information available.
- **Ecotoxical effects:**
- · Remark: Toxic for algae
- · Additional ecological information:
- · General notes:

This statement was deduced from the properties of the single components.

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

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Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Due to available data on eliminability/decomposition and bioaccumulation potential a prolonged damage of the environment is unlikely.

- 12.5 Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · **vPvB**: Not applicable.
- 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- Recommendation

Contact waste processors for recycling information.

Must not be disposed together with household garbage. Do not allow product to reach sewage system. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.

- · Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.
- · Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- · 14.1 UN-Number
- · DOT. ADR. IMDG. IATA UN1950
- · 14.2 UN proper shipping name



Limited Quantity for packages less than 30 kg (66 lb) and inner packagings less than 1 L (0.3 gal).

• **DOT** Aerosols

· ADR 1950 AEROSOLS AEROSOLS

· IATA AEROSOLS, non-flammable

- · 14.3 Transport hazard class(es)
- · DOT



· Class 2 Gases.

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Trade name: Envisol (Contd. of page 9) · Label 2.2 · ADR 2 5A Gases. · Class · Label 2.2 · IMDG · Class 2 Gases. · Label 2.2 · IATA 2.2 · Class · Label 2.2 · 14.4 Packing group · DOT, ADR, IMDG, IATA Not Regulated · 14.5 Environmental hazards: · Marine pollutant: No · 14.6 Special precautions for user Warning: Gases. · Danger code (Kemler): · EMS Number: F-D,S-U · 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable. · Transport/Additional information: · ADR · Limited quantities (LQ) 1L Excepted quantities (EQ) Code: E0 Not permitted as Excepted Quantity · Transport category

Ε

1L

Code: E0

Not permitted as Excepted Quantity

· Tunnel restriction code

· Limited quantities (LQ)

· Excepted quantities (EQ)

· UN "Model Regulation":

· IMDG

UN1950, AEROSOLS, 2.2

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SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · United States (USA)
- · SARA
- · Section 355 (extremely hazardous substances):

None of the ingredients are listed.

- Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

- · Proposition 65 (California):
- · Chemicals known to cause cancer:

Ethanol - listing refers specifically to alcoholic beverage consumption and is not applicable for product.

64-17-5 ethanol

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity:

Ethanol - listing refers specifically to alcoholic beverage consumption and is not applicable for product.

64-17-5 ethanol

- · Carcinogenic Categories
- · EPA (Environmental Protection Agency)

None of the ingredients are listed.

· Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

EPA Product Registration: 498-179-9367.

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling 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:

KEEP OUT OF REACH OF CHILDREN

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION

May cause eye irritation. Avoid contact with the eyes and skin. Avoid breathing of spray mist.

Avoid contamination of foodstuff

FIRST AID

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lens, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

PHYSICAL OR CHEMICAL HAZARDS

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FLAMMABLE. Contents under pressure. DO NOT PUNCTURE. Do not use or store near heat or open flame. Exposure to temperatures above 120°F may cause bursting. Never throw container into fire or incinerator. Do not spray on varnished, painted or plastic surfaces.

STORAGE & DISPOSAL

STORAGE: Store in a cool, dry area away from heat or open flame.

DISPOSAL: Do not reuse empty container. This container may be recycled in one of the limited number of aerosol recycling centers in the country. Before recycling, empty the can by using the product according to the label. DO NOT PUNCTURE! If recycling is not available, wrap the container and discard in the trash.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

64-17-5 ethanol

1

· TLV (Threshold Limit Value established by ACGIH)

64-17-5 ethanol

A3

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients are listed.

- · Canada
- · Canadian Domestic Substances List (DSL)

All ingredients are listed.

· Canadian Ingredient Disclosure list (limit 0.1%)

64-17-5 ethanol

· Canadian Ingredient Disclosure list (limit 1%)

106-97-8 butane

· Other regulations, limitations and prohibitive regulations

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

· Substances of very high concern (SVHC) according to REACH, Article 57

None of the ingredients are listed.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H220 Extremely flammable gas.

H225 Highly flammable liquid and vapour.

H280 Contains gas under pressure; may explode if heated.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

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H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H400 Very toxic to aquatic life.

R11 Highly flammable.

R12 Extremely flammable.

R22 Harmful if swallowed.

R34 Causes burns.

R35 Causes severe burns.

R36 Irritating to eyes.

R37 Irritating to respiratory system.

R41 Risk of serious damage to eyes.

R50 Very toxic to aquatic organisms.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

VOC: Volatile Organic Compounds (USA, EU)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

Flam. Gas 1: Flammable gases, Hazard Category 1

Press. Gas: Gases under pressure: Compressed gas Flam. Liq. 2: Flammable liquids, Hazard Category 2

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A

Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1

Sources

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