

# SAFETY DATA SHEET

## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT

**Product Name:** Isopropyl alcohol  
**Product Description:** -  
**CAS No.** 67-63-0  
**EC No.** 200-661-7  
**Molecular Formula:** C<sub>3</sub>H<sub>8</sub>O  
**Recommended Use:** -

### COMPANY IDENTIFICATION

**Supplier:** UNION PETROCHEMICAL PUBLIC COMPANY LIMITED  
728 Union House Building, Baromratchonnani Rd.,  
Bangbumru, Bangplad, Bangkok 10700  
**Supplier General Contact:** +662 881 8288

This (M)SDS is a generic document with no country specific information included.

## SECTION 2 HAZARDS IDENTIFICATION

Hazard class and label elements of the product according to GHS (the seventh revised edition):

### GHS CLASSIFICATION:

Flammable liquid: Category 2.  
Eye Damage/Irritation: Category 2A.  
Specific Target Organ Toxicity (Single Exposure): Category 3.

### GHS LABEL ELEMENTS:

#### Pictogram:



**Signal Word:** Danger

### Hazard Statements:

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

### Precautionary Statements:

**Prevention:** P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233: Keep container tightly closed. P240: Ground and bond container and receiving equipment. P241: Use explosion-proof [electrical/ventilating/lighting] equipment. P242: Use non-sparking tools. P243: Take action to prevent static discharges. P261: Avoid breathing dust/fume/gas/mist/vapours/spray. P264: Wash thoroughly after handling. P272: Contaminated work clothing should not be allowed out of the workplace. P280: Wear protective gloves/protective clothing/eye protection/face protection.



**Response:** P312: Call a POISON CENTER/doctor, if you feel unwell. P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing. P337 + P313: If eye irritation persists: Get medical advice/attention. P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**Storage:** P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

**Disposal:** P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

### SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

This material is defined as a substance.

#### Hazardous Substance(s) or Complex Substance(s) required for disclosure

Name	CAS No.	Concentration*	EC No.
Isopropyl alcohol	67-63-0	99 Wt%	200-661-7

### SECTION 4 FIRST AID MEASURES

#### DESCRIPTION OF FIRST AID MEASURES

##### General Advice

Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.

##### Eye Contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.

##### Skin Contact

Take off contaminated clothing and shoes immediately. Wash off with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.

##### Ingestion

Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.

##### Inhalation

Move victim into fresh air. If breathing is difficult, give oxygen. Do not use mouth to mouth resuscitation if victim ingested or inhaled the substance. If not breathing, give artificial respiration and consult a physician immediately.

##### Protecting of First-aiders

Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

#### MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

- 1 Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

#### INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

- 1 Treat symptomatically.
- 2 Symptoms may be delayed.

## SECTION 5

## FIRE FIGHTING MEASURES

### EXTINGUISHING MEDIA

#### Suitable Extinguishing Media

Dry chemical, carbon dioxide or alcohol-resistant foam.

#### Unsuitable Extinguishing Media

Do not use a solid water stream as it may scatter or spread fire.

### SPECIFIC HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

- 1 Will form explosive mixtures with air.
- 2 Fire exposed containers may vent contents through pressure relief valves thereby increasing fire intensity and/ or vapour concentration.
- 3 Vapours may travel to source of ignition and flash back.
- 4 Liquid and vapour are flammable.
- 5 Containers may explode when heated.
- 6 Fire exposed containers may vent contents through pressure relief valves.
- 7 May expansion or decompose explosively when heated or involved in fire.

### ADVICE FOR FIREFIGHTERS

- 1 As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear.
- 2 Fight fire from a safe distance, with adequate cover.
- 3 Prevent fire extinguishing water from contaminating surface water or the ground water system.

## SECTION 6

## ACCIDENTAL RELEASE MEASURES

### PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

- 1 Avoid breathing vapors and contacting with skin and eye.
- 2 Beware of vapours accumulating to form explosive concentrations.
- 3 Vapours can accumulate in low areas.
- 4 Emergency personnel wear positive pressure self-contained breathing apparatus. Wear protective and anti-static clothing. Wear chemical impermeable gloves.
- 5 Ensure adequate ventilation. Remove all sources of ignition.
- 6 Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
- 7 Use personal protective equipment. Avoid breathing vapours, mist, gas or dust.

### ENVIRONMENTAL PRECAUTIONS

- 1 Prevent further leakage or spillage if safe to do so.
- 2 Discharge into the environment must be avoided.

### METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

- 1 Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding.
- 2 Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations
- 3 Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

## SECTION 7

## HANDLING AND STORAGE

### PRECAUTIONS FOR HANDLING

- 1 Avoid inhalation of vapors.
- 2 Use only non-sparking tools.
- 3 To prevent fire caused by electrostatic discharge steam, equipment on all metal parts should be grounded.
- 4 Use explosion proof equipment.
- 5 Handling is performed in a well ventilated place.

- 6 Wear suitable protective equipment.
- 7 Avoid contact with skin and eyes.
- 8 Keep away from heat/sparks/open flames/ hot surfaces.
- 9 Take precautionary measures against static discharges.

#### PRECAUTIONS FOR STORAGE

- 1 Keep containers tightly closed.
- 2 Keep containers in a dry, cool and well-ventilated place.
- 3 Keep away from heat/sparks/open flames/ hot surfaces.
- 4 Store away from incompatible materials and foodstuff containers.

### SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

#### CONTROL PARAMETERS

##### Occupational Exposure Limit Values

Substance Name	Country/Region	Limit Value – Eight Hours		Limit Value – Short Term	
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Isopropyl alcohol	USA - OSHA	400	980	-	-
	South Korea	200	480	400	980
	Ireland	200	-	400	-
	Germany (AGS)	200	500	400	1000
	Denmark	200	490	400	980
	Australia	400	983	500	1230

##### Biological limits

No information available

##### Monitoring Methods

- 1 EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.
- 2 GBZ/T 160.1-GBZ/T 160.81-2004 Determination of toxic substances in workplace air (Series standard).

#### ENGINEERING CONTROLS

- 1 Ensure adequate ventilation, especially in confined areas.
- 2 Ensure that eyewash stations and safety showers are close to the workstation location.
- 3 Use explosion-proof electrical/ventilating/lighting/equipment.
- 4 Set up emergency exit and necessary risk-elimination area.

#### PERSONAL PROTECTION EQUIPMENT

- Eye Protection** Tightly fitting safety goggles (approved by EN 166(EU) or NIOSH (US)).
- Hand Protection** Wear protective gloves (such as butyl rubber), passing the tests according to EN 374(EU), US F739 or AS/NZS 2161.1 standard.
- Respiratory protection** If exposure limits are exceeded or if irritation or other symptoms are experienced, use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges.
- Skin and Body Protection** Wear fire/flare resistant/retardant clothing and antistatic boots.

**SECTION 9****PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance:** Colorless transparent liquid  
**Odor Threshold:** No information available  
**Melting Point/Freezing Point (°C):** -90  
**Flash Point (°C) (Closed Cup):** 11.7  
**Flammability:** Not applicable

**Vapor Pressure (kPa):** 4.4  
**Relative Density (Water=1):** 0.78  
**n-Octanol/Water Partition Coefficient:** 0.05  
**Decomposition Temperature (°C):** No information  
**Particle characteristics:** Not applicable

**Odor:** No information available  
**pH:** No information available  
**Initial Boiling Point and Boiling Range (°C):** 83  
**Evaporation Rate:** No information available  
**Upper/lower explosive limits[%(v/v)]:**  
Upper limit : 12 ; Lower limit : 2  
**Relative Vapour Density (Air=1):** 2.1  
**Solubility:** Miscible with water  
**Auto-Ignition Temperature (°C):** 456  
**Kinematic Viscosity (mm<sup>2</sup>/s):** No information available

**SECTION 10****STABILITY AND REACTIVITY**

**Reactivity:** Contact with incompatible substances can cause decomposition or other chemical reactions.

**Chemical:** Stability Stable under proper operation and storage conditions.

**Possibility of Hazardous Reactions:** In contact with oxidants causes severe reactions, and may cause a fire or explosion.

**Conditions to Avoid:** Incompatible materials, heat, flame, and spark.

**Incompatible Materials:** Oxidants, alkali metals, alkaline earth metals and aluminum.

**Decomposition products:** Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**SECTION 11****TOXICOLOGICAL INFORMATION****ACUTE TOXICITY**

Component	CAS No.	LD <sub>50</sub> (Oral)	LD <sub>50</sub> (Dermal)	LC <sub>50</sub> (Inhalation, 4 h)
Isopropyl alcohol	67-63-0	5045 mg/kg (Rat)	12800 mg/kg (Rabbit)	No information available

**SKIN CORROSION/IRRITATION**

No information available

**SERIOUS EYE DAMAGE/IRRITATION**

Causes serious eye irritation (Category 2A) (Isopropyl alcohol)

**SKIN SENSITIZATION**

No information available

**RESPIRATORY SENSITIZATION**

No information available

**GERM CELL MUTAGENICITY**

No information available

**CARCINOGENICITY**

ID	CAS No.	Component	IARC	NTP
1	67-63-0	Isopropyl alcohol	Category 3	Not Listed

**REPRODUCTIVE TOXICITY**

No information available

## REPRODUCTIVE TOXICITY (Additional)

No information available

## STOT-SINGLE EXPOSURE

May cause drowsiness or dizziness (Category 3) (Isopropyl alcohol)

## STOT-REPEATED EXPOSURE

No information available

## ASPIRATION HAZARD

No information available

## SECTION 12

## ECOLOGICAL INFORMATION

### ACUTE AQUATIC TOXICITY

Component	CAS no.	Fish	Crustaceans	Algae
Isopropyl alcohol	67-63-0	LC <sub>50</sub> : 9640 mg/L (96 h) (Fish)	EC <sub>50</sub> : >10000 mg/L (48h)	ErC <sub>50</sub> : >10000 mg/L (72h)

### CHRONIC AQUATIC TOXICITY

Component	CAS no.	Fish	Crustaceans	Algae
Isopropyl alcohol	67-63-0	No information available	NOEC : >100 mg/L	NOEC : 1000 mg/L

## OTHERS

**Persistence and Degradability**

No information available

**Bioaccumulative Potential**

No information available

**Mobility in Soil**

No information available

**Results of PBT and vPvB Assessment**

Isopropyl alcohol does not meet the criteria for PBT and vPvB according to Regulation (EC) No 1907/2006, annex XIII.

## SECTION 13

## DISPOSAL CONSIDERATIONS

**Waste Chemicals**

Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal.

**Contaminated Packaging**

Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible.

**Disposal Recommendations**

Refer to section 13.1 and 13.2.

## SECTION 14

## TRANSPORT INFORMATION

**Transporting Label**



**Marine pollutant**

None

**UN Number**

1219

**UN Proper Shipping Name**

ISOPROPANOL (ISOPROPYL ALCOHOL)

**Transport Hazard Class**

3

**Transport Subsidiary Hazard Class**

None

**Packing Group**

II

<b>SECTION 15</b>	<b>REGULATORY INFORMATION</b>
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INTERNATIONAL CHEMICAL INVENTORY

Component	EINECS	TSCA	DSL	IECSC	NZIoC	PICCS	KECI	AICS	ENCS
Isopropyl alcohol	√	√	√	√	√	√	√	√	√

- [EINECS] European Inventory of Existing Commercial Chemical Substances.  
[TSCA] United States Toxic Substances Control Act Inventory.  
[DSL] Canadian Domestic Substances List.  
[IECSC] China Inventory of Existing Chemical Substances.  
[NZIoC] New Zealand Inventory of Chemicals.  
[PICCS] Philippines Inventory of Chemicals and Chemical Substances.  
[KECI] Existing and Evaluated Chemical Substances.  
[AICS] Australia Inventory of Chemical Substances.  
[ENCS] Existing And New Chemical Substances.

Note

“√” Indicates that the substance included in the regulations

“x” That no data or included in the regulations

<b>SECTION 16</b>	<b>OTHER INFORMATION</b>
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