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

1.1. Product identifier

<table>
<thead>
<tr>
<th>Product form</th>
<th>Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade name</td>
<td>ISOPROPYL ALCOHOL 91%</td>
</tr>
<tr>
<td>Chemical name</td>
<td>2-propanol</td>
</tr>
<tr>
<td>CAS No</td>
<td>67-63-0</td>
</tr>
<tr>
<td>Product code</td>
<td>23200</td>
</tr>
</tbody>
</table>

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.3. Details of the supplier of the safety data sheet

Interstate Chemical Company, Inc.
2797 Freedland Road
Hermitage, PA 16148-0210 - United States
T 800-422-2436 - F (724) 509-1015
herm-eh&s@interstatechemical.com - www.interstatechemical.com

1.4. Emergency telephone number

Emergency number : For 24-Hour Emergency Information Call Chemtrec: +1 (800) 424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

| Flam. Liq. | H225 |
| STOT SE | H336 |

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) : ![Flammable](GHS02) ![Danger](GHS07)

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : 
- H225 - Highly flammable liquid and vapor
- H336 - May cause drowsiness or dizziness

Precautionary statements (GHS-US) : 
- P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
- P233 - Keep container tightly closed
- P240 - Ground/bond container and receiving equipment
- P241 - Use explosion-proof electrical/ventilating/lighting/... equipment
- P242 - Use only non-sparking tools
- P243 - Take precautionary measures against static discharge
- P261 - Avoid breathing fume, mist, spray, vapors
- P271 - Use only outdoors or in a well-ventilated area
- P280 - Wear protective gloves/protective clothing/eye protection/face protection
- P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
- P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
- P310 - Call a poison center, doctor, or, physician if exposed and conditions worsen or persist if you feel unwell
- P370+P378 - In case of fire: Use alcohol resistant foam, an extinguishing blanket, carbon dioxide (CO2). Water to extinguish
- P403+P233 - Store in a well-ventilated place. Keep container tightly closed
- P403+P235 - Store in a well-ventilated place. Keep cool
- P405 - Store locked up
- P501 - Dispose of contents/container to a hazardous or special waste collection point, an approved waste disposal plant, an authorized waste collection point, an industrial incineration plant, hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation
2.3. Other hazards
No additional information available

2.4. Unknown acute toxicity (GHS-US)
Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance
Name: ISOPROPYL ALCOHOL 91%
CAS No: 67-63-0

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier (CAS No)</th>
<th>%</th>
<th>Classification (GHS-US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-propanol</td>
<td>67-63-0</td>
<td>91</td>
<td>Flam. Liq. 2, H225 STOT SE 3, H336</td>
</tr>
</tbody>
</table>

Full text of H-phrases: see section 16

3.2. Mixture
Not applicable

4.1. Description of first aid measures
First-aid measures general: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation: 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.
First-aid measures after skin contact: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing.
First-aid measures after eye contact: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
First-aid measures after ingestion: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms/injuries after inhalation: May cause drowsiness or dizziness.

4.3. Indication of any immediate medical attention and special treatment needed
No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media
Unsuitable extinguishing media: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture
Fire hazard: Highly flammable liquid and vapor.
Explosion hazard: May form flammable/explosive vapor-air mixture.

5.3. Advice for firefighters
Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
General measures: Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

6.1.1. For non-emergency personnel
Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders
Protective equipment: Equip cleanup crew with proper protection. Avoid breathing dust/fume/gas/mist/vapors/spray.
Emergency procedures: Ventilate area.

6.2. Environmental precautions
Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.
6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No open flames. No smoking. Use only non-sparking tools. Avoid breathing fume, mist, spray. Use only outdoors or in a well-ventilated area.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical, lighting, ventilating equipment.

Storage conditions : Keep only in the original container in a cool, well ventilated place away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep in fireproof place. Keep container tightly closed.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Substance</th>
<th>ACGIH TWA (ppm)</th>
<th>ACGIH STEL (ppm)</th>
<th>Remark (ACGIH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISOPROPYL ALCOHOL 91%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>200 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>400 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSHA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSHA</td>
<td>OSHA PEL (TWA) (mg/m³)</td>
<td>980 mg/m³</td>
<td></td>
</tr>
<tr>
<td>OSHA</td>
<td>OSHA PEL (TWA) (ppm)</td>
<td>400 ppm</td>
<td></td>
</tr>
</tbody>
</table>

2-propanol (67-63-0)

<table>
<thead>
<tr>
<th>Substance</th>
<th>ACGIH TWA (ppm)</th>
<th>ACGIH STEL (ppm)</th>
<th>Remark (ACGIH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>200 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>400 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSHA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSHA</td>
<td>OSHA PEL (TWA) (mg/m³)</td>
<td>980 mg/m³</td>
<td></td>
</tr>
<tr>
<td>OSHA</td>
<td>OSHA PEL (TWA) (ppm)</td>
<td>400 ppm</td>
<td></td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Wear protective gloves.

Eye protection : Chemical goggles or safety glasses.

Respiratory protection : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.

Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Clear, colorless liquid.

Color : Colorless

Odor : No data available
ISOPROPYL ALCOHOL 91%
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Odor threshold: No data available
pH: ≈ 7
Relative evaporation rate (butyl acetate=1): No data available
Melting point: No data available
Freezing point: No data available
Boiling point: 180 - 212 °F
Flash point: ≈ 53 °F
Auto-ignition temperature: 399 °C
Decomposition temperature: No data available
Flammability (solid, gas): No data available
Vapor pressure: No data available
Relative vapor density at 20 °C: 2.07 (Air=1)
Relative density: 0.787 (Water=1)
Specific gravity / density: 6.56 lb/gal
Solubility: Water: Solubility in water of component(s) of the mixture:
Log Pow: 0.05 (Experimental value)
Log Kow: No data available
Viscosity, kinematic: No data available
Viscosity, dynamic: No data available
Explosive properties: No data available
Oxidizing properties: No data available
Explosive limits: No data available

9.2. Other information
No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity
No additional information available

10.2. Chemical stability
Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

10.3. Possibility of hazardous reactions
Not established.

10.4. Conditions to avoid
Direct sunlight. Extremely high or low temperatures. Open flame.

10.5. Incompatible materials
Strong acids. Strong bases.

10.6. Hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity: Not classified

<table>
<thead>
<tr>
<th>ISOPROPYL ALCOHOL 91%</th>
<th>( \text{C}_3\text{H}_7\text{OH} )</th>
<th>67-63-0</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>5045 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Experimental value; 5840 mg/kg bodyweight; Rat)</td>
<td></td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>12870 mg/kg (Rabbit; Experimental value; Equivalent or similar to OECD 402; 16.4; Rabbit)</td>
<td></td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>5045.000 mg/kg body weight</td>
<td></td>
</tr>
<tr>
<td>ATE US (dermal)</td>
<td>12870.000 mg/kg body weight</td>
<td></td>
</tr>
<tr>
<td>ATE US (vapors)</td>
<td>73.000 mg/l/4h</td>
<td></td>
</tr>
<tr>
<td>ATE US (dust, mist)</td>
<td>73.000 mg/l/4h</td>
<td></td>
</tr>
</tbody>
</table>
ISOPROPYL ALCOHOL 91%
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

2-propanol (67-63-0)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>5045 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Experimental value; 5840 mg/kg bodyweight; Rat)</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>12870 mg/kg (Rabbit; Experimental value; Equivalent or similar to OECD 402; 16.4; Rabbit)</td>
</tr>
<tr>
<td>LC50 inhalation rat (mg/l)</td>
<td>73 mg/l/4h (Rat)</td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>5045.000 mg/kg body weight</td>
</tr>
<tr>
<td>ATE US (dermal)</td>
<td>12870.000 mg/kg body weight</td>
</tr>
<tr>
<td>ATE US (vapors)</td>
<td>73.000 mg/l/4h</td>
</tr>
<tr>
<td>ATE US (dust, mist)</td>
<td>73.000 mg/l/4h</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Not classified</td>
</tr>
<tr>
<td>pH</td>
<td>≈ 7</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>Not classified</td>
</tr>
<tr>
<td>pH</td>
<td>≈ 7</td>
</tr>
<tr>
<td>Respiratory or skin sensitization</td>
<td>Not classified</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

ISOPROPYL ALCOHOL 91% (67-63-0)

IARC group: 3 - Not classifiable

2-propanol (67-63-0)

IARC group: 3 - Not classifiable

Reproductive toxicity: Not classified

Specific target organ toxicity (single exposure): May cause drowsiness or dizziness.

Specific target organ toxicity (repeated exposure): Not classified

Aspiration hazard: Not classified

Potential Adverse human health effects and symptoms: Based on available data, the classification criteria are not met.

Symptoms/injuries after inhalation: May cause drowsiness or dizziness.

SECTION 12: Ecological information

12.1. Toxicity

ISOPROPYL ALCOHOL 91% (67-63-0)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>4200 mg/l (96 h; Rasbora heteromorpha; Flow-through system)</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>&gt; 10000 mg/l (48 h; Daphnia magna)</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>9640 mg/l (96 h; Pimephales promelas; Lethal)</td>
</tr>
<tr>
<td>EC50 Daphnia 2</td>
<td>13299 mg/l (48 h; Daphnia magna)</td>
</tr>
</tbody>
</table>

2-propanol (67-63-0)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>4200 mg/l (96 h; Rasbora heteromorpha; Flow-through system)</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>&gt; 10000 mg/l (48 h; Daphnia magna)</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>9640 mg/l (96 h; Pimephales promelas; Lethal)</td>
</tr>
<tr>
<td>EC50 Daphnia 2</td>
<td>13299 mg/l (48 h; Daphnia magna)</td>
</tr>
<tr>
<td>Threshold limit algae 1</td>
<td>&gt; 1000 mg/l (72 h; Scenedesmus subspicatus; Growth rate)</td>
</tr>
<tr>
<td>Threshold limit algae 2</td>
<td>1800 mg/l (72 h; Algae; Cell numbers)</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

ISOPROPYL ALCOHOL 91% (67-63-0)

Persistence and degradability: Not established.

2-propanol (67-63-0)

Persistence and degradability: Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. No (test)data on mobility of the substance available.

Biochemical oxygen demand (BOD): 1.19 g O₂/g substance

Chemical oxygen demand (COD): 2.23 g O₂/g substance
ISOPROPYL ALCOHOL 91%
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

2-propanol (67-63-0)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ThOD</td>
<td>2.40 g O₂/g substance</td>
</tr>
<tr>
<td>BOD (% of ThOD)</td>
<td>0.49 % ThOD</td>
</tr>
</tbody>
</table>

12.3. Bioaccumulative potential

ISOPROPYL ALCOHOL 91% (67-63-0)

Log Pow: 0.05 (Experimental value)
Bioaccumulative potential: Not established.

2-propanol (67-63-0)

Log Pow: 0.05 (Experimental value)
Bioaccumulative potential: Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

2-propanol (67-63-0)

Surface tension: 0.021 N/m (25 °C)

12.5. Other adverse effects

Effect on ozone layer: 
Effect on the global warming: No known ecological damage caused by this product.
Other information: Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations: Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to...
Additional information: Handle empty containers with care because residual vapors are flammable.
Ecology - waste materials: Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT

Transport document description: UN1219 Isopropanol, 3, II
UN-No.(DOT): UN1219
Proper Shipping Name (DOT): Isopropanol
Department of Transportation (DOT) Hazard Classes: 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Hazard labels (DOT): 3 - Flammable liquid

Packing group (DOT): II - Medium Danger
DOT Special Provisions (49 CFR 172.102): IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / (1 + a (tr - tf)) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.

DOT Packaging Exceptions (49 CFR 173.xxx): 4b;150
DOT Packaging Non Bulk (49 CFR 173.xxx): 202
DOT Packaging Bulk (49 CFR 173.xxx): 242
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27): 5 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75): 60 L

02/26/2015 EN (English US) 6/8
ISOPROPYL ALCOHOL 91%
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

DOT Vessel Stowage Location: B - (i) The material may be stowed “on deck” or “under deck” on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) “On deck only” on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.

Additional information
Emergency Response Guide (ERG) Number: 129
Other information: No supplementary information available.

ADR
No additional information available

Transport by sea
UN-No. (IMDG): 1219
Proper Shipping Name (IMDG): ISOPROPANOL (ISOPROPYL ALCOHOL)
Class (IMDG): 3 - Flammable liquids
Packing group (IMDG): II - substances presenting medium danger

Air transport
UN-No.(IATA): 1219
Proper Shipping Name (IATA): Isopropanol
Class (IATA): 3 - Flammable Liquids
Packing group (IATA): II - Medium Danger

SECTION 15: Regulatory information
15.1. US Federal regulations
ISOPROPYL ALCOHOL 91% (67-63-0)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on United States SARA Section 313
2-propanol (67-63-0)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on United States SARA Section 313

15.2. International regulations
CANADA

EU-Regulations
Classification according to Regulation (EC) No. 1272/2008 [CLP]
Not classified
Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]
Not classified

15.2.2. National regulations
No additional information available

15.3. US State regulations
ISOPROPYL ALCOHOL 91%(67-63-0)
State or local regulations
U.S. - New Jersey - Right to Know Hazardous Substance List
ISOPROPYL ALCOHOL 91%
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

2-propanol (67-63-0)
U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Abbreviations and acronyms:
- European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
- European Agreement concerning the International Carriage of Dangerous Goods by Road.
- Acute Toxicity Estimate.
- Bioconcentration factor.
- Classification Labelling Packaging Regulation.
- Derived Minimal Effect level.
- Derived-No Effect Level.
- Dangerous Preparations Directive 1999/45/EC.
- Dangerous Substances Directive 67/548/EEC.
- Median effective concentration.
- International Agency for Research on Cancer.
- International Air Transport Association.
- International Maritime Dangerous Goods.
- Median lethal concentration.
- Lowest Observed Adverse Effect Level.
- No-Observed Adverse Effect Concentration.
- No-Observed Adverse Effect Level.
- No-Observed Effect Concentration.
- Organisation for Economic Co-operation and Development.
- Persistent Bioaccumulative Toxic.
- Predicted No-Effect Concentration.
- Regulations concerning the International Carriage of Dangerous Goods by Rail.
- Safety Data Sheet.
- Sewage treatment plant.
- Median Tolerance Limit.
- Very Persistent and Very Bioaccumulative.

Other information:
- None.

Full text of H-phrases:

| Flam. Liq. 2 | Flammable liquids Category 2 |
| STOT SE 3 | Specific target organ toxicity (single exposure) Category 3 |
| H225 | Highly flammable liquid and vapor |
| H336 | May cause drowsiness or dizziness |

NFPA health hazard:
- 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA fire hazard:
- 3 - Liquids and solids that can be ignited under almost all ambient conditions.

NFPA reactivity:
- 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

HMIS III Rating
- Health: 2 Moderate Hazard - Temporary or minor injury may occur
- Flammability: 3 Serious Hazard
- Physical: 0 Minimal Hazard
- Personal Protection: D

SDS US (GHS HazCom 2012)
Interstate Chemical Company, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.