



# MATERIAL SAFETY DATA SHEET

Prepared to U.S. OSHA, CMA, ANSI and Canadian WHMIS Standards

## **PART I** *What is the material and what do I need to know in an emergency?*

### 1. PRODUCT IDENTIFICATION

CHEMICAL NAME; CLASS: ISOPROPYL ALCOHOL; 3  
Document Number: 6763-0

PRODUCT USE: For general analytical/synthetic chemical uses.

SUPPLIER/MANUFACTURER'S NAME: MESA Specialty Gases & Equipment  
ADDRESS: 3619 Pendleton Avenue, Suite C  
Santa Ana, CA 92704

BUSINESS PHONE: 1-714-434-7102  
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### 2. COMPOSITION and INFORMATION ON INGREDIENTS

Substance Name	CAS #	SARA 313
ISOPROPANOL	67-63-0	Yes

Formula C<sub>3</sub>H<sub>8</sub>O

Synonyms Alcohol isopropilico (Italian), Alcohol isopropylique (French), Alcojel, Alcosolve, Avantin, Avantine, Combi-schutz, Dimethylcarbinol, Hartosol, 2-Hydroxypropane, Imsol A, Isohol, Isopropanol, Isopropyl alcohol (ACGIH:OSHA), Iso-propylalkohol (German), Lutosol, 1-Methylethanol, 1-Methylethyl alcohol, Petrohol, PRO, 2-Propanol, i-Propanol (German), n-Propan-2-ol, sec-Propyl alcohol, 2-Propyl alcohol, i-Propylalkohol (German), Spectrar, Sterisol hand disinfectant, Takineocol

### 3. HAZARD IDENTIFICATION

No Data given

## **PART II** *What should I do if a hazardous situation occurs?*

Emergency Overview  
Flammable (USA) Highly Flammable (EU). Irritant.  
Irritating to eyes, respiratory system, and skin. Risk of serious damage to eyes.  
Target organ(s): Nerves. Kidneys.

HMIS Rating  
Health: 2                      Flammability: 3                      Reactivity: 0

NFPA Ratings  
Health: 2                      Flammability: 3                      Reactivity: 0

For additional information on toxicity, please refer to Section 11.

## 4. FIRST-AID MEASURES

### Oral Exposure

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

### Inhalation Exposure

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

### Dermal Exposure

In case of contact, immediately wash skin with soap and copious amounts of water.

### Eye Exposure

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

## Section 5 - Fire Fighting Measures

### Explosion Hazards

Vapor may travel considerable distance to source of ignition and flash back.

Container explosion may occur under fire conditions.

Flash Point:	53.6 °F	12 ~C	
Explosion Limits:	Lower: 2.5%	Upper: 12%	
Autoignition Temp:	399 °C	Flammability:	N/A

### Extinguishing Media Suitable

Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

### Firefighting

#### Protective Equipment

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

#### Specific Hazard(s)

Flammable liquid. Emits toxic fumes under fire conditions.

#### Specific Method(s) of Fire Fighting

Use water spray to cool fire-exposed containers.

## Section 6- Accidental Release Measures

Procedure to be Followed in Case of Leak or Spill Evacuate area. Shut off all sources of ignition. Use nonsparking tools.

### Procedure(s) of Personal Precaution(s)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

### Methods for Cleaning Up

Cover with dry-lime, sand, or soda ash. Place in covered containers using non-sparking tools and transport outdoors. Ventilate area and wash spill site after material pickup is complete.

## Section 7- Handling and Storage

### Handling

#### User Exposure

Do not breathe vapor. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

### Storage

#### Suitable

Keep tightly closed. Keep away from heat, sparks, and open flame. Store in a cool dry place.

## Section 8- Exposure Controls / PPE

### Engineering Controls

Safety shower and eye bath. Use nonsparking tools. Mechanical exhaust required.

### Personal Protective Equipment

#### Respiratory

NIOSH/MSHA-approved respirator.

#### Hand

Compatible chemical-resistant gloves.

#### Eye

Chemical safety goggles.

### General Hygiene Measures

Remove and wash contaminated clothing promptly. Wash thoroughly after handling.

### Exposure Limits, RTECS

<u>Country</u>	<u>Source</u>	<u>Type</u>	<u>Value</u>	<u>Remarks</u>
USA	ACGIH	STEL	1230 MG/M3 (500 PPM)	
USA	ACGIH	TWA	983 MG/M3 (400 PPM)	
USA	MSHA Standard-air	TWA	400 PPM (980 MG/M3)	
USA	OSHA.	PEL	8H TWA 400 PPM (980 MG/M3)	
New Zealand	OEL			check ACGIH TLV
USA	NIOSH	TWA STEL	400 PPM 500 PPM	

## Section 9 - Physical/Chemical Properties

### Appearance

#### Physical State

Liquid

#### Color

Colorless

Molecular Weight: 60.1 AMU

<u>Property</u>	<u>Value</u>	<u>At Temperature or Pressure</u>
pH	N/A	
BPIBP Range	81 - 83 °C	
MPIMP Range	-89.5 °C	
Freezing Point	N/A	
Vapor Pressure	33 mmHg	20 °C
Vapor Density	2.1 g/l	
Saturated Vapor conc.	N/A	
SG/Density	0.785 g/cm3	
Bulk Density	N/A	
Odor Threshold	N/A	
Volatile%	N/A	
VOC content	N/A	
Water Content	<0.05 %	
Solvent Content	N/A	
Evaporation Rate	N/A	
Viscosity	N/A	
Partition Coefficient	N/A	
Decomposition Temp.	N/A	
Flash Point ~F	53.6 ~F	
Flash Point ~C	12 °C	
Explosion Limits	Lower: 2.5 % Upper: 12%	
Autoignition Temp	399 °C	
Refractive Index	1.378	
Solubility	N/A	

## Section 10 - Stability and Reactivity

### Stability

Stable

Stable.

Materials to Avoid

Oxidizing agents, Acids, Acid anhydrides, Halogens, Aluminum.

Hazardous Decomposition Products Hazardous Decomposition Products Carbon monoxide, Carbon dioxide.

### Hazardous Polymerization

Hazardous Polymerization Will not occur.

## Section 11 - Toxicological Information

### Route of Exposure

Skin Contact

Causes skin irritation. Prolonged or repeated exposure to skin causes defatting and dermatitis.

Skin Absorption

May be harmful if absorbed through the skin.

Eye Contact

Causes severe eye irritation.

Inhalation

May be harmful if inhaled. Material is irritating to mucous membranes and upper respiratory tract.

Ingestion

May be harmful if swallowed.

### Target Organ(s) or System(s)

Nerves. Kidneys. Cardiovascular system. G.I. System.

### Signs and Symptoms of Exposure

Can cause CNS depression. Prolonged exposure can cause: Nausea, headache, and vomiting. Narcotic effect.

RTECS Number: NT8OS0000 Toxicity Data

Oral - Man: 5,272 mg/kg (LDLO)

Remarks: Behavioral:Coma.

Vascular:BP lowering not characterized in autonomic section.

Lungs, Thorax, or Respiration:Chronic pulmonary edema.

Oral - Human: 3,570 mg/kg (LDLO)

Remarks: Behavioral:Coma.

Lungs, Thorax, or Respiration:Respiratory depression.

Gastrointestinal:Nausea or vomiting.

Oral - Rat: 5,045 mg/kg (LD50)

Remarks: Behavioral:Altered sleep time (including change in righting reflex). Behavioral:Somnolence (general depressed activity).

Inhalation - Rat: 16,000 ppm (LC50)

Intraperitoneal - Rat: 2735 MG/KG (LD50)

Intravenous - Rat: 1088 MG/KG (LD50)

Oral - Mouse: 3,600 mg/kg (LD50)

Remarks: Behavioral:Altered sleep time (including change in righting reflex). Behavioral:Somnolence (general depressed activity).

Intraperitoneal - Mouse: 4477 MG/KG (LD50)

Intravenous - Mouse: 1509 MG/KG (LD50)

## Section 11 - Toxicological Information

Oral - Rabbit: 6,410 mg/kg (LDSO)  
 Skin - Rabbit: 12,800 mg/kg (LD50)  
 Intraperitoneal - Rabbit: 667 MG/KG (LDSO)  
 Intravenous - Rabbit: 1184 MG/KG (LD50)  
 Intraperitoneal - Guinea pig: 2560 MG/KG (LD50)  
 Intraperitoneal - Hamster: 3444 MG/KG (LDSO)

### Irritation Data

Skin - Rabbit: 500 mg Remarks: Mild irritation effect  
 Eyes - Rabbit: 100 mg  
     Remarks: Severe irritation effect  
 Eyes - Rabbit: 10 mg  
     Remarks: Moderate irritation effect  
 Eyes - Rabbit: 100 mg 24H Remarks: Moderate irritation effect

### IARC Carcinogen List

Rating  
 Group 3

### Chronic Exposure - Teratogen

<u>Species</u>	<u>Dose</u>	<u>Route of Application</u>	<u>Exposure Time</u>
Rat	8 GM/KG	Oral	(6-1 SD PREG)
	Result: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).		
Rat	32400 UG/KG	Oral	(26W PRE)
	Result: Effects on Embryo or Fetus: Fetal death.		
Rat	3500 PPM/7H	Inhalation	(1-19D PREG)
	Result: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).		
Rat	7000 PPM/7H	Inhalation	(1-19D PREG)
	Result: Specific Developmental Abnormalities: Musculoskeletal system.		

Chronic Exposure - Mutagen 1030 UG/M3/1 6W-I

<u>Species</u>	<u>Dose</u>	<u>Route</u>	<u>Mutation test</u>
Rat		Inhalation	Cytogenetic analysis

### Chronic Exposure - Reproductive Hazard

<u>Species</u>	<u>Dose</u>	<u>Route of Application</u>	<u>Exposure Time</u>
Rat	11340 MG/KG	Oral	
	Result: Maternal Effects: Menstrual cycle changes or disorders.		
Rat	5040 MG/KG	Oral	(1-20D PREG)
	Result: Effects on Fertility: Litter size (e.g., # fetuses per litter; measured before birth).		
Rat	3500 GM/KG	Oral	(MULTIGENERATION)
	Result: Effects on Fertility: Mating performance (e.g., # sperm positive females per # females mated; # copulations per # estrus cycles).		
			(45D PRE)
Rat	10000 PPM/7H	Inhalation	(1-19D PREG)
	Result: Effects on Fertility: Pre-implantation mortality (e.g., reduction in number of implants per female; total number of implants per corpora lutea). Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants). Effects on Embryo or Fetus: Fetal death.		
Rabbit	6240 MG/KG	Oral	(6-18D PREG)
	Result: Maternal Effects: Other effects.		

## Section 12 - Ecological Information

## Section 13 - Disposal Considerations

Appropriate Method of Disposal of Substance or Preparation

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable.

Observe all federal, state, and local environmental regulations.

## Section 14 - Transport Information

DOT

Proper Shipping Name: Isopropanol [or] Isopropyl alcohol

UN#: 1219

Class: 3

Packing Group: Packing Group II

PIH: Not PIH

IATA

Proper Shipping Name: Isopropanol

IATA Number: 1219

Hazard Class: 3

Packing Group: II

## Section 15 - Regulatory Information

EU Directives Classification

Symbol of Danger: F

Indication of Danger

Highly F-Flammable.

Risk Statements

R: 11

Highly flammable.

Safety Statements

5: 7 16

Keep container tightly closed. Keep away from sources of ignition - no smoking.

US Classification and Label Text

Indication of Danger

Flammable (USA) Highly Flammable (EU). Irritant.

Risk Statements

Irritating to eyes, respiratory system, and skin. Risk of serious damage to eyes.

Safety Statements

Keep away from sources of ignition - no smoking. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

US Statements

Target organ(s): Nerves. Kidneys.

United States Regulatory Information

SARA 313 Listed: Yes

Deminimis: 0.1 %

Notes: This product is subject to SARA section 313 reporting requirements.

TSCA Inventory Item: Yes

## Section 16 - Other Information

Warranty

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. MESA Specialty Gases & Equipment, shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. MESA Specialty Gases & Equipment License granted to make unlimited paper copies for internal use only.