## Safety Data Sheet (SDS)

### SECTION I - IDENTIFICATION

**Product Name:** Fiber Optic Cleaning Solution  
**Product No.:** 4016  
**Manufacturer:** Rainbow Technology Corporation 1-800-637-6047  
**Contact:** Larry Joe Steeley, Jr.  
**Emergency Phone No. (24 Hrs.):** CHEM-TEL 1-800-255-3924  
**SDS Issue Date:** 06/01/2020  
**SDS Replaces Date:** 09/16/2013

### SECTION II – HAZARDS IDENTIFICATION

**CLASSIFICATION:** Flammable Liquid: Category 2  
**Eye Irritant:** Category 2A  
**Specific Target Organ Toxicity (Single Exposure):** Category 3  
**HAZARD STATEMENT(S):**  
- Danger: Highly flammable liquid and vapor  
- Causes serious eye irritation. May cause drowsiness and dizziness.  

This product contains the following percentage of chemicals of unknown toxicity: 0%  

**PRECAUTIONARY STATEMENTS:** Keep away from heat, sparks, open flames, and hot surfaces. -No smoking. Keep container tightly closed. Wear protective gloves and eye protection. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention. In case of fire use dry chemical, foam, or carbon dioxide. Store in a well-ventilated place. Keep container tightly closed and cool. Store locked up. Dispose of contents and container in accordance with local, state, and national regulations. Wash hands thoroughly after handling. Avoid breathing fumes, mist, or vapors. Use only outdoors or in a well-ventilated area. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor if you feel unwell. For large quantities: Ground or bond container and receiving equipment. Use explosion-proof electrical, ventilating, and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

**SYMBOL:**  
**HAZARDS NOT OTHERWISE CLASSIFIED: N/A**

### SECTION III – COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>HAZARDOUS INGREDIENT</th>
<th>CAS NUMBER</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl Alcohol</td>
<td>67-63-0</td>
<td>100%</td>
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### SECTION IV - FIRST AID MEASURES

**EYES:** Remove contact lenses. Flush with water for at least 15 minutes. See a physician if irritation persists.  
**INGESTION:** Rinse mouth with water. Do not induce vomiting unless directed by medical authority. Seek medical attention if irritation persists.  
**INHALATION:** Move to fresh air. If breathing is difficult, administer oxygen. If heartbeat or breathing seems irregular seek immediate medical attention.  
**SKIN:** Immediately wash with soap and water for 15 minutes. Remove contaminated clothing and shoes immediately. Seek medical attention if irritation persists.  
**ACUTE HEALTH HAZARDS:** Eyes: redness, tearing, blurred vision  
Inhalation: Anesthetic, irritation, Central Nervous System depression  
**CHRONIC HEALTH HAZARDS:** Dermatitis may occur due to long-term irritation.  
**NOTE TO PHYSICIAN:** There is no specific treatment regimen. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

### SECTION V – FIRE-FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Dry chemical, foam, or Carbon Dioxide (CO₂).
UNSUITABLE EXTINGUISHING MEDIA: N/A
SPECIAL FIRE FIGHTING PROCEDURES: Wear NIOSH approved Self Contained Breathing Apparatus with a full face piece operated in a positive pressure demand mode with full body protective clothing when fighting fires.
UNUSUAL FIRE AND EXPLOSION HAZARDS: FLAMMABLE. Keep away from heat, sparks, open flames and other sources of ignition.

SECTION VI – ACCIDENTAL RELEASE MEASURES

PERSONAL PROTECTIVE EQUIPMENT: Refer to section VIII for proper Personal Protective Equipment.
SPILL: Contain spill and eliminate ignition sources and ventilate area. Prevent spill from entering sewers, storm drains, and natural waterways. Use non-combustible material like vermiculite, sand or earth for larger spills.
WASTE DISPOSAL: Dispose of in accordance with federal, state, and local regulations. Do not reuse container and recycle or place in trash collection. Drums and pails should be offered for recycling.
RCRA STATUS: Product should be fully characterized prior to disposal (40 CFR 261).

SECTION VII – HANDLING AND STORAGE

HANDLING AND STORAGE: Do not use or store near heat or open flame. Store in cool dry place. Follow all label instructions. Vapors may accumulate in low lying areas.
INCOMPATIBILITY: Strong acids

SECTION VIII – EXPOSURE CONTROLS/PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>HAZARDOUS INGREDIENT</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl Alcohol</td>
<td>500 ppm</td>
<td>400 ppm</td>
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</table>

ENGINEERING CONTROLS / VENTILATION: Local ventilation/exhaust adequate to maintain vapor concentrations below PEL/TLV
RESPIRATORY PROTECTION: Wear NIOSH/MSHA approved organic vapor respiratory protection if exposure limits are exceeded.
PERSONAL PROTECTIVE EQUIPMENT: Safety glasses and chemical resistant gloves
ADDITIONAL MEASURES: Above recommended limits follow OSHA CFR 1910.134

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear, Colorless Liquid
ODOR: Isopropyl alcohol odor
ODOR THRESHOLD: 7.8mg/m³
BOILING POINT: 82.3°C
FREEZING POINT: N/D
FLAMMABILITY: Highly Flammable Liquid
FLASH POINT: 11.7°C (53°F)
AUTOIGNITION TEMPERATURE: 455°C
LOWER FLAMMABILITY LIMIT: 2.0
UPPER FLAMMABILITY LIMIT: 12
VAPOR PRESSURE (mm Hg): 33 mmHG @ 20°C
VAPOR DENSITY (AIR=1): 2.1
EVAPORATION RATE: >7
SPECIFIC GRAVITY (H2O=1): .770
pH: N/A
SOLIDS (%): N/D
SOLUBILITY IN WATER: 100%
PARTITION COEFFICIENT: n-OCTANOL/WATER (K<sub>ow</sub>): N/D
VOLATILITY INCLUDING WATER (%): 100%
VOLATILE ORGANIC COMPOUNDS (VOC): 100%
DIELECTRIC STRENGTH (Volts): N/D
DECOMPOSITION TEMPERATURE: N/D
VISCOITY: N/D
SECTION X – STABILITY AND REACTIVITY DATA

REACTIVITY: Chemically active metals and acids
CHEMICAL STABILITY: Stable
CONDITIONS TO AVOID: Do not mix with strong acids.
INCOMPATIBILITY: Strong acids
HAZARDOUS DECOMPOSITION OR BY-PRODUCT: Oxides of carbon
POSSIBLE HAZARDOUS REACTIONS: Will not occur

SECTION XI – TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: Isopropyl Alcohol (67-63-0) LD_{50} (Oral, Rat) 5045mg/kg. LD_{50} (Dermal, Rabbit) 12,800mg/kg.

ROUTES OF ENTRY: Eyes, Ingestion, Inhalation, Skin
EYES: Causes irritation, burning, redness, tearing.
INGESTION: Causes gastrointestinal irritation, headaches, nausea, diarrhea, vomiting, abdominal cramps.
INHALATION: Causes dizziness, headaches, nausea, central nervous system depression, excessive or prolonged exposure may cause unconsciousness.
SKIN: Causes dryness and cracking.

MEDICAL CONDITION AGGRAVATED: May aggravate existing dermatitis.
ACUTE HEALTH HAZARDS: Eyes: redness, tearing, blurred vision
Inhalation: Anesthetic, irritation, Central Nervous System depression
CHRONIC HEALTH HAZARDS: Dermatitis may occur due to long-term irritation.
CARCINOGENICITY: OSHA: No ACGIH: No NTP: No IARC: No OTHER: No

SECTION XII – ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: Isopropyl Alcohol (67-63-0) LC_{50} (Fathead Minnow) 64,000 mg/l 96hrs.

BIODEGRADABILITY: This product is biodegradable.
BIOACCUMULATION: This product is not expected to bioaccumulate.
SOIL MOBILITY: This product is mobile in soil.
OTHER ECOLOGICAL HAZARDS: None Known

SECTION XIII – DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Dispose of in accordance with federal, state, and local regulations. Do not reuse container and recycle or place in trash collection. Drums and pails should be offered for recycling.
RCRA STATUS: Product should be fully characterized prior to disposal (40 CFR 261).

SECTION XIV - TRANSPORTATION INFORMATION

PROPER SHIPPING NAME: Isopropanol
HAZARD CLASS/DIVISION: 3
UN/NA NUMBER: UN 1219
PACKAGING GROUP: II

AIR SHIPMENT PROPER SHIPPING NAME: Isopropanol
HAZARD CLASS/DIVISION: 3
UN/NA NUMBER: UN 1219

SHIPPING BY WATER: VESSEL (IMO/IMDG)
PROPER SHIPPING NAME: Isopropanol
HAZARD CLASS/DIVISION: 3
UN/NA NUMBER: UN 1219
ENVIRONMENTAL HAZARDS WATER: N/A
TSCA STATUS: All Chemicals are listed or exempt.
CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): None
SARA 313 REPORTABLE INGREDIENTS: None
INTERNATIONAL REGULATIONS: All components are listed or exempted.

SECTION XVI - ADDITIONAL INFORMATION

PREPARATION BY: Jonathon Jarvis
DATE PREPARED: 09/16/2013
REVISION DATE: 09/16/2013

N/A = Not Applicable; N/D = Not Determined

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