

**Section 1: Identification**

- (a) Mortisan
- (b) Isopropanol Solution
- (c) For use by professional licensed embalmers only
- (d) Manufacturer: TNPC – 4722 Bronze Way – Dallas, TX 75236 – 214.333.4230
- (e) Privately labeled for & distributed by: Pierce Companies – 4722 Bronze Way – Dallas, TX 75236 – 214.333.4230
- (f) Emergency Phone Number: 800.424.9300

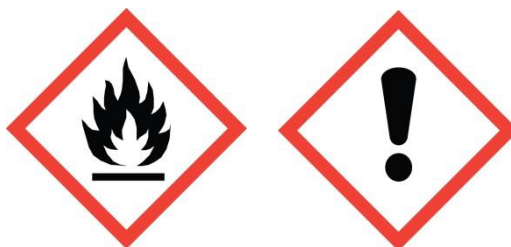
**Section 2: Hazard Identification**

This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200

Flammable liquids – Category 2

Eye irritation – Category 2A

Specific target organ toxicity – single exposure – Category 3



Signal word: **DANGER!**

**Hazards**

Highly flammable liquid and vapour.

Causes serious eye irritation.

May cause drowsiness or dizziness.

**Precautionary statements**

**Prevention**

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

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash skin thoroughly after handling,

Use only outdoors or in a well-ventilated area.

Wear protective gloves/eye protection/face protection.

**Response**

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: get medical advice/attention.

IN CASE OF FIRE: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

## STORAGE

Store in a well-ventilated place. Keep container tightly closed.

Store in a well-ventilated place. Keep cool.

Store locked up.

## Disposal

Dispose of contents/container to an approved waste disposal plant.

## Other hazards

No data available

## Section 3: Composition/Information on Ingredients

CHEMICAL NAME	CAS NUMBER	%	Trade Secret Information: Exact % of concentration is withheld to protect Trade Secret Information. Ranges are given in accordance with CFR 29 1910.1200(i), Appendix E
Isopropyl Alcohol	67-63-0	45 – 50	
Benzethonium Chloride	121-54-00	2 – 5	

## Section 4: First-Aid Measures

### Description of first aid measures

**General advice:** First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

**Inhalation:** Move person to fresh air. If not breathing, give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask, etc.). If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

**Skin contact:** Wash off with plenty of water.

**Eye contact:** Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.

**Ingestion:** Do not induce vomiting. Call a physician and/or transport to emergency facility immediately .

**Most important symptoms and effects, both acute and delayed:** Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology information.

### Indication of any immediate medical attention and special treatment needed

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**Notes to physician:** Maintain adequate ventilation and oxygenation of the patient. Because rapid absorption may occur through the lungs if aspirated and cause systemic effects, the decision of whether to induce vomiting or not should be made by a physician. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Hemodialysis may be of benefit if substantial amounts have been ingested and the patient is showing signs of intoxication. Consider hemodialysis for patients with persistent hypotension or coma unresponsive to standard therapy (isopropanol levels > 400-500 mg/dl). (Goldfrank 1998, King et al, 1970). No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Skin contact may aggravate preexisting dermatitis.

## **Section 5: Fire-fighting Measures**

**NFPA:** Health: 2 Flammability: 3 Reactivity: 0

**Suitable extinguishing media:** Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

**Unsuitable extinguishing media:** Do not use direct water stream. Straight or direct water streams may not be effective to extinguish fire.

### **Special hazards arising from the substance or mixture**

**Hazardous combustion products:** During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide, Carbon dioxide.

**Unusual Fire and Explosion Hazards:** Container may vent and/or rupture due to fire. When product is stored in closed containers, a flammable atmosphere can develop. Electrically ground and bond all equipment. Flammable mixtures of this product are readily ignited even by static discharge. Vapors are heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flash back may occur. Flammable mixtures may exist within the vapor space of containers at room temperature. Flammable concentrations of vapor can accumulate at temperatures above flash point; see Section 9.

### **Advice for firefighters**

**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry. Stay upwind. Keep out of low areas where gasses (fumes) can accumulate. Water may not be effective in extinguishing fire. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. Eliminate ignition sources. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Use caution and test if material is burning before entering area. Material burns with invisible flame.

**Special protective equipment for firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

## **Section 6: Accidental Release Measures**

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**Personal precautions, protective equipment and emergency procedures:** Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to section 7, Handling, for additional precautionary measures. Keep personnel out of low areas. Keep upwind of spill. Ventilate area of leak or spill. No smoking in area. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Vapor explosion hazard. Keep out of sewers. For large spills, warn public of downwind explosion hazard. Check area with combustible gas detector before reentering area. Ground and bond all containers and handling equipment. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

**Environmental precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

**Methods and materials for containment and cleaning up:** Contain spilled material if possible. Ground and bond all containers and handling equipment. Pump with explosion-proof equipment. If available, use foam to smother or suppress. Collect in suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

## Section 7: Handling and Storage

**Precautions for safe handling:** Keep away from heat, sparks and flame. Avoid contact with eyes. Avoid breathing vapor. Wash thoroughly after handling. Keep container closed. Use only with adequate ventilation. No smoke, open flames or sources of ignition in handling and storage area. Electrically bond and ground all containers and equipment before transfer or use of material. Use of non-sparking or explosion-proof equipment may be necessary, depending upon the type of operation. Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers. Vapors are heavier than air and may travel a long distance and accumulate in low lying area. Ignition and/or flash back may occur. Never use air pressure for transferring product. See Section 8, Exposure Controls and Personal Protection.

**Conditions for safe storage:** Minimize sources of ignition, such as static build-up, heat, spark or flame. Keep container closed. Flammable mixtures may exist within the vapor space of containers at room temperature.

### Storage stability

**Shelf Life: Use within 24 months**

## Section 8: Exposure Controls/Personal Protection

### Control parameters

Exposure limits are listed below, if they exist

Component	Regulation	Type of Listing	Value / Notation
Isopropanol	ACGIH	TWA	200 ppm
	ACGIH	STEL	400 ppm
	OSAH Z-1	TWA	980 mg/m <sup>3</sup> 400 ppm

### Exposure controls

**Engineering controls:** Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

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## Individual protection measures

**Eye/face protection:** Use chemical goggles. If exposure causes eye discomfort, use a full-face respirator.

### Skin protection

**Hand protection:** Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Examples of preferred glove barrier materials include: Chlorinated polyethylene. Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl chloride ("PVC" or "vinyl"). Examples of acceptable glove barrier materials include: Polyvinyl alcohol ("PVA"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

**Other protection:** Wear clean, body-covering clothing.

**Respiratory protection:** Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use an approved respirator. Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the material. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus. In confined or poorly ventilated areas, use an approved self-contained breathing apparatus or positive pressure air line with auxiliary self-contained air supply.

The following should be effective types of air-purifying respirators: Organic vapor cartridge.

## Section 9: Physical and chemical properties

**FLASH POINT:** >78°F (ASTM D93)

**BOILING POINT:** 187°F

**EVAPORATION RATE (BUTYL ACETATE=1):** >1

**MELTING POINT:** No information

**pH:** 7.40

**SOLUBILITY IN WATER:** Soluble in water

**APPEARANCE AND ODOR INFORMATION:** Green liquid with light aromatic odor

**FLAMMABLE LIMITS:** LEL=2% UEL=12.7%

**SPECIFIC GRAVITY (WATER=1):** .971 g/ml @ 70 °F

**VAPOR DENSITY (AIR=1):** 2.1

**VAPOR PRESSURE (mm HG):** 44.44 mm Hg @ 71°F

**% VOLATILE BY WEIGHT:** 26.29%

## Section 10: Stability and Reactivity

UNSTABLE: NO

STABLE: YES

**CONDITIONS TO AVOID:** Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Avoid static discharge

**INCOMPATIBILITY (MATERIALS TO AVOID):** Strong oxidizing agents, caustics, strong alkalies and inorganic acids.

**HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:** carbon dioxide, carbon monoxide

**HAZARDOUS POLYMERIZATION:** Will not occur

**CONDITIONS TO AVOID FOR POLYMERIZATION:** Not applicable

## Section 11: Toxicological Information

Toxicological information on this product or its components appear in this section when such data is available.

### Acute toxicity

#### Acute oral toxicity

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Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. May cause central nervous system depression. May cause nausea and vomiting. Signs and symptoms of excessive exposure may include: Facial flushing. Low blood pressure. Irregular heartbeats.

LD50, Rat, 5,840 mg/kg OECD 401 or equivalent  
Lethal Dose, Humans, 100 ml Estimated.

### **Acute dermal toxicity**

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

LD50, Rabbit, > 12,800 mg/kg

### **Acute inhalation toxicity**

With good ventilation, single exposure is not likely to be hazardous. In poorly ventilated areas, vapors or mists may accumulate and cause respiratory irritation. Prolonged excessive exposure may cause adverse effects. Excessive exposure (400 ppm) to isopropanol may cause eye, nose and throat irritation. Incoordination, confusion, hypotension, hypothermia, circulatory collapse, respiratory arrest and death may follow a longer duration or higher levels. Observations in animals may include middle ear lining damage upon exposure to vapors of isopropanol. However, the relevance of this to humans is unknown.

LC50, Rat, male and female, 6 Hour, vapour, > 10000 ppm

### **Skin corrosion/irritation**

Prolonged exposure not likely to cause significant skin irritation.  
May cause drying and flaking of the skin.

### **Serious eye damage / eye irritation**

May cause pain disproportionate to the level of irritation to eye tissues.  
May cause moderate eye irritation.  
May cause moderate corneal injury.  
Vapor may cause eye irritation experienced as mild discomfort and redness.  
Vapor may cause lacrimation (tears).

### **Sensitization**

Did not demonstrate the potential for contact allergy in mice.  
Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:  
No relevant data found.

### **Specific Target Organ Systematic Toxicity (Single Exposure)**

May cause drowsiness or dizziness.  
Route of Exposure: Ingestion  
Target Organs: Central nervous system

### **Specific Target Organ Systemic Toxicity (Repeated Exposure)**

In animals, effects have been reported on the following organs:

Kidney

Liver

Kidney effects have been observed in male rats. These effects are believed to be species specific and unlikely to occur in humans.

Observations in animals include:

Lethargy.

### **Carcinogenicity**

Did not cause cancer in laboratory animals.

### **Teratogenicity**

Isopropanol has been toxic to the fetus in laboratory animals at doses toxic to the mother.

### **Reproductive toxicity**

In animal studies, did not interfere with reproduction. In animal studies, did not interfere with fertility.

### **Mutagenicity**

In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

### **Aspiration Hazard**

May be harmful if swallowed and enters airways.

## **Section 12: Ecological Information**

*Ecotoxicological information on this product or its components appear in this section when such data is available.*

### **Toxicity**

#### **Acute toxicity to fish**

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 > 100 mg/L in the most sensitive species tested).

LC50, Pimephales promelas (fathead minnow), flow-through test, 96 Hour, 9,640 mg/l, OECD Test Guideline 203 or equivalent

#### **Acute toxicity to aquatic invertebrates**

LC50, Daphnia magna (Water flea), static test, 24 hour, > 1,000 mg/l, OECD Test Guideline 202 or Equivalent

#### **Acute toxicity to algae/aquatic plants**

NOEC, alga Scenedesmus sp., static test, 7 d, Growth inhibition (cell density reduction), 1,800 mg/l

ErC50, alga Scenedesmus sp., static test, 72 Hour, Growth rate inhibition, > 1,000 mg/l

#### **Chronic aquatic toxicity**

##### **Chronic toxicity to aquatic invertebrates**

NOEC, Daphnia magna (Water flea), semi-static test, 21 d, 30 mg/l

### **Persistence and degradability**

**Biodegradability:** Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

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10 day Window: Pass  
**Biodegradation:** 95%  
**Exposure time:** 21 d  
**Method:** OECD Test Guideline 301E or Equivalent  
10 day Window: Pass  
**Biodegradation:** 53%  
**Exposure time:** 5 d  
**Method:** Other guidelines

**Theoretical Oxygen Demand:** 2.40 mg/mg  
**Chemical Oxygen Demand:** 2.09 mg/mg

### Biological oxygen demand (BOD)

Incubation time	BOD
5 d	20 – 72 %
20 d	78 – 86%

### Photodegradation

**Test Type:** Half-life (indirect photolysis)  
**Sensitizer:** OH radicals  
**Atmospheric half-life:** 1.472 d  
**Method:** Estimated

### Bioaccumulative potential

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).  
**Partition coefficient: n-octanol/water (log Pow):** 0.05 Measured

### Mobility in soil

Potential for mobility in soil is very high (Koc between 0 and 50).  
**Partition coefficient (Koc):** 1.1 Estimated.

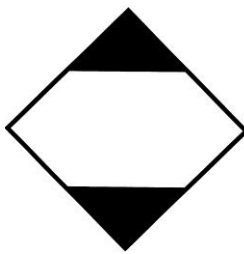
## Section 13: Disposal Considerations

**Disposal methods:** DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESS OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN THIS SAFETY DATA SHEET. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed permitted incinerator or other thermal destruction device.

**Empty containers:** DO NOT RECYCLE!

## Section 14: Transport Information

**DOT/UN HAZARD CLASSIFICATION:** N/A





## **Section 15: Regulatory Information**

### **OSHA Hazard Communication Standard**

This product is a "Hazardous Chemical as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### **Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312**

Fire Hazard  
Acute Health Hazard  
Chronic Health Hazard

### **Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-To-Know Act of 1986) Section 313**

<b>Components</b>	<b>CAS RN</b>
Isopropanol	67-63-0

### **Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) Section 103**

This product contains the following substances which are subject to CERCLA Section 103 reporting requirements and which are listed in 40 CFR 302.4.

### **Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Hazardous Substances List and/or Pennsylvania Environmental Hazardous Substance List**

The following product components are cited in the Pennsylvania Hazardous Substance List and/or the Pennsylvania Environmental Substance List, and are present at levels which require reporting.

<b>Components</b>	<b>CAS RN</b>
Isopropanol	67-63-0

### **California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)**

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

### **United States TSCA Inventory (TSCA)**

All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

## **Section 16: Other Information**

### **National Fire Protection Association (USA)**

Health:	2
Flammability:	3
Reactivity:	0

### **Revision**

Identification Number: 101234176 / A001 / Issue Date: 06.10.2015 (from mfg's sds of 4.27.15, version 7.0)

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## Legend

ACGIH	USA. ACGIH Threshold Limit Values (TLV)
OSHA Z-1	USA. Occupational Exposure Limits (OSHA) – Table Z-1 Limits for Air Contaminants
STEL	Short-term exposure limit
TWA	8-hour, time-weighted average

## Information Source and References

This SDS is prepared by Pierce Companies Regulatory Department referencing the SDS from the Manufacturer who supplies the hazardous ingredient in our finished product. The only hazardous ingredient is Isopropyl Alcohol (Isopropanol). The SDS was furnished to Pierce from The Dow Chemical Company.

**Prepared by:** Pierce Companies Regulatory Department  
**Date of Preparation/Revision:** October 19, 2017

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