

MATERIAL SAFETY DATA SHEET

Product: **Isopropyl Alcohol**

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity

Product Name: Isopropyl Alcohol, Absolute
Product Code: CH-667630A
Chemical Formula: C₃H₈O
General or Generic ID: Isopropanol.

Company

ArtChemicals.com
2250 Davis Street
San Leandro, CA 94577-2204
510-639-4670

Emergency Telephone Number:

1-800-451-8346

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>CAS No.</u>	<u>Chemical Identity</u>	<u>Common Name</u>	<u>%</u>
67-63-0	Alcohol	Isopropyl alcohol	100

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye:

Hazardous in case of eye contact (irritant). Symptoms include stinging, tearing, redness and impairment of vision. The degree of injury will depend on the amount of material that gets into the eye and the speed and thoroughness of the first aid treatment.

Skin:

Slightly hazardous in case of skin contact (irritant/permeator). Symptoms may include redness, burning of skin, or, occasionally, blistering. The degree of injury will depend on the amount of material that gets on the skin and the speed and thoroughness of the first aid treatment.

Ingestion:

Hazardous in case of ingestion. Inhalation of dust will produce irritation to gastro-intestinal tract.

MATERIAL SAFETY DATA SHEET

Product: **Isopropyl Alcohol**

Inhalation:

Hazardous in case of inhalation. Breathing in any amounts may cause respiratory irritation, burning, sneezing and coughing.

Symptoms of Exposure:

Not available.

Development Information:

The substance is toxic to eyes.

The substance may be toxic to kidneys, liver, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage..

Cancer Information:

Not available.

Primary Route(s) of Entry:

Inhalation, skin absorption, skin contact, and eye contact.

4. FIRST AID MEASURES

Inhalation:

If affected, promptly remove individual to fresh air. If not breathing, give artificial respiration. Get medical attention.

Ingestion:

Do NOT induce vomiting, unless directed by medical personnel. Seek medical attention. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Do not leave individual unattended. Loosen tight clothing such as collar, tie, belt or waistband.

Eyes:

Remove contact lenses if worn. Spread eyelids with fingers and flush eye for minimum of 15 minutes with water; keep rotating the eyes to ensure complete flushing. Do not use an eye ointment. Seek medical attention.

Skin:

Immediately remove contaminated clothing and thoroughly flush skin with plenty of water (15 minutes). Wash thoroughly with soap and water. Seek medical attention immediately. Launder clothing before reuse.

MATERIAL SAFETY DATA SHEET

Product: **Isopropyl Alcohol**

Note to Physicians:

Not available.

5. FIRE FIGHTING MEASURES

Flash Point: Flammable. Closed Cup: 11.7°C (53.1°F).

Explosive Limit: Not available.

Auto-ignition Temperature: 399°C (750.2°F)

Hazardous Products of Combustion: Carbon oxides (CO,CO₂).

Extinguishing Media: Flammable liquid, soluble or dispersed in water.

SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use alcohol foam, water spray or fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Vapor may travel considerable distance to source of ignition and flash back. CAUTION: MAY BURN WITH NEAR INVISIBLE FLAME. Hydrogen peroxide sharply reduces the autoignition temperature of Isopropyl alcohol. After a delay, Isopropyl alcohol ignites on contact with dioxgenyl tetrafluorborate, chromium trioxide, and potassium tert-butoxide. When heated to decomposition it emits acrid smoke and fumes.

NFPA CODES: Health = 2 Flammability = 3 Reactivity = 0

6. PRECAUTIONS FOR SAFE HANDLING AND USE

Steps To Be Taken In Case Material Is Released Or Spilled:

Small Spill:

Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

Large Spill:

Flammable liquid.

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. Prevent entry into sewers, basements or confined areas; dike if needed.

MATERIAL SAFETY DATA SHEET

Product: **Isopropyl Alcohol**

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.

7. PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame). Keep locked up.. Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, acids, alkalis, moisture.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory Protection:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Be sure to use an approved/certified respirator or equivalent.

Skin Protection:

Wear resistant gloves. To prevent repeated or prolonged skin contact, wear impervious clothing and boots or lab coat.

Eye Protection:

Chemical splash goggles in compliance with OSHA regulations are advised. Face shield. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Other Protective Clothing or Equipment:

Provide sufficient mechanical ventilation to maintain exposure below level of overexposure. Boots. Full suit. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling product.

Exposure Limits:

TWA: 983 STEL: 1230 (mg/m³) [Australia]

TWA: 200 STEL: 400 (ppm) from ACGIH (TLV) [United States] [1999]

TWA: 980 STEL: 1225 (mg/m³) from NIOSH

MATERIAL SAFETY DATA SHEET

Product: **Isopropyl Alcohol**

TWA: 400 STEL: 500 (ppm) from NIOSH
TWA: 400 STEL: 500 (ppm) [United Kingdom (UK)]
TWA: 999 STEL: 1259 (mg/m³) [United Kingdom (UK)]
TWA: 400 STEL: 500 (ppm) from OSHA (PEL) [United States]
TWA: 980 STEL: 1225 (mg/m³) from OSHA (PEL) [United States]

Consult local authorities for acceptable exposure limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Clear/Colorless viscous liquid. (Alcohol odor).

Molecular Weight: 60.1 g/mole

pH: Not available.

Boiling Point: 82.5 °C (180.5 °F)

Melting Point: -88.5 °C (-127.3 °F)

Specific Gravity: 0.78505 (Water=1)

Vapor Pressure: 4.4 kPa (@20 °C).

Evaporation Rate: Not available.

Solubility in Water: Easily soluble in hot water, cold water.

10. STABILITY AND REACTIVITY

Incompatibility: Reactive with oxidizing agents, reducing agents, acids, alkalis.

Stability: Stable.

Hazardous Decomposition: N/A

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF 4-HOUR EXPOSURE.

Acute oral toxicity (LD50): 3600 mg/kg [Mouse.].

Acute dermal toxicity (LD50): 12800 mg/kg [Rabbit.].

Acute toxicity of the vapor (LC50): 16000 4 hours [Rat].

MATERIAL SAFETY DATA SHEET

Product: **Isopropyl Alcohol**

Acute Potential Health Effects:

Skin: May cause mild skin irritation, and sensitization.

Eyes: Can cause eye irritation.

Inhalation: Breathing in small amounts of this material during normal handling is not likely to cause harmful effects. However, breathing large amounts may be harmful and may affect the respiratory system and mucous membranes (irritation), behavior and brain (Central nervous system depression - headache, dizziness, drowsiness, stupor, in coordination, unconsciousness, coma and possible death), peripheral nerve and sensation, blood, urinary system, and liver.

Ingestion: Swallowing small amounts during normal handling is not likely to cause harmful effects. Swallowing large amounts may cause adverse reproductive/teratogenic effects (fertility, fetotoxicity, developmental abnormalities(developmental toxin)) based on animal studies. Detected in maternal milk in human. amounts may be harmful. Swallowing large amounts may cause gastrointestinal tract irritation with nausea, vomiting and diarrhea, abdominal pain. It also may affect the urinary system, cardiovascular system, sense organs, behavior or central nervous system (somnolence, generally depressed activity, irritability, headache, dizziness, and drowsiness), liver, and respiratory system (breathing difficulty).

Chronic Potential Health Effects:

Not available.

12. ECOLOGICAL INFORMATION

Not available.

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise. The product itself and its products of degradation are less toxic.

13. DISPOSAL CONSIDERATION

Waste Disposal Method:

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

MATERIAL SAFETY DATA SHEET

Product: **Isopropyl Alcohol**

14. DOT SHIPPING NAME & IDENTIFICATION:

Isopropyl Alcohol. Class 3. Flammable liquid. UNNA:1219 PG:II

15. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be, whether originating with the company or not. Recipients are advised to confirm in advance of need that information is current, applicable, and suitable to their circumstances.