

## MATERIAL SAFETY DATA SHEET

### E-Z ISOPROPYL ALCOHOL

**EMERGENCY CONTACT:** FOR CHEMICAL EMERGENCY - SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT,  
CALL CHEMTREC AT 1-(800)-424-9300, DAY OR NIGHT.

| <u>INDEX</u>      | <u>HMIS</u>     |   | <u>NFPA</u>  |   |
|-------------------|-----------------|---|--------------|---|
| 4 - Severe        | Health          | 1 | Health       | 1 |
| 3 - Serious       | Flammability    | 3 | Flammability | 3 |
| 2 - Moderate      | Physical Hazard | 0 | Reactivity   | 0 |
| 1 - Slight        |                 |   |              |   |
| 0 - Insignificant |                 |   |              |   |

\* denotes chronic hazard

### Section 2. COMPOSITION/INFORMATION ON INGREDIENTS

| <u>INGREDIENT(S)</u> | <u>CAS Number</u> | <u>%( by volume)</u> |
|----------------------|-------------------|----------------------|
| ISOPROPANOL          | 67-63-0           | 99.0-100.0           |

### Section 3. HAZARDS IDENTIFICATION

#### POTENTIAL HEALTH EFFECTS:

##### EYE:

Can cause eye irritation. Symptoms include stinging, tearing, redness and swelling of eyes.

##### SKIN:

May cause mild skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, drying and cracking of skin, and skin burns. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

##### SWALLOWING:

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury. Exposure causes severe irritation of the gastrointestinal tract.

##### INHALATION:

Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms usually occur at air concentrations higher than the recommended exposure limits (See Section 8).

##### SYMPTOMS OF EXPOSURE:

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), low blood pressure, mild, temporary changes in the liver, effects on heart rate, respiratory depression (slowing of the breathing rate), loss of coordination, confusion, lung edema (fluid buildup in the lung tissue), kidney damage, coma.

##### TARGET ORGAN EFFECTS:

Breathing isopropanol vapors has caused damage to the lining of the middle ear in experimental animals. The relevance of this finding to humans is uncertain. Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: mild, reversible liver effects.

##### DEVELOPMENTAL INFORMATION:

This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies.

Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

**CANCER INFORMATION:**

Based on the available information, this material cannot be classified with regard to carcinogenicity. This material is not listed as a carcinogen by the International Agency for Research on Cancer, the National Toxicology Program, or the Occupational Safety and Health Administration.

**OTHER HEALTH EFFECTS:**

No Data

**PRIMARY ROUTE(S) OF ENTRY:**

Inhalation, Skin absorption, Skin contact, Eye contact, Ingestion.

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**SECTION 4. FIRST AID MEASURES**

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**EYES:**

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

**SKIN:**

Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

**SWALLOWING:**

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

**INHALATION:**

If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

**NOTE TO PHYSICIANS:**

This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (See Section 3 - Swallowing) when deciding whether to induce vomiting. Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: skin, lung (for example, asthma-like conditions), kidney. Administration of high doses of isopropanol in combination with known hepatotoxic chemicals resulted in enhanced liver toxicity in experimental animals.

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**Section 5. FIRE FIGHTING MEASURES**

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**FLASH POINT:**

53.0 F (11.6 C) TCC

**EXPLOSIVE LIMIT:**

(for product) Lower 2.0% Upper 12.0%

**AUTOIGNITION TEMPERATURE:**

750.0 F (398.8 C)

**HAZARDOUS PRODUCTS OF COMBUSTION:**

May form: Carbon dioxide and carbon monoxide.

**FIRE AND EXPLOSION HAZARDS:**

Vapors are heavier than air and may travel along the ground or may be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electric motors, static discharge, or other ignition sources at locations distant from material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.

**EXTINGUISHING MEDIA:**

Alcohol foam, carbon dioxide, dry chemical.

**FIRE FIGHTING INSTRUCTIONS:**

Water may be ineffective. Water may be used to keep fire-exposed containers cool until fire is out. Wear a self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of this MSDS.

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## Section 6. ACCIDENTAL RELEASE MEASURES

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### SMALL SPILL:

Absorb liquid on vermiculite, floor absorbent or other absorbent material.

### LARGE SPILL:

Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal. Per good environmental management practices, prevent run-off to sewers, streams or other bodies of water. Stop spill at the source. Cover sewer grates and dike the spill. Absorb spilled material on to absorbents. Shovel materials into container. Close container tightly and dispose of properly.

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## Section 7. HANDLING AND STORAGE

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### HANDLING:

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. All five - gallon pails and larger metal containers, including tank cars and tank trucks, should be grounded and/or bonded when material is transferred. **WARNING.** Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment, may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions.

### STORAGE

Small quantities of peroxides may form on prolonged storage. Exposure to light and/or air significantly increases the rate of peroxide formation. If evaporated to a residue, the mixture of peroxides and isopropanol may explode when exposed to heat or shock.

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## Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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### EYE PROTECTION:

Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

### SKIN PROTECTION:

Wear resistant gloves (consult your safety equipment supplier). To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

### RESPIRATORY PROTECTIONS:

If workplace exposure limit(s) of product or any component is exceeded (see exposure guidelines), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

### ENGINEERING CONTROLS:

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

### EXPOSURE GUIDELINES:

#### COMPONENT

ISOPROPANOL (67-63-0)

OSHA PEL 400.000 ppm - TWA

OSHA VPEL 400.000 ppm - TWA

OSHA VPEL 500.000 ppm - STEL

ACGIH TLV 200.000 ppm - TWA  
ACGIH TLV 400.000 ppm - STEL

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Section 9. PHYSICAL AND CHEMICAL PROPERTIES

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BOILING POINT: (for product) 180.0 F (82.2 C) @ 760 mmHg

VAPOR PRESSURE: (for product) 33.000 mmHg @ 68.00 F

SPECIFIC VAPOR DENSITY: 2.070 @ AIR = 1

SPECIFIC GRAVITY: .789 @ 60.00 F

LIQUID DENSITY 6.550 lbs/gal @ 68.00 F  
.789 kg/l @ 15.60 C

PERCENT VOLATILES: 100.0%

VOLATILE ORGANIC COMPOUNDS (VOC): 100.000%  
789.000 g/l  
6.550 lbs/gal

EVAPORATION RATE: 7.70 (ETHYL ETHER)

VISCOSITY: 2.4 cps

APPEARANCE: TRANSPARENT

FREEZING POINT: -128.0 F (-88.8 C)

STATE: LIQUID

MOLECULAR WEIGHT: 60.1

PHYSICAL FORM: NEAT

SOLUBILITY IN WATER: 100%

COLOR: CLEAR, PT-CO COLOR 10 MAX

OCTANOL/WATER PARTITION COEFFICIENT: 1.400

ODOR: SLIGHT ETHANOL/ACETONE-LIKE

pH: NO DATA

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Section 10. STABILITY AND REACTIVITY

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HAZARDOUS POLYMERIZATION:

Product will not undergo hazardous polymerization.

HAZARDOUS DECOMPOSITION:

May form: Carbon dioxide and carbon monoxide.

CHEMICAL STABILITY:

Stable.

INCOMPATIBILITY:

Avoid contact with: acids, aldehydes, alkalis, amines, chlorinated hydrocarbons, chlorine, ethylene oxide, isocyanates, strong oxidizing agents. Do not use with aluminum equipment at temperatures above 120 degrees F.

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Section 11. TOXICOLOGICAL INFORMATION

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No data

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Section 12. ECOLOGICAL INFORMATION

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No data

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Section 13. DISPOSAL CONSIDERATION

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WASTE MANAGEMENT INFORMATION:

Dispose of in accordance with all applicable local, state and federal regulations.

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Section 14. TRANSPORT INFORMATION

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DOT INFORMATION - 49 CFR 172.101

DOT DESCRIPTION:

ISOPROPANOL, 3, UN1219, II

CONTAINER/MODE:

55 GAL DRUM

NOS COMPONENT:

Not Applicable

RQ (Reportable Quantity) - 49 CFR 172.101

Not applicable

OTHER TRANSPORTATION INFORMATION

The Transport Information may vary with the container and mode of shipment.

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Section 15. REGULATORY INFORMATION

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US FEDERAL REGULATIONS:

TSCA (Toxic Substances Control Act) Status

TSCA (UNITED STATES) The intentional ingredients of this product are listed.

CERCLA RQ - 40 CFR 302.4 (a)

None listed

SARA 302 COMPONENTS - 40 CFR 355 APPENDIX A

None

Section 311/312 Hazard Class - 40 CFR 370.2

Immediate (X)    Delayed (X)                      Fire (X)                      Reactive ( )

Sudden Release of Pressure ( )

SARA 313 Components - 40 CFR 372.65

None

OSHA Process Safety Management 29 CFR 1910

None Listed

EPA Accidental Release Prevention 40 CFR 68

None Listed

INTERNATIONAL REGULATIONS:

INVENTORY STATUS:

AICS (AUSTRALIA)

The intentional ingredients of this product are listed.

CICS (CHINESE)

The intentional ingredients of this product are listed.

DSL (CANADA)

The intentional ingredients of this product are listed.

ECL (SOUTH KOREA)

The intentional ingredients of this product are listed.

EINECS (EUROPE)

The intentional ingredients of this product are listed.

ENCS (JAPAN)

The intentional ingredients of this product are listed.

IECSC (CHINA)

The intentional ingredients of this product are listed.

PICCS (PHILIPPINES)

The intentional ingredients of this product are listed.

SWISS (SWITZERLAND)

The intentional ingredients of this product are listed.

STATE AND LOCAL REGULATIONS:

CALIFORNIA PROPOSITION 65:

None

NEW JERSEY RTK LABEL INFORMATION:

ISOPROPYL ALCOHOL 67-63-0

PENNSYLVANIA RTK LABEL INFORMATION:

2-PROPANOL 67-63-0

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