

Safety Data Sheet (SDS) for: **Sanifectant**

SECTION 1: Identification of the substance/mixture and of the supplier

Product Name/Identifier:	Sanifectant
Alternative Names/Identifiers:	Product Code: #4-028
Product Appearance:	Light blue liquid with a mild odour.
Uses of Product:	Embalming spray for surface preservation as well as injectable treatment for tissue gas.
Restrictions on Use of Product:	This embalming chemical is only for use by licensed embalming professionals within a preparation room. If you are not a licensed embalming professional, DO NOT USE/HANDLE THIS PRODUCT.
Manufacturer/Supplier details:	H.S. Eckels & Company (Canada) Limited 23 Admiral Place Guelph, Ontario, N1G 4N4 Tel: 1.800.265.8350
EMERGENCY CONTACT NUMBER:	613.996.6666 (CANUTEC) (24 hours/day line for use in case of large spills/emergencies)

SECTION 2: Hazards identification

Hazard Classifications:	Flammable liquids: Category 4, H227 (Combustible liquid.) Acute toxicity, oral: Category 5, H303 (May be harmful if swallowed.) Serious eye damage/irritation: Category 2B, H320 (Causes eye irritation.)
Hazard Pictograms:	No pictograms apply.
Signal Word:	Warning
Hazard Statements:	H227: Combustible liquid. H303: May be harmful if swallowed. H320: Causes eye irritation.
Precautionary Statements:	P210: Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. P264: Wash hands thoroughly after handling. P280: Wear protective gloves, clothing, and eye protection/face protection when using. P302 + P352: IF ON SKIN: Wash with plenty of soap and water. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313: If eye irritation persists: get medical advice/attention.

P301 + 311: IF SWALLOWED: Call a POISON CENTER or doctor/physician.

P370 + P378: In case of fire: Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide for extinction.

P403: Store in a well-ventilated place.

P405: Store locked up.

P501: Dispose of contents/container to a licensed waste disposal facility.

Other Hazard Information:

This embalming chemical is only for use by licensed embalming professionals within a preparation room. If you are not a licensed embalming professional, DO NOT USE/HANDLE THIS PRODUCT.

SECTION 3: Composition/information on ingredients

Product Composition (Sorted by Concentration in % Weight):

Chemical Name: Methanol

CAS Number: 67-56-1 – **EC Number:** 200-659-6 – **Concentration (% Weight):** 1.0% – 5.0%

Common Names / Synonyms: methyl alcohol, methylic alcohol, wood alcohol, wood spirit

Chemical Name: Benzalkonium chloride

CAS Number: 68424-85-1 – **EC Number:** 264-151-6 – **Concentration (% Weight):** 0.1% – 1.0%

Common Names/Synonyms: N-alkyl (c12-c16) n,n dimethylbenzylammonium chloride, alkyl dimethylbenzyl ammonium

Note: exact concentrations and information on non-hazardous ingredients have been withheld as a trade secret.

SECTION 4: First-aid measures

General first aid measures: Always keep a copy of this safety data sheet available for any medical personnel.

First aid measures after inhalation: Move victim to fresh air or a well-ventilated area. Obtain medical attention if the victim feels unwell.

First aid measures after ingestion: If the victim is conscious, have them rinse their mouth. Obtain medical attention.

First aid measures after skin contact: Wash immediately and thoroughly with soap and water. If irritation develops, obtain medical attention.

First aid measures after eye contact: Flush eyes with lukewarm water for at least 15 minutes. Remove contact lenses if possible. If irritation develops, obtain medical attention.

Most important symptoms/effects: Small exposures may result in irritation. Ingestion of an unusually large quantity (multiple bottles) may result in temporary or permanent vision loss as well as death.

Immediate medical attention and special treatment needed: Medical attention is normally not required in cases of exposure. Ingestion of an unusually large quantity (multiple bottles) may result in methanol poisoning which is an emergency and can be treated at a hospital with fomepizole, or if unavailable, ethanol.

SECTION 5: Fire-fighting measures

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

Unsuitable extinguishing media: No known unsuitable extinguishing media.

Specific hazards from product: Fire conditions will result in the formation of carbon oxides (carbon dioxide, carbon monoxide).

Firefighting precautions: Combustible liquid.

Protection equipment during firefighting: Fire fighters must be fully-trained and wear full protective clothing including an approved, self-contained breathing apparatus which supplies a positive air pressure within a full face-piece mask.

SECTION 6: Accidental release measures

General precautions:	If a spill occurs, ventilate the area and remove any potential ignition sources.
Personal precautions:	Any personnel not involved in the cleanup of any spills or do not have appropriate protective equipment should leave the area.
Protective equipment:	Make sure to wear appropriate gloves, clothing, and eye protection/face protection such as protective goggles and/or a face shield when using, as well as when cleaning up spills. If the area is not well-ventilated, use respiratory protection.
Emergency procedures:	Evacuate all personnel not involved in the cleanup from the spill area.
Environmental precautions:	Prevent spilled product from leaking into drains or waterways by soaking up spilled product with an inert, non-flammable spill absorber.
Cleanup guidelines and materials:	Block spills from entering drains and waterways with sand or an inert, non-flammable spill absorber. Do not use combustible materials such as sawdust to clean up spills. Spills must be disposed as hazardous goods in the same manner as waste product.

SECTION 7: Handling and storage

Precautions for safe handling:	Avoid splashing when handling. Always wear appropriate personal protective equipment such as gloves, clothing, and eye protection/face protection such as protective goggles and/or a face shield when using, as well as when cleaning up spills. If the area is not well-ventilated, use respiratory protection.
Hygiene measures:	Do not allow to come into contact with skin or eyes. Avoid inhalation of vapors. Never eat, drink or smoke while using the product. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Do not wear contaminated clothing in any dining areas.
Technical measures:	Provide an emergency wash station for the eyes, and a source of water near the point of use.
Storage conditions:	Keep container tightly closed in a cool, dry, and well-ventilated place. Keep containers tightly closed and upright to prevent leakage. Make sure the storage area's floors are impervious to chemicals.
Packaging materials:	For safety reasons, do not transfer the contents out of its original bottle. Keep stored only in the original bottle.

SECTION 8: Exposure controls/personal protection

Exposure Limits/Control Parameters

Format: [Regulation] – [Values] – [Control Parameters] – [Notes]

Glossary:	TLV = Threshold limit value / VLE = Valeur limite d'exposition (French)
	TWA = Time-weighted average / MPT = Moyenne pondérée dans le temps (French)
	TLV-TWA = Threshold Limit Value-Time-weighted average / VLE-MPT = Valeur limite d'exposition moyenne pondérée dans le temps (French)
	TWAEV = Time-weighted average exposure value / VEMP = Valeur d'exposition moyenne pondérée (French)
	STEV = Short term exposure value / VECD = Valeur d'exposition de courte durée (French)
	STEL = Short term exposure limit / LECD = Limite d'exposition de courte durée (French)
	OEL = Occupational exposure limit / LEMT = Limite d'exposition en milieu de travail (French)

IDLH = Immediately dangerous to life or health / DIVS = Danger immédiat pour la vie ou santé

Methanol – CAS Number: 67–56–1 – EC Number: 200–659–6

- Canada, Alberta, Occupational Health and Safety Code (Table 2: OEL) – TWA – 200 ppm, 262 mg/m³ – Readily absorbed through intact skin.
- Canada, Alberta, Occupational Health and Safety Code (Table 2: OEL) – STEL – 250 ppm, 328 mg/m³ – Readily absorbed through intact skin.
- Canada, British Columbia OEL – TWA – 200 ppm – Contributes significantly to the overall exposure by skin route.
- Canada, British Columbia OEL – STEL – 250 ppm – Contributes significantly to the overall exposure by skin route.
- Canada, Québec, Regulation respecting occupational health and safety (Schedule 1, Part 1: Permissible exposure values for airborne contaminants – TWAEV – 200 ppm, 262 mg/m³ – Skin contact.
- Canada, Québec, Regulation respecting occupational health and safety (Schedule 1, Part 1: Permissible exposure values for airborne contaminants – TWAEV – 200 ppm, 262 mg/m³ – Skin contact.
- USA, ACGIH Threshold Limit Values – TWA – 200 ppm
- USA, ACGIH Threshold Limit Values – STEL – 250 ppm

Benzalkonium chloride – CAS Number: 68424–85–1 – EC Number: 264–151–6

- No data available.

Engineering controls:

Avoid all contact with skin, eyes, and clothing. Wash and dry hands immediately after handling the product, as well as before taking any breaks as an added precaution.

Personal Protective Equipment

Hand protection: Always handle while wearing chemical resistant gloves. Inspect gloves prior to use. Use proper glove removal technique (without touching the glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and regulations. Always wash and dry hands after use.

Eye protection: Use appropriate eye protection or face shield when using this product.

Skin and body protection: Wear appropriate protective clothing when using this product.

Respiratory protection: If the area is not well-ventilated, use respiratory protection such as a respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Other information:

Make sure to wear protective equipment that conforms to appropriate government standards such as NIOSH (US) or CEN (EU).

SECTION 9: Physical and chemical properties

Appearance:	Light blue liquid
Odour:	Mild odour
Odour threshold:	No data available.
pH:	8.5 - 9.5
Melting/Freezing point:	0 °C
Initial boiling point:	93 °C
Boiling range:	No data available.
Flash point:	90.5 °C
Evaporation rate:	No data available.

Flammability:	Combustible liquid.
Upper and lower flammability or explosive limits:	No data available.
Vapour pressure:	No data available.
Vapour density:	No data available.
Relative density:	No data available.
Partition coefficient – n-octanol/water:	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity, kinematic:	No data available.
Viscosity, dynamic:	No data available.
Solubility:	Soluble in water.

SECTION 10: Stability and reactivity

Reactivity:	Not known to be reactive.
Chemical Stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	No data available.
Conditions to avoid:	Do not use or store this product in a poorly ventilated area.
Incompatible materials:	Strong alkalis, acids, and oxidizing agents.
Hazardous decomposition products:	Fire conditions will result in the formation of carbon oxides (carbon dioxide, carbon monoxide).

SECTION 11: Toxicological information

Note: Methanol is an unusual chemical due to it being significantly less toxic to most experimental animals than humans, because most animal species metabolize methanol differently. **The following toxicity values are for pure methanol:** Inhalation, rabbit: LC50 = 81000 mg/m³/14H

Inhalation, rat: LC50 = 64000 ppm/4H

Oral, mouse: LD50 = 7300 mg/kg

Oral, rabbit: LD50 = 14200 mg/kg

Oral, rat: LD50 = 5600 mg/kg

Skin, rabbit: LD50 = 15800 mg/kg

Draize test, rabbit, skin: 20 mg/24H (moderate)

Draize test, rabbit, eye: 40 mg (moderate)

Draize test, rabbit, eye: 100 mg/24H (moderate)

Human LDLo Oral: 143 mg/kg

Human TCLo Inhalation: 300 ppm caused visual field changes & headache

Monkey LDLo Skin: 393 mg/kg

Toxicological information for this product:

Most likely routes of exposure: Skin contact is the most likely route, followed by eye contact. Wear appropriate safety equipment when using this product to minimize the risk of exposure.

Acute toxicity:

Inhalation: Human, Inhalation TCLo = 30000 ppm (calculated Acute Toxicity Estimate)

Skin contact: Monkey, Skin LDLo = 39216 mg/kg (calculated Acute Toxicity Estimate)

Ingestion:	Human, Oral LDLo = 7143 mg/kg (calculated Acute Toxicity Estimate)
Skin corrosion/irritation:	Prolonged skin contact may cause temporary irritation.
Serious eye damage/irritation:	Eye contact will cause eye irritation.
Respiratory or skin sensitization:	Not a respiratory or skin sensitizer.
Germ cell mutagenicity:	No data available to suggest this product is mutagenic.
Carcinogenicity:	No data available to suggest this product is carcinogenic.
Reproductive toxicity:	This product is not expected to have any effects to fertility or fetal development.
Specific target organ toxicity (single exposure):	As little as 10 mL of pure methanol when drunk is metabolized into formic acid, which can cause permanent blindness by destruction of the optic nerve. However, the amount of methanol in this product is so low that one would need to ingest several bottles to consume this amount (an extremely unlikely situation), and so this product is not classified to be a target organ toxicity hazard.
Specific target organ toxicity (repeated or single large exposure):	As little as 10 mL of pure methanol when drunk is metabolized into formic acid, which can cause permanent blindness by destruction of the optic nerve. However, the amount of methanol in this product is so low that one would need to ingest several bottles to consume this amount (an extremely unlikely situation), and so this product is not classified to be a target organ toxicity hazard.
Aspiration hazard:	No data available.
Potential adverse human health effects and symptoms:	
Symptoms after inhalation:	Dizziness, fatigue, nausea.
Symptoms after ingestion:	Abdominal pain, nausea. Potential for corrosive damage to internal mucosa as per known case reports of ingestion of <50 mL to 240 mL of 10% solutions of benzalkonium chloride (no known case reports exist for cases of ingestion of solutions containing 0.1% – 1.0%). Abnormally large doses (drinking several bottles at once) may result in temporary visual impairment, permanent visual impairment, or possibly even death due to methanol poisoning.
Symptoms after skin contact:	May cause mild skin irritation if not washed off after skin contact.
Symptoms after eye contact:	Causes eye irritation.
Delayed and immediate effects:	No data available.
Chronic effects:	No data available.

SECTION 12: Ecological information

Ecotoxicity:	This product is not considered to be ecologically toxic.
Persistence and degradability:	This product is considered to be readily biodegradable.
Bioaccumulative potential:	This product is not considered to be bioaccumulative.
Mobility in soil:	This product is considered to have low soil mobility.
Other adverse effects:	Note that methanol levels over 0.1% may be toxic to sewage bacteria.

SECTION 13: Disposal considerations

Safe handling for disposal:	When disposing of empty open containers, make sure to wear gloves in case there are any hazardous residues on the outside of the container.
Waste treatment methods:	This product and its container must be handled and disposed of as dangerous goods, in accordance with any applicable government regulations. Empty containers should be rinsed thoroughly prior to disposal, and the label crossed out to indicate the container is empty. DO NOT dump waste product into sewer systems, drains, into the ground, or into streams/lakes/open water. All waste must be disposed of and treated at a licensed and approved hazardous waste disposal facility.

SECTION 14: Transport information

Not classified as a dangerous goods for transportation under TDG, IMDG, IATA, or DOT regulations.

SECTION 15: Regulatory information

This sheet has been prepared in accordance with the Globally Harmonized System (GHS) of Classification of and Labelling of Chemicals and to our knowledge and best ability contains all necessary and relevant safety information, including listing of all hazardous components in accordance with Canadian and United States inventory regulations, and conforms to Canada's *Hazardous Products Act* and the pursuant *Hazardous Products Regulations*.

Substances in this product which apply to the following inventories/lists:

Canada NPRI (National Pollutant Release Inventory): Methanol

CEPA (Canadian Environmental Protection Act Registry) Toxic substances list: To the best of our knowledge, none of the substances in this product appear on this list.

List of extremely hazardous substances (U.S. Emergency Planning and Community Right-to-Know Act (42 U.S.C. 11002), appendix to section 40 C.F.R. 355): To the best of our knowledge, none of the substances in this product appear on this list.

SECTION 16: Other information

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