

# Safety Data Sheet

Trade name: Airway Lubricant  
Product No: 365.770.1001



4/12/2017

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

### **1.1 Product identifier: Airway Lubricant**

**7-SIGMA Simulation Systems**  
2843 26<sup>th</sup> Avenue South  
Minneapolis, MN 55406

**Substances: Glycerin, Isopropyl Alcohol**

**US Sales: (612) 722-5358**  
**Order Online: 7-sigma.com/7-S3**

**Substance name: Glycerin**  
**CAS No.: 56-81-5**

**CHEMTREC (24HR Emergency Telephone), call: 1-800-424-9300**

**Substance name: Isopropyl Alcohol**  
**CAS No.: 67-63-0**

#### **Mixtures:**

<b>Glycerin</b>	<b>56-81-5</b>	<b>95-99%</b>
<b>Isopropyl Alcohol</b>	<b>67-63-0</b>	<b>1-5%</b>

**1.2. This mixture is to be used only for lubricating the 7 SIGMA Manikin Airway Trainer for intubation purposes only.**

### **1.3 Details of the supplier of the safety data sheet:**

#### **Supplier:**

**Name: 7-SIGMA Simulation Systems**  
**Address: 2843 26<sup>th</sup> Ave S Minneapolis, MN**  
**Information contact: Judy VanCleve**  
**E-Mail : jvancleve@7-sigma.com**

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## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture:

Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL and/or M-factor	Classification procedure
<b><u>Glycerin</u></b> ORAL LD50: Acute: 12600mg/kg (Rat), 4090 mg/kg (Mouse), DERMAL LD50: Acute:10000mg/kg (Rabbit). MIST LC50:Acute:>570 mg/m 1 hours (Rat)	<b>C - 95-99%:</b> <b>STOT RE 1, H372</b> <b>0,1 ≤ C &lt; 1 %:</b> <b>STOT RE 2, H373</b> <b>M = 100</b> <b>M = 10</b>	
<b><u>Isopropyl Alcohol:</u></b> ORAL LD50: Acute: 5045 mg/kg (Rat), 3600 mg/kg (Mouse), 6410 mg/kg (Rabbit) DERMAL LD50: Acute:12800mg/kg (Rabbit).	<b>C - 1-5 %</b>	

### 2.2 Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
P301+P330 IF SWALLOWED: Rinse mouth.  
P303+P361+P353 IF ON SKIN (or hair): Rinse skin with soap water.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

### Supplemental Hazard information:

**Potential Acute Health Effects:** Slightly hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, of inhalation.

### Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not Available.  
TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available.  
The substance may be toxic to kidneys. Repeated or prolonged exposure to the substance can produce target organs damage.

***This mixture does not contain further substances fulfilling the criteria of hazard class "acute toxicity" according to CLP regulation.***

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## **SECTION 4: First aid measures**

### **4.1 Description of first aid measures**

**Following inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breath is difficult, give oxygen. Get medical attention immediately. **Serious inhalation:** not available.

**Following skin contact:** Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

**Following eye contact:** Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention if irritation occurs.

**Following ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear. **Serious Ingestion:** Not available.

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## **SECTION 5: Firefighting measures**

### **Auto Ignition Temperature:**

370°C (698°F) NFPA Fire Protection Guide to Hazardous Materials 13<sup>th</sup> ed. 2002 NIOSH ICSC, 2001; CHRIS, 2001 )  
392°C (798°F) Lewis 1997)

### **Flash Points:**

Closed Cup: 160°C (320°F) (Chemical Hazard Response Information System 2001; Lewis 1997). OPEN CUP: 177°C (350.6°F) Budavari 2000 Chemical Response Information System NIOSH ICSC, 2001; OPEN CUP 199°C (390°F) National Fire Protection Association, Fire Protection Guide to Hazardous Materials, 13<sup>th</sup> ed. 2002.

### **5.1 Extinguishing**

Suitable extinguishing media: Use DRY chemical powder. LARGE FIRE: Use water spray, fog **OR FOAM**.  
**Do not use water jet.**

Unsuitable extinguishing media: Not available.

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

Hazardous combustion products:

### **5.3 Advice for fire-fighters:** Not available.

**Additional information:** Glycerin is incompatible with strong oxidizers such as chromium trioxide, potassium chlorate, or potassium permanganate and may explode on contact with these compounds. Explosive glyceryl nitrate is formed from a mixture of glycerine and nitric and sulphuric acids. Perchloric acid, lead oxide + glycerine form perchloric esters which may be explosive. Glycerin and chlorine may explode if heated and confined.

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

#### For non-emergency personnel

Protective equipment: Not available.

Emergency procedures:

**Small Spill:** Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of liquid according to local and regional authority requirements.

**Large Spill:** Stop leak if without risk. As the product is in liquid form, do not get water inside the container. Absorb with an inert material and put the spilled material in an appropriate waste disposal. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal. Finish cleaning by spreading water on the contaminated surface and allow liquid to evacuate through the sanitary system. Be careful that the product is not present as a concentration level above TLV. Check TLV on the SDS and with local authorities.

## SECTION 7: Handling and storage

**7.1 Precautions for safe handling:** Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/vapor/spray. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents.

**7.2 Conditions for safe storage, including any incompatibilities:** Keep the container tightly closed. Keep container in a cool, well-ventilated area.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### 8.1.1 Occupational exposure limits :

Limit value type (country of origin)	Substance name	EC-No.	CAS-No.	Occupational exposure limit value		Monitoring and observation processes	Peak limitation	Source
				Long term	Short term			
<i>TWA (US, Canada)</i>	Glycerin		56-81-5	10 mg/m <sup>3</sup>	20 mg/m <sup>3</sup>			ACGIH (United States)

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## 8.1.2 Biological limit values:

Limit value type (country of origin)	Substance name	EC-No.	CAS-No.	Limit Value	Parameter	Test material	Test date	Source
BGW (DE)	2-Propanol		67-63-0	50 mg/l 50 mg/l	Acetone	Urine (U) Whole Blood (B)	b	TRGS 903

**8.1.3 Exposure limits at intended use:** TWA: 10(mg/m<sup>3</sup>) from ACGIH (TLV) {United States} {1999} Inhalation Total. TWA: 15(Mg/m<sup>3</sup>) from OSHA (PEL) [United States] Inhalation Total. TWA: 20 (mg/m<sup>3</sup>) [Canada] TWA: 5 (mg/m<sup>3</sup>) from OSHA (PEL) [United States] Inhalation Respirable. Consult local authorities for acceptable exposure limits.

**8.2.1 Appropriate engineering controls:** Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are in proximity to the work-station location.

**8.2.2 Personal Protection:** Safety. Lab coat. Gloves. Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

**8.2.3 Personal protection in Case of a Large Spill:** Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

## SECTION 9. Physical and chemical properties

**Physical state and appearance:** Liquid, (viscous [Syrupy] liquid.)

**Odor:** Mild

**Molecular Weight:** 92.09 g/mole

**Color:** Clear, colorless.

**pH (soln/water):** Not available.

**Boiling Point:** 290°C (554°F)

**Melting Point:** 19°C (66.2°F)

**Critical Temperature:** Not available.

**Specific Gravity:** 1.2636 (Water =1)

**Vapor Pressure:** 0 kPa (@20°C)

**Vapor Density:** 3.17 (Air=1)

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**Volatility:** Not available.

**Odor Threshold:** Not available.

**Water/Oil Dist. Coeff.:** The product is more soluble in water,  $\log(\text{oil/water})=-1.8$

**Ionicity (in Water):** Not available.

**Dispersion Properties:** See solubility in water, acetone.

**Solubility:** Miscible in cold water, hot water and alcohol. Partially soluble in acetone. Very slightly soluble in diethyl ether (ethyl ether). Limited solubility in ethyl acetate. Insoluble in carbon tetrachloride, benzene, chloroform, petroleum ethers, and oils.

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## **Section 10: Stability and Reactivity Data**

**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Avoid contact with incompatible materials, excess heat and ignition, sources, moisture.

**Incompatibility with various substances:** Highly reactive with oxidizing agents.

**Corrosivity:** Non-corrosive in presence of glass.

**Special Remarks on Reactivity:** Hygroscopic. Glycerin is incompatible with strong oxidizers such as chromium trioxide, potassium chlorate, or potassium permanganate. Glycerin may react violently with acetic anhydride, aniline and nitrobenzene, chromic oxide, lead oxide and fluorine, phosphorous triiodide, ethylene oxide and heat, silver perchlorate, sodium peroxide, sodium hydride.

**Special Remarks on Corrosivity:** Not available.

**Polymerization:** Will not occur.

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## **Section 11: Toxicological Information**

**Routes of Entry:** Absorbed through skin. Eye contact.

**Toxicity to Animals:** WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. Acute oral toxicity (LD50): 4090 mg/kg [Mouse]/ Acute dermal toxicity (LD50): 10000 mg/kg [Rabbit]. Acute toxicity of the mist (LC50): >570 mg/m<sup>3</sup> 1 hours [Rat].

**Chronic Effects on Humans:** May cause damage to the following organs: kidneys.

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**Other Toxic Effects on Humans:** Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.

**Special Remarks on Toxicity to Animals:** TDL (rat) – Route: Oral; Dose: 100mg/kg 1 day prior to mating. TDL (human) – Route: Oral; Dose: 1428mg/kg

**Special Remarks on Chronic Effects on Humans:** Glycerin is transferred across the placenta in small amounts. May cause adverse reproductive effects based on animal data (Paternal Effects (Rat): Spermatogenesis (including genetic material, sperm morphology, motility, and count), Testes, epididymis, sperm duct). May affect genetic material.

**Special Remarks on other Toxic Effects on Humans:**

Acute Potential Health Effects: Low Hazard for normal industrial handling or normal workplace conditions. Skin: May cause skin irritation. May be absorbed through skin. Eyes: May cause eye irritation with stinging, redness, burning sensation, and tearing, but no eye injury. Ingestion: Low hazard. Low toxicity except with very large doses. When large doses are ingested, it can cause

gastrointestinal tract irritation with thirst (dehydration), nausea or vomiting, diarrhea. It may also affect behavioral/central nervous system/nervous system (central nervous system depression, general anesthetic, headache, dizziness, confusion, insomnia, toxic psychoses, muscle weakness, paralysis, convulsions) urinary system/kidneys (renal failure, hemoglobinuria), cardiovascular system (cardiac arrhythmias), liver. It may also cause elevated blood sugar. Inhalation: Due to low vapor pressure, inhalation of the vapors at room temperature is unlikely. Inhalation of mist may cause respiratory tract irritation. Chronic Potential Health Effects: Ingestion: Prolonged or repeated ingestion may affect the blood (hemolysis, changes in white blood cell count), endocrine system (changes in adrenal weight), respiratory system, and may cause kidney injury.

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## Section 12: Ecological Information

**Ecotoxicity:** Ecotoxicity in water (LC50): 58.5 ppm 96 hours [Trout].

**BOD5 and COD:** Not available.

**Products of Biodegradation:** Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:** The products of degradation are less toxic than the product itself.

**Special Remarks on the Products of Biodegradation:** Not available

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## Section 13: Disposal Considerations

**Waste Disposal:** Waste must be disposed of in accordance with federal, state and local environmental control regulations.

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## Section 14: Transport Information

**DOT Classification:** Not a DOT controlled material (United States).

**Identification:** Not applicable.

**Special Provisions for Transport:** Not applicable.

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## Section 15: Other Regulatory Information

**Federal and State Regulations:** Illinois toxic substances disclosure to employee act: Glycerin Rhode Island RTK hazardous substances: Glycerin Pennsylvania RTK: Glycerin Minnesota: Glycerin Massachusetts RTK: Glycerin Tennessee – Hazardous Right to Know: Glycerin TSCA 8((b) inventory: Glycerin

**Other Regulations:** OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

**Other Classifications:**

**WHMIS (Canada):** Not controlled under WHMIS (Canada).

**DSCL(EEC):** Not available S24/25 – Avoid contact with skin and eyes.

**HMIS (USA): Health Hazard: 1 Fire Hazard: 1 Reactivity: 0 Personal Protection: g**

**NFPA (USA): Health: 1 Flammability: 1 Reactivity: 0 Specific Hazard:**

**Protective Equipment:** Gloves, Lab coat, Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Safety glasses.

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## Section 16: Other Information

**References:** Not available

**Other Special Considerations:** Not available

**Created:** 4/5/2017

**Last Updated:** 4/11/2017

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