

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended 2015/830.

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

**Product name:** 2-Propanol

**Product No.** 9088, 5892, 9095, 9084, 9083, 9082, 9079, 9078, 9059, 9055, 9045, 5986, 5978, 5977, 5967, 5873, 5863, 9827, 5373, 9334, 8235, 8119, 8067, 3412

### Additional identification

**Chemical name:** Isopropyl alcohol  
**Chemical formula:** C<sub>3</sub>H<sub>8</sub>O  
**INDEX No.** 603-117-00-0  
**CAS-No.** 67-63-0  
**EC No.** 200-661-7  
**REACH Registration No.** 01-2119457558-25-XXXX

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

**Identified uses:** For Laboratory, Research or Manufacturing Use.  
**Uses advised against:** Not determined.

### 1.3 Details of the supplier of the safety data sheet

Avantor Performance Materials Poland S.A.  
Sowinskiego 11str., 44-101 Gliwice,  
Poland

**Telephone:** 48 32 239-20-00  
**Fax:** 48 32 239-23-70

**Contact person:** Environmental Health & Safety  
**E-mail:** export@avantormaterials.com

E-mail address of person responsible for this SDS: SDS@avantormaterials.com

### 1.4 Emergency telephone number: CHEMTREC: (44)-870-8200418

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

The product has been classified according to the legislation in force.

**Classification according to Regulation (EC) No 1272/2008 as amended.**

#### Physical Hazards

Flammable liquids Category 2 H225: Highly flammable liquid and vapour.

#### Health Hazards

Serious eye irritation Category 2 H319: Causes serious eye irritation.

Specific Target Organ Toxicity - Category 3 H336: May cause drowsiness or dizziness.  
Single Exposure

**2.2 Label Elements**

**Contains:** Isopropyl alcohol



**Signal Word:** Danger

**Hazard Statement(s):** H225: Highly flammable liquid and vapour.  
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.  
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.

**Response:** P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P312: Call a POISON CENTRE/doctor if you feel unwell.  
P337+P313: If eye irritation persists: Get medical advice/attention.

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

**2.3 Other hazards** No data available.

**SECTION 3: Composition/information on ingredients**

**3.1 Substances**

Chemical name	Concentration	CAS-No.	EC No.	REACH Registration No.	M-Factor:	Notes
Isopropyl alcohol	50 - <100%	67-63-0	200-661-7	01-2119457558-25-XXXX	No data available.	#

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

# This substance has workplace exposure limit(s).

**SECTION 4: First Aid Measures**

**General:** Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.

**4.1 Description of first aid measures**

<b>Inhalation:</b>	Move to fresh air. Get medical attention if symptoms persist.
<b>Skin Contact:</b>	Wash skin thoroughly with soap and water. Get medical attention if symptoms occur.
<b>Eye contact:</b>	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.
<b>Ingestion:</b>	Call a doctor or poison control centre immediately. Do NOT induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
<b>4.2 Most important symptoms and effects, both acute and delayed:</b>	Harmful if swallowed. Narcotic effect. Irritating to eyes, respiratory system and skin.

**4.3 Indication of any immediate medical attention and special treatment needed**

<b>Hazards:</b>	No data available.
<b>Treatment:</b>	Treat symptomatically. Symptoms may be delayed.

**SECTION 5: Firefighting Measures**

**General Fire Hazards:** Flammable liquid and vapour.

**5.1 Extinguishing media  
Suitable extinguishing media:**

Water spray, foam, dry powder or carbon dioxide.

**Unsuitable extinguishing media:**

Avoid water in straight hose stream; will scatter and spread fire.

**5.2 Special hazards arising from the substance or mixture:**

Vapours may cause a flash fire or ignite explosively. Vapours may travel considerable distance to a source of ignition and flash back. Prevent buildup of vapours or gases to explosive concentrations. Vapour from the solvent may accumulate in container headspace resulting in flammability hazard.

**5.3 Advice for firefighters  
Special fire fighting procedures:**

Highly flammable liquid and vapour.

**Special protective equipment for firefighters:**

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

**SECTION 6: Accidental Release Measures**

**6.1 Personal precautions, protective equipment and emergency procedures:**

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep unauthorised personnel away. Keep upwind. Use personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. See Section 8 of the SDS for Personal Protective Equipment.

**6.2 Environmental Precautions:**

Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

**6.3 Methods and material for containment and cleaning up:**

In case of leakage, eliminate all ignition sources. Take precautionary measures against static discharges. Stop leak if possible without any risk. Use non-sparking tools. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. Dyke far ahead of larger spill for later recovery and disposal.

**6.4 Reference to other sections:**

No data available.

**SECTION 7: Handling and Storage:**

**7.1 Precautions for safe handling:**

DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. Ground and bond container and receiving equipment. Use explosion-proof [electrical/ventilating/lighting] equipment. Use non-sparking tools. Wear protective gloves/protective clothing/eye protection/face protection. Avoid contact with eyes, skin, and clothing. Use only with adequate ventilation. Wash hands thoroughly after handling.

**7.2 Conditions for safe storage, including any incompatibilities:**

Keep away from food, drink and animal feeding stuffs. Keep container tightly closed in a cool, well-ventilated place. Ground container and transfer equipment to eliminate static electric sparks. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of flammable liquids.

**7.3 Specific end use(s):**

No data available.

**SECTION 8: Exposure Controls/Personal Protection**

**8.1 Control Parameters**

**Occupational Exposure Limits**

Chemical name	Type	Exposure Limit Values	Source
Isopropyl alcohol	TWA	400 ppm 999 mg/m3	UK. EH40 Workplace Exposure Limits (WELs) (2007)
	STEL	500 ppm 1.250 mg/m3	

**DNEL-Values**

Critical component	Type	Route of Exposure	Health Warnings	Remarks
Isopropyl alcohol	General population	Oral	Systemic, long-term; 500 mg/m3	Repeated dose toxicity

**PNEC-Values**

Critical component	Environmental compartment	PNEC-Values
Isopropyl alcohol	Sewage treatment plant	2251 mg/l
	Aquatic (freshwater)	140,9 mg/l
	Aquatic (marine water)	140,9 mg/l
	Sediment (marine water)	552 mg/kg
	Sediment (freshwater)	552 mg/kg
	Soil	28 mg/kg
	Aquatic (intermit. releases)	140,9 mg/l
	Predator	160 mg/kg

**8.2 Exposure controls**

**Appropriate Engineering Controls:** No special requirements under ordinary conditions of use and with adequate ventilation.

**Individual protection measures, such as personal protective equipment**

- General information:** Use explosion-proof ventilation equipment. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. If exposure limits have not been established, maintain airborne levels to an acceptable level.
- Eye/face protection:** Wear safety glasses with side shields (or goggles).
- Skin protection**
- Hand Protection:** Material: Chemical resistant gloves
- Other:** Wear suitable protective clothing.
- Respiratory Protection:** If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.
- Hygiene measures:** When using do not smoke. Observe good industrial hygiene practices. Do not eat, drink or smoke when using the product. Wash hands before breaks and immediately after handling the product.
- Environmental Controls:** No data available.

**SECTION 9: Physical And Chemical Properties**

**9.1 Information on basic physical and chemical properties**

**Appearance**

- Physical state:** Liquid
- Form:** Liquid
- Colour:** Colorless
- Odour:** Odor of rubbing alcohol
- Odour Threshold:** No data available.
- pH:** No data available.
- Freezing point:** -88,5 °C
- Boiling Point:** 82,5 °C (101,3 kPa)
- Flash Point:** 12 °C (Closed Cup)
- Evaporation Rate:** 21 ether=1 1,7 n-butyl acetate=1
- Flammability (solid, gas):** Class IB Flammable Liquid
- Flammability limit - upper (%):** 12 %(V)
- Flammability limit - lower (%):** 2,5 %(V)
- Vapour pressure:** 6,0 kPa (25 °C)  
44 hPa (20 °C)
- Vapour density (air=1):** 2,1 Air=1
- Density:** 0,79 g/ml (20 °C)
- Relative density:** 0,79 (20 °C)
- Solubility(ies)**

<b>Solubility in Water:</b>	Miscible with water.
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	0,05
<b>Autoignition Temperature:</b>	399 °C
<b>Decomposition Temperature:</b>	No data available.
<b>Viscosity:</b>	No data available.
<b>Explosive properties:</b>	No data available.
<b>Oxidising Properties:</b>	No data available.

## 9.2 Other information

<b>Molecular weight:</b>	60,1 g/mol (C <sub>3</sub> H <sub>8</sub> O)
<b>VOC content:</b>	EC Directive 2004/42: 790 g/l ~100 % (calculated)
<b>Minimum ignition energy:</b>	0,65 mJ

## SECTION 10: Stability and Reactivity

<b>10.1 Reactivity:</b>	No data available.
<b>10.2 Chemical Stability:</b>	Material is stable under normal conditions.
<b>10.3 Possibility of Hazardous Reactions:</b>	Hazardous polymerization does not occur.
<b>10.4 Conditions to Avoid:</b>	Heat, sparks, flames. Sunlight.
<b>10.5 Incompatible Materials:</b>	Strong oxidising agents. Acetylene. Acids. Chlorine. Hydrogen peroxide (H <sub>2</sub> O <sub>2</sub> ) Ethylene Oxide Sulfuric acid. Isocyanates Aluminium.
<b>10.6 Hazardous Decomposition Products:</b>	Thermal decomposition may release oxides of carbon.

## SECTION 11: Toxicological Information

### Information on likely routes of exposure

<b>Inhalation:</b>	None known or expected under normal use.
<b>Skin Contact:</b>	None known or expected under normal use.
<b>Eye contact:</b>	Causes serious eye irritation.
<b>Ingestion:</b>	No adverse effects due to ingestion are expected.

### 11.1 Information on toxicological effects

#### Acute toxicity

##### Oral

<b>Product:</b>	LD 50 (Rat): 4.700 - 5.840 mg/kg
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##### Dermal

<b>Product:</b>	LD 50 (Rabbit) 12.800 mg/kg
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##### Inhalation

<b>Product:</b>	LC 50 (Rat, 6 h): > 10000 ppm (, Yes) 1 = reliable without restrictions Vapour, Experimental result, Key study LOAEL (Rat, 6 h): 5000 ppm (, Yes) 1 = reliable without restrictions
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Vapour, Experimental result, Key study

**Repeated dose toxicity**

**Product:** None known.

**Skin Corrosion/Irritation:**

**Product:** Not known.

**Serious Eye Damage/Eye Irritation:**

**Product:** Causes serious eye irritation.

**Respiratory or Skin Sensitisation:**

**Product:** Not a skin nor a respiratory sensitizer.

**Germ Cell Mutagenicity**

**In vitro**

**Product:** No mutagenic components identified

**In vivo**

**Product:** No mutagenic components identified

**Carcinogenicity**

**Product:** This substance has no evidence of carcinogenic properties.

**Reproductive toxicity**

**Product:** No components toxic to reproduction

**Specific Target Organ Toxicity - Single Exposure**

**Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** None known.

**Aspiration Hazard**

**Product:** Not classified

**Other Adverse Effects:**

None known.

**SECTION 12: Ecological Information**

**12.1 Toxicity**

**Acute toxicity**

**Fish**

**Product:** LC 50 (Western mosquitofish (*Gambusia affinis*), 96 h): > 1.400 mg/l

**Specified substance(s)**

Isopropyl alcohol

LC 50 (Fathead minnow (*Pimephales promelas*), 96 h): 5.770 - 11.130 mg/l (Flow through) Mortality  
 LC 50 (Harlequinfish, red rasbora (*Rasbora heteromorpha*), 96 h): 4.200 mg/l (Flow through) Mortality  
 LC 50 (Bluegill (*Lepomis macrochirus*), 96 h): > 1.400 mg/l (Static) Mortality  
 LC 50 (Western mosquitofish (*Gambusia affinis*), 96 h): > 1.400 mg/l (Static) Mortality

LC 50 (Pimephales promelas, 96 h): 8.680 - 10.000 mg/l (Acute toxicity)

**Aquatic Invertebrates**

**Product:** LC 50 (Water flea (Daphnia magna), 24 h): 10.000 mg/l

**Specified substance(s)**

Isopropyl alcohol  
 LC 50 (Common shrimp, sand shrimp (Crangon crangon), 96 h): 750 - 1.650 mg/l (Renewal) Mortality  
 LC 50 (Common shrimp, sand shrimp (Crangon crangon), 48 h): 900 - 1.950 mg/l (Renewal) Mortality  
 LC 50 (Water flea (Daphnia magna), 24 h): > 10.000 mg/l (Static) Mortality  
 LC 50 (Brine shrimp (Artemia salina), 24 h): > 10.000 mg/l (Static) Mortality  
 EC 50 (Daphnia magna, 24 h): 9.714 mg/l (Static) Experimental result, Supporting study

**Chronic toxicity**

**Fish**

**Product:** No data available.

**Specified substance(s)**

Isopropyl alcohol No data available.

**Aquatic Invertebrates**

**Product:** No data available.

**Specified substance(s)**

Isopropyl alcohol No data available.

**Toxicity to aquatic plants**

**Product:** No data available.

**Specified substance(s)**

Isopropyl alcohol No data available.

**12.2 Persistence and Degradability**

**Biodegradation**

**Product:** Expected to be readily biodegradable.

**Specified substance(s)**

Isopropyl alcohol No data available.

**BOD/COD Ratio**

**Product** No data available.

**Specified substance(s)**

Isopropyl alcohol No data available.

**12.3 Bioaccumulative Potential**

**Product:** No data available on bioaccumulation.

**Specified substance(s)**

Isopropyl alcohol No data available.

**12.4 Mobility in Soil:**

The product is partly soluble in water. May spread in the aquatic environment.

**Known or predicted distribution to environmental compartments**

Isopropyl alcohol No data available.

**12.5 Results of PBT and vPvB assessment:** Not available.

Isopropyl alcohol No data available.

**12.6 Other Adverse Effects:** The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

**12.7 Additional Information:** No data available.

## SECTION 13: Disposal Considerations

### 13.1 Waste treatment methods

**General information:** No data available.

**Disposal methods:** Discharge, treatment, or disposal may be subject to national, state, or local laws.

## SECTION 14: Transport Information

### ADR

14.1 UN Number: UN 1219  
 14.2 UN Proper Shipping Name: ISOPROPANOL  
 14.3 Transport Hazard Class(es)  
     Class: 3  
     Label(s): 3  
     Hazard No. (ADR): 33  
     Tunnel restriction code: (D/E)  
 14.4 Packing Group: II  
 14.5 Environmental Hazards: No  
 14.6 Special precautions for user: Not determined.

### RID

14.1 UN Number: UN 1219  
 14.2 UN Proper Shipping Name: ISOPROPANOL  
 14.3 Transport Hazard Class(es)  
     Class: 3  
     Label(s): 3  
 14.4 Packing Group: II  
 14.5 Environmental Hazards: No  
 14.6 Special precautions for user: Not determined.

**IMDG**

14.1 UN Number: UN 1219  
 14.2 UN Proper Shipping Name: ISOPROPANOL  
 14.3 Transport Hazard Class(es)  
     Class: 3  
     Label(s): 3  
     EmS No.: F-E, S-D  
 14.4 Packing Group: II  
 14.5 Environmental Hazards: No  
 14.6 Special precautions for user: Not determined.

**IATA**

14.1 UN Number: UN 1219  
 14.2 Proper Shipping Name: Isopropanol  
 14.3 Transport Hazard Class(es):  
     Class: 3  
     Label(s): 3  
 14.4 Packing Group: II  
 14.5 Environmental Hazards: No  
 14.6 Special precautions for user: Not determined.

**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code:** not applicable

**SECTION 15: Regulatory information**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

**EU Regulations**

**Regulation (EC) No. 2037/2000 Substances that deplete the ozone layer:** none

**Regulation (EC) No. 850/2004 on persistent organic pollutants:** none

**Regulation (EC) No. 689/2008 Import and export of dangerous chemicals:** none

**Regulation (EC) No. 1907/2006 REACH Annex XIV Substance subject to authorisation, as amended:** none

**Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction on marketing and use:**

Chemical name	CAS-No.	Concentration
Isopropyl alcohol	67-63-0	100%

**Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens and mutagens at work.:** none

**Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breast feeding.:** none

**Directive 96/82/EC (Seveso III): on the control of major accident hazards involving dangerous substances:**

Chemical name	CAS-No.	Concentration
Isopropyl alcohol	67-63-0	100%

**EU. Regulation No. 166/2006 PRTR (Pollutant Release and Transfer Registry), Annex II: Pollutants:**  
none

**Directive 98/24/EC on the protection of workers from the risks related to chemical agents at work:**

Chemical name	CAS-No.	Concentration
Isopropyl alcohol	67-63-0	100%

**15.2 Chemical safety assessment:** No Chemical Safety Assessment has been carried out.

## SECTION 16: Other Information

**Revision Information:** Not relevant.

### References

PBT PBT: persistent, bioaccumulative and toxic substance.  
vPvB vPvB: very persistent and very bioaccumulative substance.

**Key literature references and sources for data:** No data available.

### Wording of the H-statements in sections 2 and 3

H225 Highly flammable liquid and vapour.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.

**Training information:** No data available.

**Issue Date:** 12.12.2017

**SDS No.:**

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