**Material Safety Data Sheet**

**Section 1. Product and Company Identification**

**Product Name** Isopropanol Alcohol  
**Product Code** PX1830  
**Manufacturer** EMD Chemicals Inc.  
P.O. Box 70  
480 Democrat Road  
Gibbstown, N.J. 08027  
Prior to January 1, 2003 EMD Chemicals was EM Science, a Division of EM Industries, Inc.

**For More Information Call**  
856-423-6300 Technical Service  
Monday-Friday: 8:00 AM - 5:00 PM

**In Case of Emergency Call**  
800-424-9300 CHEMTREC (USA)  
613-996-6666 CANUTEC (Canada)  
24 Hours/Day: 7 Days/Week

**Effective Date** 10/29/2001

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**Section 2. Composition and Information on Ingredients**

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISOPROPYL ALCOHOL</td>
<td>67-63-0</td>
<td>100</td>
</tr>
</tbody>
</table>

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**Section 3. Hazards Identification**

**Physical State and Appearance**  
Liquid. (Colorless.)

**Emergency Overview**  
WARNING!  
FLAMMABLE LIQUID AND VAPOR.  
VAPOR MAY CAUSE FLASH FIRE.  
HARMFUL IF INHALED OR SWALLOWED.  
CAUSES SEVERE EYE IRRITATION.  
CAUSES DAMAGE TO THE FOLLOWING ORGANS: RESPIRATORY TRACT, SKIN, CENTRAL NERVOUS SYSTEM, EYE, LENS OR CORNEA.  
MAY CAUSE SKIN IRRITATION.

**Routes of Entry**  
Absorbed through skin. Eye contact. Inhalation. Ingestion.

**Potential Acute Health Effects**

**Eye**  
Extremely hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching.

**Skin**  
May be hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. Non-permeator by skin.

**Inhalation**  
Hazardous in case of inhalation.

**Ingestion**  
Hazardous in case of ingestion.

**Potential Chronic Health Effects**

**Carcinogenic**  
This material is not known to cause cancer in animals or humans.

**Medical Conditions Aggravated by Overexposure**  
Additional information See Toxicological Information (section 11)  
Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

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**Section 4. First Aid Measures**

**Eye Contact**  
Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Get medical attention immediately.
### Section 5. Fire Fighting Measures

<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flammability of the Product</strong></td>
<td>Product will burn.</td>
</tr>
<tr>
<td><strong>Auto-ignition Temperature</strong></td>
<td>399.05°C (750.3°F)</td>
</tr>
<tr>
<td><strong>Flash Points</strong></td>
<td>OPEN CUP: 11.9°C (53.4°F).</td>
</tr>
<tr>
<td><strong>Flammable Limits</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Products of Combustion</strong></td>
<td>These products are carbon oxides (CO, CO2).</td>
</tr>
</tbody>
</table>

#### Fire Hazards in Presence of Various Substances
- Highly flammable in presence of open flames, sparks and static discharge, of shocks, of heat, of oxidizing materials.

#### Explosion Hazards in Presence of Various Substances
- **Risks of explosion of the product in presence of static discharge:**
  - Highly flammable in presence of open flames, sparks and static discharge.
  - Highly explosive in presence of open flames, sparks and static discharge.

- **Risks of explosion of the product in presence of mechanical impact:**
  - Highly flammable in presence of shocks.
  - Highly explosive in presence of shocks.

#### Fire Fighting Media and Instructions
- **SMALL FIRE:** Use DRY chemical powder.
- **LARGE FIRE:** Use alcohol foam, water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.

#### Protective Clothing (Fire)
- Be sure to use an approved/certified respirator or equivalent.

#### Special Remarks on Fire Hazards
- Vapor may travel considerable distance to source of ignition and flash back.

#### Special Remarks on Explosion Hazards
- Not available.

### Section 6. Accidental Release Measures

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Small Spill and Leak</strong></td>
<td>Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.</td>
</tr>
<tr>
<td><strong>Large Spill and Leak</strong></td>
<td>Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.</td>
</tr>
</tbody>
</table>

#### Spill Kit Information
- The following EMD Chemicals Inc. SpillSolv (TM) absorbent is recommended for this product: SX1330 Solvent Treatment Kit

### Section 7. Handling and Storage

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Handling</strong></td>
<td>Keep away from heat, sparks and flame. Keep container closed. Do not get in eyes, on skin, or on clothing. Do not ingest. Do not breathe gas/fumes/vapor/spray.</td>
</tr>
</tbody>
</table>
Section 8. Exposure Controls/Personal Protection

Engineering Controls
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection

Eyes
Splash goggles.

Body
Lab coat.

Respiratory
Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.

Hands
Gloves.

Feet
Not applicable.

Personal Protection in Case of a Large Spill
Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Product Name Exposure Limits

ISOPROPYL ALCOHOL

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EH40-OES (United Kingdom (UK), 1997).</td>
<td>STEL: 1250 mg/m3</td>
</tr>
<tr>
<td></td>
<td>STEL: 500 ppm</td>
</tr>
<tr>
<td></td>
<td>MEL: 999 mg/m3</td>
</tr>
<tr>
<td></td>
<td>MEL: 400 ppm</td>
</tr>
<tr>
<td>ACGIH (United States, 1994).</td>
<td>STEL: 1230 mg/m3</td>
</tr>
<tr>
<td></td>
<td>STEL: 500 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA: 983 mg/m3</td>
</tr>
<tr>
<td></td>
<td>TWA: 400 ppm</td>
</tr>
<tr>
<td>NIOSH REL (United States, 1994).</td>
<td>STEL: 1225 mg/m3</td>
</tr>
<tr>
<td></td>
<td>STEL: 500 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA: 980 mg/m3 Period: 10 hour(s).</td>
</tr>
<tr>
<td></td>
<td>TWA: 400 ppm Period: 10 hour(s).</td>
</tr>
<tr>
<td>OSHA Final Rule (United States, 1989).</td>
<td>STEL: 1225 mg/m3</td>
</tr>
<tr>
<td></td>
<td>STEL: 500 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA: 980 mg/m3</td>
</tr>
<tr>
<td></td>
<td>TWA: 400 ppm</td>
</tr>
</tbody>
</table>

Section 9. Physical and Chemical Properties

Odor
Characteristic.

Color
Colorless.

Physical State and Appearance
Liquid. (Colorless.)

Molecular Weight
60.11 g/mole

Molecular Formula
C3-H8-O

pH
Not available.

Boiling/Condensation Point
82.55°C (180.6°F)

Melting/Freezing Point
-88.83°C (-127.9°F)

Specific Gravity
0.785 (Water = 1)

Vapor Pressure
Not available.

Vapor Density
2.07 (Air = 1)

Odor Threshold
Not available.

Evaporation Rate
1.7 compared to (n-BUTYL ACETATE=1)

LogKow
Not available.

Solubility
Soluble in water.
## Section 10. Stability and Reactivity

<table>
<thead>
<tr>
<th>Stability and Reactivity</th>
<th>The product is stable.</th>
</tr>
</thead>
</table>

### Conditions of Instability
- Not available.

### Incompatibility with Various Substances
- Highly reactive with oxidizing agents.

### Rem/Incompatibility
- Not available.

### Hazardous Decomposition Products
- Not available.

### Hazardous Polymerization
- Will not occur.

## Section 11. Toxicological Information

<table>
<thead>
<tr>
<th>iso-Propyl Alcohol</th>
<th>RTECS Number: NT8050000</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>RTECS Number:</strong></th>
<th>iso-Propyl Alcohol</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Toxicity</strong></th>
<th>Acute oral toxicity (LD50): 3600 mg/kg [Mouse].</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Acute dermal toxicity (LD50): 12800 mg/kg [Rabbit].</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Chronic Effects on Humans</strong></th>
<th>Not available.</th>
</tr>
</thead>
</table>

### Acute Effects on Humans
- Extremely hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching. May be hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. Non-permeator by skin. Hazardous in case of inhalation. Hazardous in case of ingestion. |

### Synergetic Products (Toxicologically)
- Not available.

### Irritancy
- Draize Test (Rabbit):
  - Eyes: 100 mg/24h. Reaction: Moderate. |

### Sensitization
- Not available.

### Carcinogenic Effects
- This material is not known to cause cancer in animals or humans.

### Toxicity to Reproductive System
- Tests on laboratory animals for reproductive effects are cited in Registry of Toxic Effects on Chemical Substances (RTECS).

<table>
<thead>
<tr>
<th>Teratogenic Effects</th>
<th>Not available.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Mutagenic Effects</th>
<th>Tests on laboratory animals for mutagenic effects are cited in Registry of Toxic Effects of Chemical Substances (RTECS).</th>
</tr>
</thead>
</table>

## Section 12. Ecological Information

### Ecotoxicity
- Not available.

### BOD5 and COD
- Not available.

### Toxicity of the Products of Biodegradation
- The products of degradation are less toxic than the product itself.

## Section 13. Disposal Considerations

<table>
<thead>
<tr>
<th><strong>EPA Waste Number</strong></th>
<th>D001</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Treatment</strong></th>
<th>Incineration, fuels blending or recycle. Contact your local permitted waste disposal site (TSD) for permissible treatment sites. Always contact a permitted waste disposal (TSD) to assure compliance with all current local, state, and Federal Regulations.</th>
</tr>
</thead>
</table>

## Section 14. Transport Information
Section 15. Regulatory Information

U.S. Federal Regulations
- TSCA 4(a) final test rules: ISOPROPYL ALCOHOL
- TSCA 8(b) inventory: ISOPROPYL ALCOHOL
- TSCA 8(d) H and S data reporting: ISOPROPYL ALCOHOL: 1986
- TSCA 12(b) one time export: ISOPROPYL ALCOHOL
- SARA 302/304/311/312 extremely hazardous substances: No products were found.
- SARA 302/304 emergency planning and notification: No products were found.
- SARA 302/304/311/312 hazardous chemicals: ISOPROPYL ALCOHOL
- SARA 311/312 MSDS distribution - chemical inventory - hazard identification: ISOPROPYL ALCOHOL: Fire Hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard
- SARA 313 toxic chemical notification and release reporting: ISOPROPYL ALCOHOL
- Clean Water Act (CWA) 307: No products were found.
- Clean Water Act (CWA) 311: No products were found.
- Clean air act (CAA) 112 accidental release prevention: No products were found.
- Clean air act (CAA) 112 regulated flammable substances: No products were found.
- Clean air act (CAA) 112 regulated toxic substances: No products were found.
- CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).
- Class D-2B: Material causing other toxic effects (TOXIC).
- CEPA DSL: ISOPROPYL ALCOHOL

WHMIS (Canada)
- CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).
- Class D-2B: Material causing other toxic effects (TOXIC).

International Regulations
- EINECS: ISOPROPYL ALCOHOL 200-661-7
- R36/37- Irritating to eyes and respiratory system.

International Lists
- Australia (NICNAS): ISOPROPYL ALCOHOL
- Japan (MITSU): ISOPROPYL ALCOHOL
- Japan (MOL): ISOPROPYL ALCOHOL
- Korea (TCCL): ISOPROPYL ALCOHOL
- Philippines (RA6969): ISOPROPYL ALCOHOL
- China: No products were found.

State Regulations
- Pennsylvania RTK: ISOPROPYL ALCOHOL: (environmental hazard, generic environmental hazard)
- Massachusetts RTK: ISOPROPYL ALCOHOL
- New Jersey: ISOPROPYL ALCOHOL
- California prop. 65: No products were found.

Section 16. Other Information

National Fire Protection Association (U.S.A.)

<table>
<thead>
<tr>
<th>Health</th>
<th>Fire Hazard</th>
<th>Reactivity</th>
<th>Specific Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Changed Since Last Revision
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