

# Safety Data Sheet

acc. to OSHA HCS

Revision date 07/07/2024

* 1 Identification	
· Product identifier	
· Product Name: Isopropanol	
· Part number: WRK-120D	
· CAS Number:	67-63-0
· EC number:	200-661-7
· Index number:	603-117-00-0
· Application of the substance / the mixture	Reagents and Standards for Analytical Chemical Laboratory Use
· Details of the supplier of the safety data sheet	
· Manufacturer/Supplier:	Agilent Technologies, Inc. 5301 Stevens Creek Blvd. Santa Clara, CA 95051 USA
· Information department:	Telephone: 800-227-9770 e-mail: pdl-msds_author@agilent.com
· Emergency telephone number:	CHEMTRAC®: 1-800-424-9300

* 2 Hazard(s) identification	
· Classification of the substance or mixture	
 GHS02 Flame	
Flammable Liquids 2	H225 Highly flammable liquid and vapor.
 GHS07	
Eye Irritation 2A	H319 Causes serious eye irritation.
Specific Target Organ Toxicity - Single Exposure 3	H336 May cause drowsiness or dizziness.
· Label elements	
· GHS label elements	The substance is classified and labeled according to the Globally Harmonized System (GHS).
· Hazard pictograms	
 GHS02	 GHS07
· Signal word	Danger
· Hazard-determining components of labeling:	propan-2-ol
· Hazard statements	H225 Highly flammable liquid and vapor. H319 Causes serious eye irritation.

(Contd. on page 2)

US

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 08/23/2024

Revision date 07/07/2024

**Product Name: Isopropanol**

(Contd. of page 1)

H336 May cause drowsiness or dizziness.

**Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P241 Use explosion-proof electrical/ventilating/lighting/equipment.  
P261 Avoid breathing dust/fume/gas/mist/vapors/spray  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P240 Ground/bond container and receiving equipment.  
P242 Use only non-sparking tools.  
P243 Take precautionary measures against static discharge.  
P264 Wash thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
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.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P312 Call a poison center/doctor if you feel unwell.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
P370+P378 In case of fire: Use CO<sub>2</sub>, powder or water spray to extinguish.  
P405 Store locked up.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P403+P235 Store in a well-ventilated place. Keep cool.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Classification system:****NFPA ratings (scale 0 - 4)**

Health = 2  
Fire = 3  
Reactivity = 0

**HMIS-ratings (scale 0 - 4)**

HEALTH	2
FIRE	3
REACTIVITY	0

Health = 2  
Fire = 3  
Reactivity = 0

**Other hazards****Results of PBT and vPvB assessment**

• **PBT:** Not applicable.  
• **vPvB:** Not applicable.

**3 Composition/information on ingredients**

• **Chemical characterization: Substances**  
• **CAS No. Description**  
67-63-0 propan-2-ol  
• **Identification number(s)**  
• **EC number:** 200-661-7  
• **Index number:** 603-117-00-0

US

(Contd. on page 3)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 08/23/2024

Revision date 07/07/2024

**Product Name: Isopropanol**

(Contd. of page 2)

## 4 First-aid measures

- Description of first aid measures**
- General information:** Immediately remove any clothing soiled by the product.
- After inhalation:** Supply fresh air; consult doctor in case of complaints.
- After skin contact:** Immediately rinse with water.
- After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing:** If symptoms persist consult doctor.
- Information for doctor:**
- Most important symptoms and effects, both acute and delayed** No further relevant information available.
- Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

## 5 Fire-fighting measures

- Extinguishing media**
- Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture** No further relevant information available.
- Advice for firefighters**
- Protective equipment:** No special measures required.

## 6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to section 13.  
Ensure adequate ventilation.
- Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.
- Protective Action Criteria for Chemicals**

<b>PAC-1:</b>	400 ppm
<b>PAC-2:</b>	2000* ppm
<b>PAC-3:</b>	12000** ppm

US

(Contd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 08/23/2024

Revision date 07/07/2024

**Product Name: Isopropanol**

(Contd. of page 3)

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
  - Ensure good ventilation/exhaustion at the workplace.
  - Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
  - Keep ignition sources away - Do not smoke.
  - Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
  - **Requirements to be met by storerooms and receptacles:** Store in a cool location.
  - **Information about storage in one common storage facility:** Not required.
  - **Further information about storage conditions:**
    - Keep receptacle tightly sealed.
    - Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

### 67-63-0 propan-2-ol

PEL	Long-term value: 980 mg/m <sup>3</sup> , 400 ppm
REL	Short-term value: 1225 mg/m <sup>3</sup> , 500 ppm
	Long-term value: 980 mg/m <sup>3</sup> , 400 ppm

TLV	Short-term value: 400 ppm
	Long-term value: 200 ppm
	BEI, A4

- **Ingredients with biological limit values:**

### 67-63-0 propan-2-ol

BEI	40 mg/L
	Medium: urine
	Time: end of shift at end of workweek
	Parameter: Acetone (background, nonspecific)

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

- **Breathing equipment:**

When used as intended with Agilent instruments, the use of the product under normal laboratory conditions and with standard practices does not result in significant airborne exposures and therefore respiratory protection is not

(Contd. on page 5)

US

## Safety Data Sheet acc. to OSHA HCS

Printing date 08/23/2024

Revision date 07/07/2024

### Product Name: Isopropanol

(Contd. of page 4)

needed.

Under an emergency condition where a respirator is deemed necessary, use a NIOSH or equivalent approved device/equipment with appropriate organic or acid gas cartridge.

#### · Protection of hands:

Although not recommended for constant contact with the chemicals or for clean-up, nitrile gloves 11-13 mil thickness are recommended for normal use. The breakthrough time is 1 hr. For cleaning a spill where there is direct contact of the chemical, butyl rubber gloves are recommended 12-15 mil thickness with breakthrough times exceeding 4 hrs. Supplier recommendations should be followed.

#### · Material of gloves

For normal use: nitrile rubber, 11-13 mil thickness

For direct contact with the chemical: butyl rubber, 12-15 mil thickness

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

#### · Penetration time of glove material

For normal use: nitrile rubber: 1 hour

For direct contact with the chemical: butyl rubber: >4 hours

#### · Eye protection:



Tightly sealed goggles

## 9 Physical and chemical properties

#### · Information on basic physical and chemical properties

#### · General Information

#### · Appearance:

Form: Fluid

Color: Clear

#### · Odor: Alcohol-like

#### · Odor threshold: Not determined.

#### · pH-value: Not determined.

#### · Change in condition

Melting point/Melting range: -89.5 °C (-129.1 °F)

Boiling point/Boiling range: 82 °C (179.6 °F)

#### · Flash point: 12 °C (53.6 °F)

#### · Flammability (solid, gaseous): Highly flammable.

#### · Auto igniting: 425 °C (797 °F)

#### · Decomposition temperature: Not determined.

#### · Ignition temperature: Not determined.

#### · Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

#### · Explosion limits:

Lower: 2 Vol %

Upper: 12 Vol %

(Contd. on page 6)

US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 08/23/2024

Revision date 07/07/2024

## Product Name: Isopropanol

(Contd. of page 5)

· <b>Vapor pressure at 20 °C (68 °F):</b>	35 hPa (26.3 mm Hg)
· <b>Density at 20 °C (68 °F):</b>	0.785 g/cm <sup>3</sup> (6.55083 lbs/gal)
· <b>Relative density</b>	Not determined.
· <b>Vapor density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water at 20 °C (68 °F):</b>	1 g/l
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic at 20 °C (68 °F):</b>	2.43 mPas
<b>Kinematic:</b>	Not determined.
<b>Organic solvents:</b>	100.0 %
<b>VOC content:</b>	100.00 %
	785.0 g/l / 6.55 lb/gal
· <b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

### · Information on toxicological effects

#### · Acute toxicity:

##### · LD/LC50 values that are relevant for classification:

##### 67-63-0 propan-2-ol

Oral	LD50	4,710 mg/kg (rat)
Dermal	LD50	12,800 mg/kg (rat)
		12,800 mg/kg (rabbit)
Inhalative	LC50/4 h	72.6 mg/L (rat)

#### · Primary irritant effect:

· **on the skin:** No irritant effect.

· **on the eye:** Irritating effect.

· **Sensitization:** No sensitizing effects known.

(Contd. on page 7)

US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 08/23/2024

Revision date 07/07/2024

## Product Name: Isopropanol

(Contd. of page 6)

- Additional toxicological information:

- Carcinogenic categories

- IARC (International Agency for Research on Cancer)

3

- NTP (National Toxicology Program)

Substance is not listed.

- OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

## 12 Ecological information

- Toxicity

- Aquatic toxicity: No further relevant information available.

- Persistence and degradability No further relevant information available.

- Behavior in environmental systems:

- Bioaccumulative potential No further relevant information available.

- Mobility in soil No further relevant information available.

- Additional ecological information:

- General notes:

Water hazard class 1 (Assessment by list): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- Results of PBT and vPvB assessment

- PBT: Not applicable.

- vPvB: Not applicable.

- Other adverse effects No further relevant information available.

## 13 Disposal considerations

- Waste treatment methods

- Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- Uncleaned packagings:

- Recommendation: Disposal must be made according to official regulations.

- Recommended cleansing agent: Water, if necessary with cleansing agents.

## 14 Transport information

- UN-Number

- DOT, IMDG, IATA

UN1219

- UN proper shipping name

- DOT

- IMDG, IATA

Isopropanol

ISOPROPANOL (ISOPROPYL ALCOHOL)

(Contd. on page 8)

US

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 08/23/2024

Revision date 07/07/2024

<b>Product Name:</b> Isopropanol
----------------------------------

<ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>DOT</b></li> </ul>
---



<ul style="list-style-type: none"> <li>· <b>Class</b> 3 Flammable liquids</li> <li>· <b>Label</b> 3</li> </ul>
--

<ul style="list-style-type: none"> <li>· <b>IMDG, IATA</b></li> </ul>
---



<ul style="list-style-type: none"> <li>· <b>Class</b> 3 Flammable liquids</li> <li>· <b>Label</b> 3</li> </ul>
--

<ul style="list-style-type: none"> <li>· <b>Packing group</b></li> </ul>
--

<ul style="list-style-type: none"> <li>· <b>DOT, IMDG, IATA</b> II</li> </ul>
---

<ul style="list-style-type: none"> <li>· <b>Environmental hazards:</b> Not applicable.</li> </ul>
---

<ul style="list-style-type: none"> <li>· <b>Special precautions for user</b> Warning: Flammable liquids</li> </ul>
--

<ul style="list-style-type: none"> <li>· <b>Hazard identification number (Kemler code):</b> 33</li> </ul>
---

<ul style="list-style-type: none"> <li>· <b>EMS Number:</b> F-E,S-D</li> </ul>
--

<ul style="list-style-type: none"> <li>· <b>Stowage Category</b> B</li> </ul>
---

<ul style="list-style-type: none"> <li>· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> Not applicable.</li> </ul>
--

<ul style="list-style-type: none"> <li>· <b>Transport/Additional information:</b></li> </ul>
--

<ul style="list-style-type: none"> <li>· <b>DOT</b></li> </ul>
--

<ul style="list-style-type: none"> <li>· <b>Quantity limitations</b> On passenger aircraft/rail: 5 L On cargo aircraft only: 60 L</li> </ul>
--

<ul style="list-style-type: none"> <li>· <b>IMDG</b></li> </ul>
---

<ul style="list-style-type: none"> <li>· <b>Limited quantities (LQ)</b></li> </ul>
--

<ul style="list-style-type: none"> <li>· <b>Excepted quantities (EQ)</b></li> </ul>
---

1L
----

Code: E2
----------

Maximum net quantity per inner packaging: 30 ml
---

Maximum net quantity per outer packaging: 500 ml
--

<ul style="list-style-type: none"> <li>· <b>UN "Model Regulation":</b> UN 1219 ISOPROPANOL (ISOPROPYL ALCOHOL), 3, II</li> </ul>
--

## \* **15 Regulatory information**

<ul style="list-style-type: none"> <li>· <b>Safety, health and environmental regulations/legislation specific for the substance or mixture</b></li> </ul>
---

<ul style="list-style-type: none"> <li>No further relevant information available.</li> </ul>
--

<ul style="list-style-type: none"> <li>· <b>Sara</b></li> </ul>
---

<ul style="list-style-type: none"> <li>· <b>Section 355 (extremely hazardous substances):</b></li> </ul>
--

<ul style="list-style-type: none"> <li>Substance is not listed.</li> </ul>
--

(Contd. on page 9)
--------------------

US
----

# Safety Data Sheet

acc. to OSHA HCS

Printing date 08/23/2024

Revision date 07/07/2024

## Product Name: Isopropanol

(Contd. of page 8)

· **Section 313 (Specific toxic chemical listings):**

Substance is listed.

· **TSCA (Toxic Substances Control Act):**

ACTIVE

· **Hazardous Air Pollutants**

Substance is not listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

Substance is not listed.

· **Chemicals known to cause reproductive toxicity for females:**

Substance is not listed.

· **Chemicals known to cause reproductive toxicity for males:**

Substance is not listed.

· **Chemicals known to cause developmental toxicity:**

Substance is not listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

Substance is not listed.

· **TLV (Threshold Limit Value)**

A4

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

Substance is not listed.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.

· **Department issuing SDS:** Document Control / Regulatory

· **Contact:** pdl-acg-regulatory-cq@agilent.com

· **Date of preparation / last revision** 08/23/2024 / 3

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

(Contd. on page 10)

US

## Safety Data Sheet acc. to OSHA HCS

Printing date 08/23/2024

Revision date 07/07/2024

### Product Name: Isopropanol

(Contd. of page 9)

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

BEI: Biological Exposure Limit

Flammable Liquids 2: Flammable liquids – Category 2

Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A

Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3

\* Data compared to the previous version altered.

US