

# SAFETY DATA SHEET

## Randolph Isopropyl Alcohol

### 1 – IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY UNDERTAKING

PRODUCT NAME: **Randolph Isopropyl Alcohol**  
PRODUCT NUMBER: **25-IPA**  
RECOMMENDED USE: Aircraft Coatings and thinners  
RESTRICTIONS ON USE: Not applicable  
SUPPLIER: Consolidated Aircraft Coatings  
P.O. Box 3129, Riverside, CA 92519, USA  
4343 Fort Drive, Riverside, CA 92509, USA  
(951) 684-4280  
(951) 809-7144  
(760) 782-1947  
EMERGENCY TELEPHONE: (800) 424-9300 (Chemtrec- US)  
(703) 527-3887 (International – Call Collect)

### 2 - HAZARDS IDENTIFICATION

#### GHS Hazard Category

Flammable liquid- Category 2  
Eye Irritation - Category 2A  
Skin Irritation- Category 2  
Respiratory Irritation- Category 3  
Specific target organ toxicity (single exposure) – Category 3, Central Nervous System H336

#### Label Elements

##### Pictograms



##### Signal Word

**DANGER**

##### Hazard Statements

Highly flammable. Irritating to eyes and skin  
May cause drowsiness or dizziness  
Harmful: danger of serious damage to health by prolonged exposure through inhalation  
Possible risk of harm to the unborn child  
Harmful: may cause lung damage if swallowed

##### Precautionary Statements

##### Prevention

Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Store in a well-ventilated place. Keep container tightly closed. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe mist/vapors/spray. Use only outdoors or in a well-ventilated area.  
Vapors may cause drowsiness and dizziness.

## Response

### INHALATION:

Move the victim to a fresh air place immediately. Get medical attention if discomforts persist.

### INGESTION:

Rinse mouth with clean water immediately. DO NOT induce vomiting. Get medical attention immediately. If vomiting occurs, keep the victim's head low so that vomits from the stomach will not enter the lungs.

### SKIN CONTACT:

Remove contaminated clothing and flush the affected skin areas with clean water for at least 15 minutes. Get medical attention if discomforts persist.

### EYES CONTACT:

Make sure all contact lenses are removed before flushing the eyes with eye lids open with clean water for at least 15 minutes. Get medical attention promptly if symptoms occur after washing.

## Storage

Store in a well-ventilated Place. Keep container tightly closed. Keep cool. Store in a locked cabinet, cage or room.

## Disposal

Dispose of contents and container in accordance with all local, regional, national and international regulations.

This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Highly flammable. Irritating to eyes and skin. Harmful: danger of serious damage to health by prolonged exposure through inhalation. Possible risk of harm to the unborn child. Harmful: may cause lung damage if swallowed. Vapors may cause drowsiness and dizziness.

CLASSIFICATION (1999/45) Xi, F, R11, R36, R67

### 3 – COMPOSITION /INFORMATION ON INGREDIENTS

Name	EC No.	CAS No.	Content %	Classification (67/548/EEC)
Isopropyl Alcohol	200-661-7	67-63-0	95-100%	XI, F, R11, R36, R67, S16, S24/25, S26, S7

The Full Text for all R-Phrases and S-Phrases is displayed in Section 15

### COMPOSITION COMMENTS

The data shown are in accordance with the latest EC Directives.

### 4- FIRST AID MEASURES

#### NOTICE:

Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

#### INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE:

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. 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.

#### SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE:

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

#### INGESTION HEALTH RISK AND SYMPTOMS OF EXPOSURE:

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.

**HEALTH HAZARDS (ACUTE AND CHRONIC):**

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. 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. 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.

CARCINOGENICITY: NTP CARCINOGEN: N/A IARC MONOGRAPHS: N/A OSHA REGULATED: N/A

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE TO THIS PRODUCT:**

Preexisting eye, skin, heart, central nervous system and respiratory disorders may be aggravated by exposure to this product.

**EMERGENCY AND FIRST AID PROCEDURES:****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 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 (i.e., 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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**5- FIRE FIGHTING PROCEDURES****EXTINGUISHING MEDIA:**

Alcohol foam, carbon dioxide, dry chemical.

**SPECIAL FIREFIGHTING PROCEDURES:**

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 coverage face piece operated in the positive-pressure demand mode with appropriate turnout gear and chemical resistant personal protective equipment.

**UNUSUAL 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. Flammable material

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**6-ACCIDENTAL RELEASE MEASURES****PERSONAL PRECAUTIONS:**

Wear protective clothing as described in Section 8.

**ENVIRONMENTAL PRECAUTIONS:**

Spillages or uncontrolled discharges into watercourses must immediately be alerted to Environmental Agency or other appropriate regulatory authority.

**SPILL CLEANUP METHODS:**

Keep combustibles away from spilled material. Extinguish all ignition sources. Avoid sparks, open flames, and smoking. Ventilate. Absorb in vermiculite, dry sand, or earth and place into containers for disposal.

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**7-HANDLING AND STORAGE****USAGE PRECAUTIONS:**

Keep away from heat, sparks and open flames. Avoid spilling, skin and eyes contact. Use with adequate ventilation and avoid excessive exposure to solvent vapors. Use approved respirator if air contamination exceeds the accepted level.

**STORAGE PRECAUTIONS:**

FLAMMABLE/Combustible. Keep away from oxidizers, open flames and other ignition sources. Keep unused contents in original container and tightly closed lids. Store in a cool, dry and well-ventilated place and at an ambient Temperature not to exceeding above 120° F.

STORAGE CLASS:

FLAMMABLE liquid storage.

## 8-EXPOSURE CONTROL/PERSONAL PROTECTION

Name	Workplace Exposure Limits	Remarks
Isopropyl Alcohol	ACGIH: 200 ppm TWA; 400 ppm STEL NIOSH: 400 ppm TWA; 980 mg/m <sup>3</sup> TWA 2000 ppm IDLH (10% LEL) ;OSHA-Final PELs: 400 ppm TWA; 980 mg/m <sup>3</sup> TWA	Consult local authorities for acceptable exposure limits



PROTECTIVE EQUIPMENTS:

PROCESS CONDITIONS:

ENGINEERING MEASURES:

RESPIRATORY EQUIPMENT:

HANDPROTECTION:

EYE PROTECTION:

OTHER PROTECTION:

HYGIENE MEASURES:

Provide eyewash station.

Provide adequate ventilation. Fully equipped spray booth is recommended to ensure the workers legal exposure limits are not exceeded.

Wear respirator with appropriate cartridge for organic solvents and chemicals.

Wear approved gloves such as Neoprene, Nitrile or Rubber types.

Wear splash-proof goggles.

Wear appropriate clothing to prevent any possible skin contact.

DO NOT SMOKE IN THE WORK AREA. Wash at the end of each work shift and before eating, drinking or smoking. Promptly remove contaminated clothing.

## 9- PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Liquid
COLOR:	colorless
ODOR:	Slight Ethanol/Acetone-like
BOILING POINT:	180 ° F
RELATIVE DENSITY:	0.789 g/mL
VAPOR DENSITY:	Heavier than air
FLASH POINT:	53 °F (11° C) (Closed Cup)
FLAMMABILITY LIMITS:	LOWER: 2%    UPPER: 12%
SOLUBILITY VALUE (g/100g H <sub>2</sub> O @ 20°C):	complete
VOLATILE ORGANIC COMPOUND (VOC):	789 g/L

## 10- STABILITY AND REACTIVITY

STABILITY:

Stable

CONDITIONS TO AVOID:

Heat and fires. Ignition sources.

INCOMPATIBILITY (MATERIALS TO AVOID):

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° F.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS:

May form carbon dioxide and carbon monoxide.

HAZARDOUS POLYMERIZATION:

Will not undergo hazardous polymerization.

## 11-TOXICOLOGICAL INFORMATION

**Isopropyl Alcohol (CAS#67-63-0):** LD50/LC50: Draize test, rabbit, eye: 100 mg Severe; Draize test, rabbit, eye: 10 mg Moderate; Draize test, rabbit, eye: 100 mg/24H Moderate; Draize test, rabbit, skin: 500 mg Mild; Inhalation, mouse: LC50 = 53000 mg/m<sup>3</sup>; Inhalation, rat: LC50 = 16000 ppm/8H; Inhalation, rat: LC50 = 72600 mg/m<sup>3</sup>; Oral, mouse: LD50 = 3600 mg/kg; Oral, mouse: LD50 = 3600 mg/kg; Oral, rabbit: LD50 = 6410 mg/kg; Oral, rat: LD50 = 5045 mg/kg; Oral, rat: LD50 = 5000 mg/kg; Skin, rabbit: LD50 = 12800. Carcinogenicity: Not listed by ACGIH, IARC,

NTP, or CA Prop 65. Epidemiology: No information found. Teratogenicity: A rat & rabbit developmental toxicity study showed no teratogenic effects at doses that were clearly maternally toxic. In a separate rat study, no evidence of developmental neurotoxicity was associated with gestational exposures to IPA up to 1200 mg/kg/d. Reproductive Effects: See actual entry in RTECS for complete information. Mutagenicity: See actual entry in RTECS for complete information. Neurotoxicity: In rats exposed to isopropanol by inhalation, acute neurotoxicity was noted at 1 and 6 hours at 5000 ppm, but only minimal effects were seen at 1500 ppm and the animals recovered within 5 hours. No toxicity was noted at 500 ppm

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**12- ECOLOGICAL INFORMATION**

**Isopropanol (CAS#67-63-0):** Ecotoxicity: Fish: Fathead Minnow: >1000 ppm; 96h; LC50Daphnia: >1000 ppm; 96h; LC50Fish: Gold orfe: 8970-9280 ppm; 48h; LC50 IPA has a high biochemical oxygen demand and a potential to cause oxygen depletion in aqueous systems, a low potential to affect aquatic organisms, a low potential to affect secondary waste treatment microbial metabolism, a low potential to affect the germination of some plants, a high potential to biodegrade (low persistence) with unacclimated microorganisms from activated sludge. Environmental: No information available. Physical: THOD: 2.40 g oxygen/gCOD: 2.23 g oxygen/gBOD-5: 1.19-1.72 g oxygen/g Other: No information available.

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**13 – DISPOSAL CONSIDERATIONS**

Hazardous wastes should be sent to a RCRA approved incinerator or disposed of in a RCRA approved waste facility. Dispose of container and unused contents in accordance with federal, state and local requirements.

**I certify that all chemical substances in this shipment comply with all applicable rules or orders under TSCA and that I am not offering a chemical substance for entry in violation of TSCA or any applicable rule or order under TSCA.**

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**14 – TRANSPORT INFORMATION**

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**DOT / ADR / RID Classification:**

**DOT PROPER SHIPPING NAME: ISOPROPYL (Isopropyl Alcohol)**  
**PRIMARY HAZARD CLASS/DIVISION: 3**  
**UN/UA NUMBER: UN1219**  
**PACKING GROUP: II**

**IMDG and ADN Classification:**

**IMDG PROPER SHIPPING NAME: ISOPROPYL (Isopropyl Alcohol)**  
**IMDG UN CLASS: 3**  
**IMDG UN NUMBER: 1219**  
**IMDG PACKING GROUP: II**  
**IMDG LABEL: FLAMMABLE LIQUID**  
**IMDG VESSEL STOWAGE: B**

**Air shipping this product is not advised and if done must be handled by a certified carrier according to IATA rules.**



**GHS LABEL:**

**DANGER**

**HIGHLY FLAMMABLE LIQUID AND VAPOR. VAPOR HARMFUL. CAUSES SKIN IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. HARMFUL OR FATAL IF SWALLOWED AND ENTERS AIRWAYS.**

Refer to MSDS for additional information on safe handling / use. - Keep out of reach of children. For Industrial Use Only.

**Contains:** Isopropyl Alcohol. This product contains one or more chemicals known to the State of California to cause cancer, birth defects, and/or other reproductive harm.

**Hazards:** H225: Highly flammable liquid and vapor. H319: Causes serious eye irritation. H336: May cause drowsiness or dizziness.

**Precautionary Statement(s):** P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P403+P233: Store in a well-ventilated place. Keep container tightly closed. P280: Wear protective gloves/protective clothing/eye protection/face protection. P261: Avoid breathing dust/fume/gas/mist/vapors/spray. P271: Use only outdoors or in a well-ventilated area. P240: Ground/bond container and receiving equipment.

**First Aid: Inhalation** - Move person to fresh air. If symptoms occur obtain medical attention. **Skin Contact** - Wash affected skin with soap and water. If symptoms occur obtain medical attention. **Eye Contact** - If substance has got into the eyes, immediately wash out with plenty of water for at least 15 minutes. If symptoms occur obtain medical attention. **Ingestion** - Do not induce vomiting. Drink one glass of water. If symptoms occur obtain medical attention.

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#### 15 – REGULATORY INFORMATION

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**Hazards:** H225: Highly flammable liquid and vapor. H319: Causes serious eye irritation. H336: May cause drowsiness or dizziness.

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CODES:



XI



F

- XI=harmful
- F=highly flammable

R-Phrases:

R11: Highly flammable  
R36: Irritating to eyes  
R67: Vapors may cause drowsiness and dizziness

S-Phrases:

S7: Keep container tightly closed  
S16: Keep away from sources of ignition - No smoking  
S24/25: Avoid contact with skin and eyes  
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

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#### 16- DISCLAIMER

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Above information is based on data supplied to us and is believed to be correct. Since the information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar and since the data made available subsequent to the date hereof may suggest modifications of the information, we do not assume responsibility for the results of its use. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose. It is the user's obligation to determine the safe use of it.