

MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

Manufactured by: Millenia Productions. P.O. Box 48025, Wichita, KS 67214

Trade Name: Isopropanol Alcohol

Information: (316) 425-2500

Date Prepared: 10/24/00

II. COMPOSTION/INFORMATION ON INGREDIENTS

Contains: 90-100% Isopropanol (67-63-0)[200-661-7]

III. HAZARDOUS INGREDIENTS:

RISK STATEMENTS: R11 Highly Flammable
R36/37/38 Irritating to eyes, respiratory system and skin.

SAFETY STATEMENTS: S7 Keep container tightly closed
S16 Keep away from sources of ignition. No smoking.

IV. FIRST AID MEASURES

EYE CONTACT:

For eyes, flush with plenty of water for 15 minutes & get medical attention.

SKIN CONTACT:

In case of contact with skin immediately remove contaminated clothing. Wash thoroughly with soap & water. Wash contaminated clothing before reuse.

INHALATION:

After high vapor exposure, remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped give artificial respiration.

SWALLOWING:

If swallowed, CALL A PHYSICIAN IMMEDIATELY! Induce vomiting promptly using physician's instructions or by having patient stick finger down throat. Never give anything by mouth to an unconscious person.

V. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:

NFPA Class B extinguishers (carbon Dioxide or foam) for Class I B liquid fires.

SPECIAL FIRE FIGHTING PROCEDURES:

Water spray may be ineffective on fire but can protect fire-fighters & cool closed containers. Use fog nozzles if water is used. Do not enter confined fire-space without full bunker gear. (Helmet with face shield, bunker coats, gloves, & rubber boots). Use NIOSH approved positive-pressure self-contained breathing apparatus.

UNUSUAL EXPLOSION AND FIRE PROCEDURES:

HIGHLY FLAMMABLE!! VAPORS CAN CAUSE FLASH FIRE

Keep container tightly closed.

Isolate from oxidizers, heat, sparks, electric equipment & open flame.

Closed containers may explode if exposed to extreme heat.

Applying to hot surfaces requires special precautions.

Empty container very hazardous! Continue all label precautions!

VI. ACCIDENTAL RELEASE MEASURES

CONTAINMENT TECHNIQUES:

Stop spill at source. Dike area & contain.

CLEAN-UP PROCEDURES:

Clean up remainder with absorbent materials. Mop up & dispose of. Persons without proper protection should be kept from area until cleaned up.

VII. HANDLING AND STORAGE

HANDLING:

Isolate from oxidizers, heat, sparks, electric equipment & open flame.

Use only with adequate ventilation. Avoid breathing of vapor or spray mist.

Avoid contact with skin & eyes.

Wear OSHA Standard goggles or face shield. Consult Safety Equipment Supplier.

Wear gloves, apron & footwear impervious to this material. Wash clothing before reuse.

Avoid free fall of liquid. Ground containers when transferring. Do not flame cut, saw, drill, braze, or weld. Empty container very hazardous! Continue all label precautions!

STORAGE:

Do not store above 49 C/120 F. Store large amounts in structures made for OSHA Class I B liquids.

Keep container tightly closed & upright when not in use to prevent leakage.

VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE CONTROLS:

Ventilate to keep vapors of this material below 100 ppm.

If over TLV, in accordance with 29 CFR 1910.134, use NIOSH approved positive-pressure self-contained breathing apparatus.

Consult Safety Equipment Supplier. Use explosion-proof equipment.

VENTILATION:

LOCAL EXHAUST: Necessary

MECHANICAL (GENERAL): Acceptable

SPECIAL: None

OTHER: None

PERSONAL PROTECTIONS:

Wear OSHA Standard goggles or face shield. Consult Safety Equipment Supplier.

Wear gloves, apron & footwear impervious to this material. Wash clothing before reuse.

WORK & HYGIENIC PRACTICES:

Provide readily accessible eye wash stations & safety showers.

Wash at end of each workshift & before eating, smoking, or using the toilet.

Promptly remove clothing that becomes contaminated. Destroy contaminated leather articles. Launder or discard contaminated clothing.

IX. PHYSICAL DATA

APPEARANCE:

Liquid, Water-White

ODOR:

Alcohol

BOILING RANGE:

80 81 83 C/ 177 179 182 F

AUTO IGNITION TEMPERATURE:

371 C/ 700 F (Lowest Component)

Isopropanol Alcohol

LOWER FLAMMABLE LIMIT IN AIR (% by vol):	2.0
FLASH POINT (TEST METHOD):	13 C/ 56 F (TCC)
FLAMMABILITY CLASSIFICATION:	Class I B
GRAVITY @ 60 F:	
API:	48.3
SPECIFIC GRAVITY (Water=1):	.787
POUNDS/GALLON:	6.556
VOC'S (>0.44 Lbs/Sq In):	100.1 Vol. %/ 787.9 g/L/ 6.563 Lbs/Gal
TOTAL VOC'S (TVOC):	100.0 Vol. %/ 787.0 g/L/ 6.555 Lbs/Gal
NONEXEMPT VOC'S (COVC):	100.0 Vol. %/ 787.0 g/L/ 6.555 Lbs/Gal
HAZARDOUS AIR POLLUTANTS (HAPS):	0.0 Wt. %/ 0.0 g/L/ 0.000 Lbs/Gal
VAPOR PRESSURE (mm of Hg) @ 20 C:	33.0
NONEXEMPT VOC PARTIAL PRESSURE (mm of Hg @ 20 C):	33.0
VAPOR DENSITY (air=1):	2.1
WATER ABSORPTION:	Complete
REFRACTIVE INDEX:	1.378

X. STABILITY & REACTIVITY

STABILITY:

Stable

CONDITIONS TO AVOID:

Isolate from oxidizers, heat, sparks, electric equipment & open flame.

MATERIALS TO AVOID:

Isolate from strong oxidizers such as permanganates, chromates & peroxides.

HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon Monoxide, Carbon Dioxide from burning.

HAZARDOUS POLYMERIZATION:

Will not occur

XI. TOXICOLOGICAL INFORMATION

MATERIAL	CAS#	TWA (OSHA)	TLV (ACGIH)	HAP
Isopropanol	67-63-0	400 ppm	200 ppm A4	No

This product contains no EPA Hazardous Air Pollutants (HAP) in amounts > 0.1%.

MATERIAL	CAS#	CEILING	STEL (OSHA/ACGIH)
Isopropanol	67-63-0	None Known	400 ppm

ACUTE HAZARDS:

EYE & SKIN CONTACT:

Primary irritation to skin, defattig, dermatitis.

Primary irritation to eyes, redness, tearing, blurred vision.

Liquid can cause eye irritation. Wash thoroughly after handling.

INHALATION:

Anesthetic. Irritates respiratory tract. Acute overexposure can cause serious nervous system depression.

Vapor harmful. Breathing vapor can cause irritation.

SWALLOWING:

Swallowing can cause abdominal irritation, nausea, vomiting & diarrhea.

SUBCHRONIC HAZARDS/CONDITIONS AGGREVATED
CONDITIONS AGGREVATED:

Chronic overexposure can cause damage to kidneys, blood, nerves, liver & lungs.
Persons with severe skin, liver or kidney problems should avoid use.

CHRONIC HAZARDS
CANCER, REPRODUCTIVE & OTHER CHRONIC HAZARDS

This product has no carcinogens listed by IARC, NTP, NIOSH, OSHA or ACGIH, as of this date, greater or equal to 0.1%.

XII. ECOLOGICAL INFORMATION

MAMMALIAN INFORMATION:

MATERIAL	CAS# LOWEST KNOWN LETHAL DOSE DATA
	LOWEST KNOWN LD50 (ORAL)
Isopropanol	67-63-0 5840.0 mg/kg (Rats)
	LOWEST KNOWN LC50 (VAPORS)
Isopropanol	67-63-0 16000 ppm (Rats)
	LOWEST KNOWN LD50 (SKIN)
Isopropanol	67-60-0 16400.0 mg/kg (Rabbits)

AQUATIC ANIMAL INFORMATION:

The most sensitive known marine group to any component of this product is:
Chub 1000 ppm or mg/L (24 hour exposure).
Keep out of sewers and natural water supplies.

MOBILITY:

This material is a mobile liquid

DEGRADABILITY:

This product is completely biodegradable

ACCUMULATION:

This product does not accumulate or biomagnify in the environment.

XIII. DISPOSAL CONSIDERATIONS

Recycle/ dispose of observing national, regional, state, provinial and local health, safety & pollution laws.
If questions exist, contact the appropriate agencies.

XIV. TRANSPORT INFORMATION

DOT SHIPPING NAME:	Isopropanol, 3, UN1219, PG-II
DRUM LABEL:	(FLAMMABLE LIQUID)
IATA/ICAO:	Isopropanol, 3, UN1219, PG-II
IMO/IMDG:	Isopropanol, 3, UN1219, PG-II

EMERGENCY RESPONSE GUIDEBOOK NUMBER: None

XV. REGULATORY INFORMATION

EPA REGULATIONS:

SARA SECTION 311/312 HAZARDS: Acute Health, Fire
All components of this product are on the TSCA list.

This material contains no known products restricted under SARA Title III, Section 313 in amounts greater or equal to 1%.

SARA TITLE III INGREDIENTS CAS# WT.% (REG SECTION) RQ (LBS)

INTERNATIONAL REGULATIONS

The components of this product are listed on the chemical inventories of the following countries:

Australia, Canada, Europe (EINECS), Japan, Korea, United Kingdom.

XVI. OTHER INFORMATION

HAZARD RATINGS:

HEALTH (NFPA): 1

HEALTH (HMIS): 2

FLAMMABILITY: 3

REACTIVITY: 0

This information is intended solely for the use of individuals trained in the NFPA & HMIS hazard rating systems.

EMPLOYEE TRAINING

Employees should be made aware of all hazards of this material (as stated in this MSDS) before handling it.

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