1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS</th>
<th>Personal Protective Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2</td>
<td>Health Hazard</td>
</tr>
<tr>
<td>0</td>
<td>3</td>
<td>Fire Hazard</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>Reactivity</td>
</tr>
</tbody>
</table>

Product code: IS120
Product Name: ISOPROPYL ALCOHOL, 70 PERCENT, USP
Chemical Name: Isopropyl alcohol, 70%
Synonyms:
- 2-Propanol, 70%
- Isopropanol, 70%
- Isopropyl Rubbing Alcohol
- Alcohol isopropyle, 70% (French)
- Alcohol isopropílico, 70% (Spanish)
Recommended use: Antiseptic. Disinfectant.
CAS #: Mixture
RTECS #: NT8050000 (Isopropyl alcohol)
        ZC0110000 (Water)
Formula: No information available
CI#: Not available
Supplier: Spectrum Chemicals and Laboratory Products, Inc.
          14422 South San Pedro St.
          Gardena, CA  90248
          (310) 516-8000
Order Online At: https://www.spectrumchemical.com
Emergency Telephone Number: CHEMTREC: 1-800-424-9300
Contact Person: Regina Wachenheim (East Coast)
                Martin LaBenz (West Coast)

2. HAZARDS IDENTIFICATION
2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
DANGER FLAMMABLE!
Can burn with an invisible flame
WARNING! IRRITANT
Irritating to eyes
May cause skin irritation

<table>
<thead>
<tr>
<th>Odor:</th>
<th>Physical state:</th>
<th>Appearance:</th>
<th>Color:</th>
</tr>
</thead>
</table>

OSHA Regulatory Status
This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

POTENTIAL HEALTH EFFECTS

Principal Routes of Exposure:
Ingestion. Skin. Eyes. Inhalation.

Acute Potential Health Effects:

Skin Contact:
May cause skin irritation. Mild skin irritation. It may be absorbed through the skin. If absorbed through skin it may cause systemic effects.

Eye Contact:
Causes eye irritation.

Inhalation:
May cause irritation of respiratory tract. May affect respiration. Inhalation of vapors may cause dizziness or suffocation. May affect the nervous system. May cause central nervous system effects. It may affect the brain. May cause cardiovascular effects. It may affect the blood. May affect the urinary system. May affect the liver.

Ingestion:
Ingestion may cause gastrointestinal irritation, nausea, vomiting, and diarrhoea. May cause abdominal pain. May cause central nervous system effects. May affect respiration. It may affect the kidneys. May affect the cardiovascular system. May affect the liver. Aspiration hazard. Aspiration into the lungs may cause chemical pneumonitis.

Chronic Potential Health Effects:

<table>
<thead>
<tr>
<th>Component</th>
<th>Carcinogen Status:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl Alcohol 67-63-0 (70)</td>
<td>Group 3 - Not classifiable as to its carcinogenicity to humans by IARC; A4 - Not classifiable as a Human Carcinogen by ACGIH</td>
</tr>
<tr>
<td>Water 7732-18-5 (30)</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

Target Organs:

Mutagenic Effects:
No information available

Teratogenic Effects:
May cause birth defects (teratogenic effects) based on animal test data. Showed teratogenic effects in animal experiments

Aggravated Medical Conditions:
No information available
See Section 11 for additional Toxicological Information

POTENTIAL ENVIRONMENTAL EFFECTS

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl Alcohol</td>
<td>67-63-0</td>
<td>70</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>30</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

General Advice: Poison information centres in each State capital city can provide additional assistance for scheduled poisons (13 1126).

Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention if irritation develops.

Eye Contact: Flush eye with water for 15 minutes. Get medical attention.

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

Notes to Physician: Treat symptomatically

5. FIRE-FIGHTING MEASURES

Flammable Properties

Flashpoint (°C/°F): 18.3-24 °C/64.9-75°F

Flash Point Tested according to: Closed cup

Lower Explosion Limit (%): 2% (Isopropyl Alcohol)
Upper Explosion Limit (%): 12.7 (Isopropyl Alcohol)

Autoignition Temperature (°C/°F): 399 °C/750.2 °F (Isopropyl Alcohol)

Suitable Extinguishing Media: Carbon dioxide (CO2). Dry chemical. Alcohol-resistant foam. Water spray.

Unsuitable Extinguishing Media: Do not use a solid (straight) water stream as it may scatter and spread fire.

Hazardous Combustion Products: Carbon monoxide; Carbon dioxide
Specific hazards: Flammable
May be ignited by heat, sparks or flames
Container explosion may occur under fire conditions or when heated
Material can burn with invisible flame
Vapor may travel considerable distance to source of ignition and flash back
Vapors may form explosive mixtures with air
Most vapors are heavier than air. They will spread along the ground and collect in low or confined areas (sewers, basements, tanks)
Fire may produce irritating, corrosive and/or toxic gases

Special Protective Equipment for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

Specific Methods: Water mist may be used to cool closed containers. For larger fires, use water spray or fog. Cool containers with flooding quantities of water until well after fire is out.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:
Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition. Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use spark-proof tools and explosion-proof equipment. In case of large spill, water spray or vapor suppressing foam may be used to reduce vapors, but may not prevent ignition in closed spaces.

Environmental Precautions:
Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas. In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

Methods for Cleaning Up:
Absorb spill with inert material (e.g. vermiculite, dry sand or earth), then place in a suitable chemical waste container. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Handling

Technical Measures/Precautions:
Provide sufficient air exchange and/or exhaust in work rooms. Remove all sources of ignition. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from incompatible materials.

Safe Handling Advice:
Wear personal protective equipment. Use only in well-ventilated areas. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not breathe vapors or spray mist. Do not ingest. When using do not smoke. Handle in accordance with good industrial hygiene and safety practice.

Storage
Technical Measures/Storage Conditions:
Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container.
Sensitive to light. Store in light-resistant containers. Keep away from heat and sources of ignition. Store in a segregated and approved area. Store away from incompatible materials.

Incompatible Materials:

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures to reduce exposure:
Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

Personal Protective Equipment
Eye protection: Goggles. Safety glasses with side-shields.
Skin and body protection: Chemical resistant apron. Long sleeved clothing. Gloves.
Respiratory protection: Vapor respirator. Be sure to use an approved/certified respirator or equivalent.
Hygiene measures: Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

National occupational exposure limits

United States

<table>
<thead>
<tr>
<th>Components</th>
<th>OSHA</th>
<th>NIOSH</th>
<th>ACGIH</th>
<th>AIHA WHEEL</th>
</tr>
</thead>
<tbody>
<tr>
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<td>400 ppm TWA</td>
<td>980 mg/m³ TWA</td>
<td>400 ppm STEL</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>980 mg/m³ TWA</td>
<td>500 ppm STEL</td>
<td>200 ppm TWA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1225 mg/m³ STEL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water - 7732-18-5</td>
<td>None</td>
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<td>None</td>
<td>None</td>
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</table>

Canada

<table>
<thead>
<tr>
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<th>British Columbia</th>
<th>Ontario</th>
<th>Quebec</th>
</tr>
</thead>
<tbody>
<tr>
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<td>200 ppm TWA</td>
<td>200 ppm TWA</td>
<td>200 ppm TWA</td>
<td>400 ppm TWAEV</td>
</tr>
<tr>
<td></td>
<td>492 mg/m³ TWA</td>
<td>400 ppm STEL</td>
<td>492 mg/m³ TWA</td>
<td>985 mg/m³ TWAEV</td>
</tr>
<tr>
<td></td>
<td>400 ppm STEL</td>
<td></td>
<td>1225 mg/m³ STEL</td>
<td>500 ppm STEV</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1230 mg/m³ STEV</td>
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<tr>
<td>Water 7732-18-5</td>
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<td>None</td>
<td>None</td>
<td>None</td>
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</table>

Australia and Mexico

<table>
<thead>
<tr>
<th>Components</th>
<th>Australia</th>
<th>Mexico</th>
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</thead>
<tbody>
<tr>
<td>Isopropyl Alcohol 67-63-0</td>
<td>500 ppm STEL</td>
<td>400 ppm TWA</td>
</tr>
<tr>
<td></td>
<td>1230 mg/m³ STEL</td>
<td>980 mg/m³ TWA</td>
</tr>
<tr>
<td></td>
<td>400 ppm TWA</td>
<td>500 ppm STEL</td>
</tr>
<tr>
<td></td>
<td>983 mg/m³ TWA</td>
<td>1225 mg/m³ STEL</td>
</tr>
<tr>
<td>Water 7732-18-5</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

9. PHYSICAL AND CHEMICAL PROPERTIES
9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:** Liquid.

**Odor:** Pleasant. Odor resembling that of a mixture of ethanol and acetone.

**Flash point (°C):** 18.3

**Autoignition Temperature (°C/°F):** 399 °C/750.2 °F (Isopropyl Alcohol)

**pH:** No information available

**Decomposition temperature(°C/°F):** No information available

**Evaporation rate:** 2.8 (1 = Butyl Acetate)

**Odor threshold (ppm):** 22 ppm (Isopropyl Alcohol)

**Solubility:** Completely soluble

**Physical and Chemical Properties**

- **Appearance:** No information available
- **Color:** Clear. Colorless.
- **Molecular/Formula weight:** No information available
- **Taste:** No information available
- **Lower Explosion Limit (%):** 2% (Isopropyl Alcohol)
- **Upper Explosion Limit (%):** 12.7 (Isopropyl Alcohol)
- **Melting point/range(°C/°F):** < -40 °C/-40°F
- **Boiling point/range(°C/°F):** 78.3 °C/173 °F
- **Specific gravity:** 0.872-0.883
- **Bulk density:** No information available
- **Partition coefficient (n-octanol/water):** -0.16
- **Vapor pressure @ 20°C (kPa):** 3.066
- **Vapor density:** No information available
- **VOC content (g/L):** 563-615
- **Miscibility:** Miscible with water. Miscible with alcohol

10. STABILITY AND REACTIVITY

**Stability:** Stable at normal conditions

**Conditions to avoid:** Heat. Ignition sources. Exposure to light. Incompatible materials.


**Hazardous decomposition products:** Carbon monoxide. Carbon dioxide. When heated to decomposition it emits acrid smoke and irritating fumes.

**Possibility of Hazardous Reactions:** It can react vigorously, violently or explosively with oxidizers
- Contact with strong oxidizers may cause fire
- Vigorous reaction when mixed with sodium dichromate + sulfuric acid
- Explosive reaction can occur when it is mixed with nitroform
- Contact with potassium-tert-butoxide can cause ignition
- It forms explosive mixtures with trinitromethane, hydrogen peroxide, barium perchlorate
- Hydrogen peroxide sharply reduces the autoignition temperature of isopropyl alcohol
- After a delay, isopropyl alcohol ignites on contact with dioxgenyl tetrafluoroborate, chromium trioxide, potassium tert-butoxide
- It reacts violently with hydrogen-palladium combination, oleum, aluminum triisopropoxide, COCl2
- In the presence of iron salts, thermal decomposition can occur, which in some cases can become explosive

**Polymerization:** Hazardous polymerisation does not occur

**Product code:** IS120

**Product name:** ISOPROPYL ALCOHOL, 70 PERCENT, USP
11. TOXICOLOGICAL INFORMATION

Acute Toxicity

**Component Information**

*Isopropyl Alcohol - 67-63-0*

<table>
<thead>
<tr>
<th>Test Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50/oral/rat</td>
<td>4396 mg/kg Oral LD50 Rat</td>
</tr>
<tr>
<td>LD50/oral/mouse</td>
<td>3600 mg/kg (RTECS)</td>
</tr>
<tr>
<td>LD50/dermal/rat</td>
<td>12800 mg/kg</td>
</tr>
<tr>
<td>LD50/dermal/rabbit</td>
<td>12800 mg/kg Dermal LD50Rabbit</td>
</tr>
<tr>
<td>LC50/inhalation/rat</td>
<td>72.6 mg/l 4 h</td>
</tr>
<tr>
<td>16000 ppm Inhalation</td>
<td>LC50 Rat 8 h</td>
</tr>
<tr>
<td>LC50/inhalation/mouse</td>
<td>27.2 mg/l 4 h</td>
</tr>
<tr>
<td>Other LD50 or LC50 information</td>
<td>LD50 oral 6410 mg/kg [Rabbit]</td>
</tr>
</tbody>
</table>

*Water - 7732-18-5*

<table>
<thead>
<tr>
<th>Test Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50/oral/rat</td>
<td>&gt; 90 mL/kg Oral LD50 Rat</td>
</tr>
<tr>
<td>LD50/oral/mouse</td>
<td>No information available</td>
</tr>
<tr>
<td>LD50/dermal/rat</td>
<td>No information available</td>
</tr>
<tr>
<td>LD50/dermal/rabbit</td>
<td>No information available</td>
</tr>
<tr>
<td>LC50/inhalation/rat</td>
<td>No information available</td>
</tr>
<tr>
<td>LC50/inhalation/mouse</td>
<td>No information available</td>
</tr>
<tr>
<td>Other LD50 or LC50 information</td>
<td>No information available</td>
</tr>
</tbody>
</table>

**Product Information**

<table>
<thead>
<tr>
<th>Test Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50/inhalation/rat</td>
<td>No information available</td>
</tr>
<tr>
<td>LC50/Inhalation/mouse</td>
<td>No information available</td>
</tr>
<tr>
<td>LD50/dermal/rabbit</td>
<td>No information available</td>
</tr>
<tr>
<td>LD50/dermal/rat</td>
<td>No information available</td>
</tr>
<tr>
<td>LD50/oral/mouse</td>
<td>No information available</td>
</tr>
<tr>
<td>LD50/oral/rat</td>
<td>No information available</td>
</tr>
</tbody>
</table>

**Local Effects**

**Skin irritation:** May cause skin irritation. Mild skin irritation.

**Eye irritation:** Causes eye irritation. Moderate eye irritation.

**Inhalation:** May cause irritation of respiratory tract. It may affect the cardiovascular system (change in pulse rate). May affect respiration (respiratory depression). Inhalation of high concentrations of vapor may cause anesthetic effects. Inhalation of high concentrations of vapors may cause dizziness or suffocation. May affect behavior/central nervous system (dizziness, loss of coordination, coma). May affect behavior/central nervous system (headache, fatigue, lack of concentration, reduced memory, hallucinations, stupor, unconsciousness). May affect behavior/central nervous system (somnolence).
Ingestion: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. May cause abdominal pain. Aspiration into the lungs can cause chemical pneumonitis. Aspiration may lead to pulmonary edema. May affect the cardiovascular system (change in heart rate). May affect cardiovascular system (hypotension, cardiac arrhythmias). May affect respiration (dyspnea, respiratory depression). May affect urinary system (kidneys). May affect peripheral nervous system (peripheral nerve and sensation - spastic paralysis with or without sensory change). It may affect behavior/central nervous system (central nervous system depression, ataxia, general anesthetic). May affect behavior/central nervous system (dizziness, headache). May affect behavior central nervous system (irritability, hallucinations, coma).

Sensitization: No information available

Chronic Toxicity

Chronic Toxicity Prolonged or repeated skin contact may cause dermatitis and defatting, dryness, and cracking of the skin. Chronic exposure may cause central nervous system effects. Prolonged or repeated inhalation may affect the peripheral nervous system (weakness, paresthesia - a tingling, pricking, or numbness of the skin (known as the feeling of "pins and needles) generally of the hands and feet (extremities)). Prolonged or repeated ingestion may affect the liver. Prolonged or repeated inhalation may affect the liver. Prolonged or repeated inhalation may affect the kidneys. Prolonged or repeated inhalation may affect the brain. Prolonged or repeated inhalation may affect the blood (changes in serum composition, pigmented or nucleated red blood cells).

Carcinogenic effects: Not classifiable as a human carcinogen. Not classifiable as to its carcinogenicity to humans.

<table>
<thead>
<tr>
<th>Components</th>
<th>NTP</th>
<th>IARC</th>
<th>OSHA HCS - Carcinogens</th>
<th>ACGIH - Carcinogens</th>
<th>Australia - Prohibited Carcinogenic Substances</th>
<th>Australia - Notifiable Carcinogenic Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

Mutagenic Effects: No information available

Reproductive Effects: May cause adverse reproductive effects based on animal data. Experiments have shown reproductive toxicity effects on laboratory animals

Teratogenic Effects: May cause birth defects (teratogenic effects) based on animal test data. Showed teratogenic effects in animal experiments.


12. ECOLOGICAL INFORMATION

ECOTOXICITY

Toxicity to terrestrial and aquatic plants and animals: Information given is based on data on the components and the ecotoxicology of similar products

Product code: IS120
Product name: ISOPROPYL ALCOHOL, 70 PERCENT, USP
Ecotoxicity effects: Aquatic environment.

Aquatic toxicity:

*Isopropyl Alcohol - 67-63-0*

**Freshwater Algae Data:**
- 1000 mg/L EC50 Desmodesmus subspicatus 72 h
- 1000 mg/L EC50 Desmodesmus subspicatus 96 h

**Freshwater Fish Species Data:**
- 11130 mg/L LC50 Pimephales promelas 96 h static
- 9640 mg/L LC50 Pimephales promelas 96 h flow-through
- 1400000 µg/L LC50 Lepomis macrochirus 96 h

**Water Flea Data:**
- 13299 mg/L EC50 Daphnia magna 48 h

**Mobility:** No information available

**Persistence and degradability:** No information available

**Bioaccumulative potential:** No information available

### 13. DISPOSAL CONSIDERATIONS

**Waste from residues / unused products:**
Waste must be disposed of in accordance with Federal, State and Local regulation.

**Contaminated packaging:**
Empty containers should be taken for local recycling, recovery or waste disposal.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl Alcohol</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Water</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

### 14. TRANSPORT INFORMATION

**DOT**

- **UN-No:** UN1219
- **Proper Shipping Name:** Isopropanol, solution
- **Hazard Class:** 3
- **Packing Group:** II
- **Subsidiary Risk:** Not applicable
- **Marine Pollutant:** No data available
- **ERG No:** 129
- **DOT RQ (lbs):** No information available

**TDG (Canada)**

- **UN-No:** UN1219
- **Proper Shipping Name:** Isopropanol, solution
- **Hazard Class:** 3
- **Packing Group:** II
- **Subsidiary Risk:** No information available
- **Description:** No information available

**ADR**

- **UN-No:** UN1219
- **Proper Shipping Name:** Isopropanol (Isopropyl alcohol), solution
- **Hazard Class:** 3
- **Packing Group:** II
- **Subsidiary Risk:** No information available

Product code: IS120  
Product name: ISOPROPYL ALCOHOL, 70 PERCENT, USP
<table>
<thead>
<tr>
<th>Components</th>
<th>U.S. TSCA</th>
<th>Philippines (PICCS)</th>
<th>KOREA KECL</th>
<th>Japan ENCS</th>
<th>CHINA</th>
<th>Australia (AICS)</th>
<th>EINECS-No.</th>
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</thead>
<tbody>
<tr>
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<td>Present</td>
<td>Present KE-29363</td>
<td>Present (2)-207</td>
<td>Present</td>
<td>Present</td>
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<td>Present 231-791-2</td>
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</tbody>
</table>

**U.S. Regulations**

*Isopropyl Alcohol*

Massachusetts RTK: Present

**Product code:** IS120  
**Product name:** ISOPROPYL ALCOHOL, 70 PERCENT, USP

Chemicals Known to the State of California to Cause Cancer:
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

<table>
<thead>
<tr>
<th>Components</th>
<th>Carcinogen</th>
<th>Developmental Toxicity</th>
<th>Male Reproductive Toxicity</th>
<th>Female Reproductive Toxicity</th>
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</table>

CERCLA/SARA

<table>
<thead>
<tr>
<th>Components</th>
<th>CERCLA - Hazardous Substances and their Reportable Quantities</th>
<th>Section 302 Extremely Hazardous Substances and TPQs</th>
<th>Section 302 Extremely Hazardous Substances and RQs</th>
<th>Section 313 - Chemical Category</th>
<th>Section 313 - Reporting de minimis</th>
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<td>None</td>
<td>None</td>
<td>None</td>
<td>1.0 % de minimis concentration</td>
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U.S. TSCA

<table>
<thead>
<tr>
<th>Components</th>
<th>TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)</th>
<th>TSCA 8(d) - Health and Safety Reporting</th>
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</thead>
<tbody>
<tr>
<td>Water</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Canada

WHMIS hazard class:
B2  Flammable liquid
D2B  Toxic materials

Isopropyl Alcohol
B2  D2B including 70%

Water
Uncontrolled product according to WHMIS classification criteria

Canada Controlled Products Regulation:
This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

<table>
<thead>
<tr>
<th>Components</th>
<th>WHMIS Ingredient Disclosure List -</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl Alcohol</td>
<td>1 %</td>
</tr>
</tbody>
</table>

Inventory

<table>
<thead>
<tr>
<th>Components</th>
<th>Canada (DSL)</th>
<th>Canada (NDSL)</th>
</tr>
</thead>
</table>

Product code: IS120          Product name: ISOPROPYL ALCOHOL, 70 PERCENT, USP
Isopropyl Alcohol | Present | Not Listed
Water | Present | Not Listed

<table>
<thead>
<tr>
<th>Components</th>
<th>CEPA Schedule I - Toxic Substances</th>
<th>CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl Alcohol</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
<tr>
<td>Water</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

EU Classification

**R-phrase(s)**

No R-phrases listed.

**S-phrase(s)**

S7 - Keep container tightly closed.
S16 - Keep away from sources of ignition - No smoking.
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S24/25 - Avoid contact with skin and eyes.

<table>
<thead>
<tr>
<th>Components</th>
<th>Classification</th>
<th>Concentration Limits:</th>
<th>Safety Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl Alcohol</td>
<td>F; R11, Xi; R36, R67</td>
<td>No information</td>
<td>S2, S7, S16, S24/25, S26</td>
</tr>
<tr>
<td>Water</td>
<td></td>
<td>No information</td>
<td></td>
</tr>
</tbody>
</table>

The product is classified in accordance with Annex VI to Directive 67/548/EEC

**Indication of danger:**

F - Highly flammable.
Xi - Irritant.

**16. OTHER INFORMATION**

The MSDS format complies with ANSI Z400.1/Z129.1-2010 standards.

**Preparation Date:** 21-Jan-2014

**Reason for revision:** Not applicable

**Prepared by:** Sonia Owen

**Literature reference:** No information available
All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. The physical properties reported in this MSDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.