



### 3. Composition / Information on ingredients

Chemical identity:	2-Propanol (solution)	91%
Common name:	Isopropyl alcohol, Rubbing alcohol	
Numbers of identity:	CAS. 67-63-0	EINECS. 200-661-7
Chemical identity:	Water	9%
Common name:	Water	
Numbers of identity:	CAS 7732-18-5	EINECS 231-791-2
Impurities: None of toxicological significance.		

### 4. First-aid measures

P304+313 +341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Consult a physician.

P302+352 IF ON SKIN: Wash with soap and water.

P305+351+338 IF IN EYES: Rinse continuously with water for several minutes.  
Remove contact lenses if present and easy to do; continue rinsing.

P301+330+331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed: Severe eye irritation. Skin irritation.

### 5. Firefighting measures

**Suitable extinguishing equipment:**

Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Emergency procedures:**

Eliminate ignition source. Evacuate unnecessary personnel. Call appropriate fire fighting crew.  
Special protective equipment for firefighters  
Wear self contained breathing apparatus for fire fighting if necessary.  
Hazardous decomposition products formed under fire conditions. - Carbon oxides, product vapors.  
Use water spray to cool unopened containers.

### 6. Accidental release measures

Use personal protective equipment. Avoid breathing, mist or vapors. Ensure adequate ventilation.  
Remove all sources of ignition. Evacuate personnel to safe areas. Be aware of possible accumulating vapors which could form explosive concentrations. Vapors can accumulate in low areas.  
Environmental precautions:  
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.  
Methods and materials for containment and cleaning up  
Contain spillage, and then absorb with industrial absorbent, or collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.  
See also Sec. 13.

### 7. Handling and storage

**Precautions for safe handling:**

Avoid contact with skin and eyes. Avoid inhalation of vapors or mist.  
Use explosion-proof equipment. Keep away from sources of ignition - No smoking.  
Prevent the build up of electrostatic charge.

**Conditions for safe storage:**

Keep container tightly closed in a dry and well-ventilated place.  
Containers which have been opened must be resealed and kept upright to prevent leakage.

## 8. Exposure controls / personal protection

Information on the system design:

Product is intended for external use only. Stay up wind, out of any spray developed.

Exposure Limits:	Reference 29CFR 1910.1000 Table Z-1
Component Name, CAS#	OSHA PEL                      OSHA STEL
2-Propanol      67-63-0	400 ppm 980 mg/m <sup>3</sup> 500 ppm 1,225 mg/m <sup>3</sup>

### Personal protective equipment :

Respiratory protection:      Where appropriate use a full-face supplied air respirator.  
 Hand protection:              Rubber gloves.  
 Eye protection:                Safety glasses with side-shields.  
 Skin and body protection:    Chemical resistant apron or protective suit if splashing or repeated contact with solution is likely; flame retardant and antistatic properties are recommended.

**Hygiene measures :**    Handle in accordance with good industrial hygiene and safety practice.  
 Wash hands and face before breaks and immediately after handling the product.

## 9. Physical and chemical properties

Appearance:	Clear, colorless liquid	
Odor:	Alcoholic	
Odor threshold:	The highest known value is 22 ppm (Isopropyl alcohol)	
pH-value:	Approx. 7-9	
Melting point:	no data available	
Freezing Point:	no data available	
Initial boiling point:	no data available	
Flash point:	18 °C (65 °F) - closed cup (approximate)	
Evaporation rate:	no data available	
Flammability (solid, gas):	Not applicable	
Explosion limits:	Lower: 2% Upper: 12.7% (Isopropyl alcohol)	
Vapor pressure: (highest partial vapor pressure) at 20°C:	Not available	
Vapor density:	Not available	
Relative density (water=1.00):	0.80 g/cm <sup>3</sup> approx.	Auto-ignition temperature: Not available
Solubility: Totally soluble in water at 20°C		Decomposition temperature: Not available
Partition coefficient: Log Kow =	Not applicable to mixture.	Viscosity: Like water

## 10. Stability and reactivity

Chemical stability: No decomposition, if used according to specifications.  
 Possibility of hazardous reactions: May form explosive mixture with air.  
 Conditions to avoid:    Heat, flames and sparks. Extremes of temperature and direct sunlight.  
 Materials to avoid:      Aluminum, Acids, Oxidizing agents, Halogenated compounds, Acid anhydrides  
 Hazardous decomposition products: Carbon oxides, product vapors.

## 11. Toxicological information

There is no data available for the product.

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

	2-Propanol
Oral Toxicity LD 50:	5143 mg/kg (Mouse) (Calculated value for 70% in water mixture)
Dermal Toxicity LD 50:	18286 mg/kg (Rabbit) (Calculated value for 70% in water mixture)
Inhalation Toxicity, Vapor, LC50	No data.
Eye Irritation (Rabbit)	No data.
Dermal Irritation (Rabbit)	No data.

Chronic Effects on Humans:

No component listed by NTP, IARC, OSHA or ACGIH as a suspect or potential carcinogen.  
 California Prop. 65 chemicals: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Contains material which may cause damage to the following organs: kidneys, liver, CNS,

### Signs and Symptoms of Exposure:

Central nervous system depression, prolonged or repeated exposure can cause:, nausea, dizziness, narcosis, drowsiness,

## 12. Ecological information

Ecotoxicity: Not available for the product. BOD and COD: Not available.

### Products of Biodegradation:

Hazardous short term degradation products are not likely, but long term degradation products may arise.  
 Toxicity of the Products of Biodegradation: The product itself and its products of degradation are not toxic.  
 Special Remarks on the Products of Biodegradation: Not available.

PBT and vPvB assessment: No data available.  
 Persistence and degradability: No data available.  
 Bioaccumulative potential: No data available.  
 Mobility in soil: No data available.  
 Other adverse effects: No data available.

## 13. Disposal considerations

Burn in a chemical incinerator equipped with an afterburner and scrubber.  
 Dispose in accordance with local, state and federal regulations.

## 14. Transport information

### DOT (US)

UN number: 3175 Class 4.1 Label: 4.1 Packing group: II  
 Proper shipping name: Solids containing flammable liquid, n.o.s. (Isopropanol)  
 Reportable Quantity (RQ): Not applicable  
 Special precautions for local transport or conveyance: None  
 Marine pollutant: No May also be shipped Consumer Commodity ORM-D  
 The description shown may not apply to all shipping situations. Consult 49CFR, OSHA or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name, labeling) and mode-specific or quantity-specific shipping requirements,

## 15. Regulatory information

OSHA Hazards: Hazard Communication Standard (29 CFR 1910.1200).  
 Flammable liquid, Target Organ Effect, Irritant  
 SARA 302 Components: None  
 SARA 313 Components: Isopropanol CAS 67-63-0  
 Inventory Status: All components are on TSCA, EINECS/ELINCS, AICS, and DSL.

### Federal and State Regulations:

State Right to Know lists (RTK): 2-Propanol: FL, IL, MA, MN, NJ, PA, RI,  
 Water: Ma, PA, NJ

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).  
 Flammable liquid, Target Organ Effect, Irritant  
 WHMIS (Canada): CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F). CLASS D-2B:  
 CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F). CLASS D-2B:  
 Material causing other toxic effects: None  
 California Prop 65: This product will This product does not contain any chemicals known to State of California cancer, birth defects or other reproductive harm.

## 16. Other information

Original SDS Preparation date: January 5, 2015

Hazard Categories:	Health	Fire	Pressure	Reactivity	Reference 49 CFR 171.8,
Immediate	Yes	Yes	No	No	OSHA 29 CFR 1910.1200 and SARA 302/311/312/313.
Delayed	Yes	No	XXX	XXX	
HMIS Hazard ratings: Health 2 Fire 3 Instability 0 Other B (Goggles, gloves)					
Hazard Ratings: Least: 0 Slight: 1 Moderate: 2 High: 3 Extreme: 4					

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Note: The information in this SDS was obtained from current reputable and competent sources. However, the data is provided without warranty, expressed or implied, regarding its correctness or accuracy. It is the user's responsibility to determine safe conditions for the use of this product and to assume liability for loss, injury, damage or expense resulting from improper use of this product. This MSDS is designed for workplace employees, emergency personnel and for other conditions and situations where there is a greater potential for large-scale or prolonged exposure, in accordance with requirements of the U.S. Government's Occupational Safety and Health Administration (OSHA).