1. IDENTIFICATION

Product identifier: Crown Isopropyl Alcohol
SDS Number: CR.IPA

Manufacturer Name: Packaging Service Co., Inc.
Address: 1904 Mykawa Road
          Pearland, TX 77581
          1-281-485-1458

Emergency phone number:: CHEMTREC: 1-800-424-9300 (USA)
                        CANUTEC: 1-613-996-6666 (Canada)

Recommended use: Restrictions on use: Use only as directed.

Date of Preparation: March 10, 2017

2. HAZARD(S) IDENTIFICATION

Classification:

<table>
<thead>
<tr>
<th>Physical</th>
<th>Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable Liquid Category 2</td>
<td>Eye Irritation Category 2</td>
</tr>
<tr>
<td></td>
<td>Specific Target Organ Toxicity – Single Exposure</td>
</tr>
<tr>
<td></td>
<td>Category 3 (CNS effects)</td>
</tr>
</tbody>
</table>

Danger!

Hazard statement(s)
Highly flammable liquid and vapor.
Causes serious eye irritation.
May cause drowsiness or dizziness.

Precautionary statement(s)
Keep away from flames and hot surfaces. – No smoking.
Keep container tightly closed.
Ground or bond container and receiving equipment.
Use explosion-proof electrical and lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing mist, vapors or spray.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear eye protection.
Store in a well-ventilated place. Keep cool. Keep container tightly closed.
Store locked up.
Dispose of contents and container in accordance with local and national regulations.
all contaminated clothing. Rinse skin with water.
In case of fire: Use water spray, carbon dioxide, dry chemical or alcohol-resistant foam to extinguish.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No.</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl Alcohol</td>
<td>67-63-0</td>
<td>99-100%</td>
</tr>
</tbody>
</table>

The specific identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

**Inhalation:** Remove victim to fresh air. If irritation occurs, breathing is difficult, or dizziness or drowsiness occur, get medical attention.
**Skin contact:** Remove contaminated clothing. Wash skin thoroughly with soap and water for several minutes. If irritation develops, get medical attention. Launder clothing before reuse.
**Eye contact:** Immediately flush eyes with water for at least 15 minutes while lifting the upper and lower lids. Get medical attention if irritation occurs and persists.
**Ingestion:** Do not induce vomiting unless directed to do so by a medical professional. Never give anything by mouth to a person who is unconscious or convulsing. Get medical attention if symptoms develop.

**Most important symptoms/effects, acute and delayed:** May cause skin irritation. Causes serious eye irritation. Inhalation of mists may cause upper respiratory tract irritation or central nervous effects with drowsiness and dizziness.

**Indication of immediate medical attention and special treatment, if necessary:** Immediate medical attention should not be required.

5. FIRE-FIGHTING MEASURES

**Extinguishing media:** Use water spray, carbon dioxide, dry chemical or alcohol-resistant foam to extinguish a fire.

**Specific hazards arising from the chemical:** This product is highly flammable. Vapors form explosive mixtures with air in confined or poorly ventilated areas. Vapors are heavier than air and will travel along surfaces to remote ignition sources and flash back. Closed containers may explode if exposed to extreme heat.

**Special protective equipment and precautions for fire-fighters:** Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for all fires involving chemicals. Cool fire exposure containers with water.

6. ACCIDENTAL RELEASE MEASURES
Personal precautions, protective equipment, and emergency procedures: Evacuate spill area and keep unprotected personnel away. Remove all sources of ignition. Ventilate area with explosion proof equipment. Wear appropriate protective clothing.

Environmental Precautions: Prevent spill from entering sewers and water courses. Report releases as required by local and national authorities.

Methods and materials for containment and cleaning up: Collect using an inert absorbent material and place in appropriate container for disposal. Clean spill area thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling: Avoid contact with eyes, skin and clothing. Avoid breathing vapors. Use only with adequate ventilation. Wash exposed skin thoroughly with soap and water after use. Do not eat, drink or smoke in the work area. Keep product away from heat, sparks, flames and all other sources of ignition. No smoking in storage or use areas. Keep containers closed when not in use.

Conditions for safe storage, including any incompatibilities: Protect containers from physical damage. Store in a cool, well-ventilated area away from ignition sources and incompatible materials. Protect from physical damage. Store away from acids and oxidizers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure guidelines:

<table>
<thead>
<tr>
<th>Isopropyl Alcohol</th>
<th>400 ppm TWA OSHA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>200 ppm TWA, 400 ppm STEL ACGIH TLV</td>
</tr>
</tbody>
</table>

Appropriate engineering controls: Use with adequate general or local exhaust ventilation to keep exposures below occupational exposure limits and to minimize exposure levels. Use explosion proof equipment where required. Open doors and use fans to achieve good air movement. If possible, use local exhaust to remove vapors.

Individual protection measures:

Respiratory protection: None needed under normal use conditions. If exposure limits are exceeded, a NIOSH approved respirator with organic vapor cartridges or supplied air respirator is recommended. Selection of respiratory protection depends on the contaminant type, form and concentration. Select in accordance with OSHA 1910.134 and good Industrial Hygiene practice.

Skin protection: Impervious gloves recommended if contact is possible.

Eye protection: Chemical safety goggles recommended if splashing is possible.

Other: Suitable washing and eye flushing facilities should be available in the work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.): Water-white liquid

Odor: Alcohol

<table>
<thead>
<tr>
<th>Odor threshold: 22-40 ppm</th>
<th>pH: Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point/freezing point: -87.9°C</td>
<td>Boiling Point: 177-182°F / 80-83°C</td>
</tr>
<tr>
<td>Flash point: 56°F (13°C) (TCC)</td>
<td>Evaporation rate: 1.2 (Butyl acetate = 1)</td>
</tr>
<tr>
<td>Flammability (solid, gas): Not applicable</td>
<td>VOC: 100.0% (Calculated using CARB)</td>
</tr>
</tbody>
</table>
Flammable limits: LEL: 2.0  UEL: 12.0
Vapor pressure: 33.0 mmHg @ 20°C  Vapor density: 2.1 (air = 1)
Relative density: 0.787  Solubility(ies): Completely soluble in water
Partition coefficient: n-octanol/water: 0.05  Auto-ignition temperature: 750°F (398°C)
Decomposition temperature: Not available  Viscosity: 2.038 mPa s @ 25°C

10. STABILITY AND REACTIVITY

Reactivity: Not reactive under normal conditions of use.
Chemical stability: Stable.
Possibility of hazardous reactions: None known.
Conditions to avoid: Heat, sparks, electrical equipment, and flames.
Incompatible materials: Avoid oxidizing agents acetaldehyde, chlorine, ethylene oxide, acids, isocyanates.
Hazardous decomposition products: Thermal decomposition may yield carbon oxides.

11. TOXICOLOGICAL INFORMATION

Acute effects of exposure:
Inhalation: Inhalation of vapors or mists may cause slight irritation of the mucous membranes and upper respiratory tract. May cause central nervous effects including drowsiness and dizziness.
Ingestion: Swallowing may cause irritation to the stomach with nausea, vomiting and diarrhea and nervous system effects similar to inhalation.
Skin contact: May cause slight irritation with redness and itching.
Eye contact: May cause moderate to severe irritation with redness, tearing and pain.

Chronic Effects: None known.
Sensitization: Not a sensitizer.
Germ Cell Mutagenicity: Not a germ cell mutagen.
Reproductive Toxicity: Isopropanol has not been shown to cause reproductive or developmental toxicity.
Carcinogenicity: Isopropanol is not listed as carcinogen or suspected carcinogen by IARC, NTP, ACGIH or OSHA.

Acute Toxicity Values:
Isopropanol: Oral rat LD50 5850 mg/kg; Inhalation rat LC50 1600 ppm; Skin rabbit LD50 16,400 mg/kg

12. ECOLOGICAL INFORMATION

This product is not expected to be harmful to aquatic organisms according to the GHS criteria.

Ecotoxicity values:
Isopropanol: Fish LC50 1000 ppm/24hr

Persistence and degradability: Isopropanol is readily biodegradable.
Bioaccumulative potential: Isopropanol has a low potential to bioaccumulate.
Mobility in soil: No data available.
Other adverse effects: None known.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all local, state and federal regulations.
14. TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th></th>
<th>UN Number</th>
<th>Proper shipping name</th>
<th>Hazard Class</th>
<th>Packing Group</th>
<th>Environmental Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT- Non-bulk</td>
<td>UN1219</td>
<td>Isopropanol</td>
<td>3</td>
<td>II</td>
<td>None</td>
</tr>
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<td>UN1219</td>
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<td>3</td>
<td>II</td>
<td>None</td>
</tr>
</tbody>
</table>

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not applicable – product is transported only in packaged form.

Special precautions: None known.

15. REGULATORY INFORMATION

Safety, health, and environmental regulations specific for the product in question.

CERCLA: This product is not subject to reporting under CERCLA. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Refer to OSHA Hazard Categories in Section 2

EPA SARA 313: This product contains the following chemicals regulated under SARA Title III, section 313: None

EPA TSCA Inventory: All of the components of this product are listed on the TSCA inventory.

California Proposition 65: Warning: This product does not contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

CANADA:
Canadian CEPA: All the components of this product are listed on the Canadian DSL.

16. OTHER INFORMATION

NFPA Rating: Health = 2  Flammability = 3  Instability = 0
HMIS Rating: Health = 2  Flammability = 3  Physical Hazard = 0

SDS Revision History: Correct signal word
Date of preparation: March 10, 2017
Date of last revision: August 18, 2014