Section I - Product Identification
Isopropanol. Synonyms are 2-propanol and isopropyl alcohol.

Section II - Hazards Identification
Danger: Extremely flammable liquid and vapor. Keep away from heat, sparks, open flames and hot surfaces. No smoking. Keep container tightly closed. Use only non-sparking tools. Take precautions against static discharge. Wear protective clothes and eye protection. In case of skin contact immediately remove all contaminated clothing. Rinse with water or shower. In case of fire, use fire extinguishers approved for alcohol fires.

Safety Ratings
Health: Slight  Flammability: Highly flammable  Reactivity: None  Contact: Slight
Recommended safety equipment: safety goggles, lab coat and proper gloves
Storage: General storage
NFPA Ratings
Health = 1  Flammability = 4  Reactivity = 0

Potential Health Effects
The toxicology of this compound have not been completely examined. It is presumed that the toxicity of this item is similar to other aliphatic alcohols.

Inhalation: May be irritating. Exposure to high concentrations can cause unconsciousness and death. Widespread and prolonged exposure may result in absorption of harmful amounts, particularly in infants

Ingestion: Ingestion may cause drowsiness and loss of consciousness. Stomach cramps, pain, vomiting and diarrhea may also occur.

Skin contact: Concentrations above the TLV may cause local redness, dryness and cracking of the skin.

Eye contact: Irritating to eyes. Prolonged contact may produce corneal burns.

Chronic Exposure: Unknown.

Aggravation of preexisting conditions: Impaired kidney and liver function may be aggravated by exposure to alcohols. Preexisting eye, skin, and respiratory conditions may also be aggravated.

Section III - Composition/Information on Components

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS#</th>
<th>OSHA Pel</th>
<th>ACGIH TLV</th>
<th>Other Limits</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropanol</td>
<td>67-63-0</td>
<td>400 ppm TWA</td>
<td>400 ppm STEL</td>
<td></td>
<td>100% v/v</td>
</tr>
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</table>

Section IV - First Aid Measures
Inhalation: Remove from source of exposure, assist breathing and get medical attention.

Ingestion: Never give anything by mouth to an unconscious person. Administer large quantities of fluids and get medical help.

Skin Contact: Wash affected area with soap and water. Get medical advice if irritation develops.

Eye Contact: Rinse thoroughly with running water. Get medical advice if irritation develops.
Section V - Fire Fighting Measures

*Flash point:* 12 °C (53 °F) TCC  
*Flammable Limits:* LEL 2%  UEL 13%  
*Explosion:* Not Normally an explosion hazards.  
*Fire Extinguishing Media:* Alcohol type foam, carbon dioxide or dry chemical. Water is ineffective against alcohol fires but may be used to cool adjacent containers.  
*Special information:* Pyrolysis will release toxic oxides such as carbon monoxide.

Section VI - Accidental Release Measures

Absorb with a suitable absorbent (such as paper towels) and store in a suitable container for disposal.

Section VII - Handling and Storage

Store in a well ventilated place. Store in a closed container, away from sources of ignition at controlled room temperature.

Section VIII - Exposure Control/Personal Protection

*Airborne Exposure Limits:* See section III.  
*Ventilation System:* Local exhaust, such as chemical fume hoods, are recommended to control vapors. When required, Refer to the ACGIH document, “Industrial Ventilation, a Manual of Recommended Practices” for details about ventilation.  
*Personal Respirator:* Usually not required. In case of emergency, or when exposure levels are unknown, use a positive pressure, full face piece, air supplied respirator.  
*Skin protection:* Protective gloves are recommended as part of good laboratory practice.  
*Eye Protection:* Laboratory safety goggles or similar products are recommended as part of good laboratory practice.

Section IX - Physical and Chemical Properties

*Boiling Point:* 180 °F (82 °C)  
*Density:* 0.786 g/ml  
*Vapor pressure (mm Hg):* 33 @ 20 °C  
*Vapor Density (air = 1):* 2.1  
*VOC:* 786 g/l  
*Appearance and Odor:* A clear, colorless liquid with the characteristic odor of isopropanol.

Section X - Stability and Reactivity

*Stability:* Stable.  
*Hazardous Decomposition Products:* Nothing unusual.  
*Hazardous polymerization:* Will not occur.  
*Incompatibilities:* Strong oxidizers.  
*Conditions to avoid:* Excessive cold/heat and light.

Section XI - Toxicological Information

*oral rat LD_{50} = 5.05 g/kg*  
*inhalation rat LD_{LO} = 1200 ppm/8 hours*

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Known Carcinogenicity?</th>
<th>NTP?</th>
<th>Anticipated?</th>
<th>IARC Category</th>
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</thead>
<tbody>
<tr>
<td>isopropanol</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>3</td>
</tr>
</tbody>
</table>

Section XII - Ecological Information

*Environmental Fate:* Biodegradable  
*Environmental Toxicity:* Not expected to be toxic to fish.

Section XIII - Disposal Considerations

Incineration at a licensed chemical disposal facility is the preferred disposal method. Local governments often restrict the amounts of isopropanol and other flammable liquids that may be flushed down the drain. Dispose of contents and container in accord with all applicable regulations.
Section XIV - Transportation information

DOT Shipping name: Isopropanol or Isopropyl Alcohol
DOT Hazard Class: 3
Packaging Group: II
Hazard Label: Flammable Liquid
DOT Identification Number: UN 1219

Bottles smaller than 32 Fl. Oz. are eligible to be shipped under ORM-D or limited quantity exemptions [49 CFR section 173.150(b)(2), 173.150(C) and IATA Y341].

Section XV - Regulatory Information

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>TSCA</th>
<th>EC</th>
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<tbody>
<tr>
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</table>

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>RQ</th>
<th>TPQ</th>
<th>List</th>
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<tbody>
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<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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</tr>
</tbody>
</table>

SARA 302: No
SARA 313: No
RCRA: Yes
TSCA: No

Chemical Weapons Convention: No
TSCA 12(b): No
CDTA: Yes

SARA 311/312: Acute: Yes
Chronic: Yes
Fire: Yes

Section XVI - Other Information

This information is believed to be correct but is not waranteed as such, nor does it purport to be all inclusive.

Revision Date: Jan. 3, 2018