SECTION 1: Identification

1.1. Identification
Product form : Substance
Trade name : Isopropanol
Chemical name : Isopropyl Alcohol
CAS-No. : 67-63-0
Product code : HP-040769-FP; HPF-040769 FP USP IPA
Formula : C3H8O
Synonyms : 2-Hydroxypropane / 2-Propyl alcohol / 2-Propanol / Isopropanol / Propan-2-ol / ISOPROPYL ALCOHOL / Propanol, 2- / Isopropylic alcohol

1.2. Recommended use and restrictions on use
Use of the substance/mixture : Solvent; Antiseptic; Deicing/antifreeze agent; Chemical feedstock, etc.

1.3. Supplier
Monument Chemical
16717 Jacintoport Blvd.
Houston, TX 77015 - USA
T (281) 452-5951 - F (281) 457-1127
sds@monumentchemical.com - www.monumentchemical.com

1.4. Emergency telephone number
Emergency number : 24 HR CHEMTREC: 1-800-424-9300 (International +1 703-741-5970); 24 HR Emergency Assistance: 1-832-376-2026

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture
GHS US classification
Flammable liquids Category 2 H225 Highly flammable liquid and vapor
Serious eye damage/eye irritation Category 2A H319 Causes serious eye irritation
Specific target organ toxicity (single exposure) Category 3 H336 May cause drowsiness or dizziness
Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements
GHS US labeling
Hazard pictograms (GHS US) :

Signal word (GHS US) : Danger
Hazard statements (GHS US) :
H225 - Highly flammable liquid and vapor
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness

Precautionary statements (GHS US) :
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.
P240 - Ground/Bond container and receiving equipment.
P241 - Use explosion-proof electrical, lighting, ventilating equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P261 - Avoid breathing dust, gas, fume, spray, mist, vapors.
P264 - Wash hands thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear eye protection, protective clothing, protective gloves.
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse
Isopropanol
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2.3. Other hazards which do not result in classification
No additional information available

2.4. Unknown acute toxicity (GHS US)
Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl Alcohol</td>
<td>(CAS-No.) 67-63-0</td>
<td>≥ 99.8</td>
</tr>
</tbody>
</table>

Full text of hazard classes and H-statements: see section 16

3.2. Mixtures
Not applicable

SECTION 4: First-aid measures

4.1. Description of first-aid measures

First-aid measures general: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

First-aid measures after skin contact: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing.

First-aid measures after eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Consult an eye specialist. Get medical advice/attention.

First-aid measures after ingestion: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and symptoms: Based on available data, the classification criteria are not met.

Symptoms/effects after inhalation: May cause drowsiness or dizziness.

Symptoms/effects after eye contact: Causes serious eye irritation.

4.3. Immediate medical attention and special treatment, if necessary
No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media


Unsuitable extinguishing media: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard: Highly flammable liquid and vapor.

Explosion hazard: May form flammable/explosive vapor-air mixture.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.
SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

6.1.1. For non-emergency personnel

Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment: Equip cleanup crew with proper protection. Avoid breathing dust, fume, gas, mist, spray, vapors.

Emergency procedures: Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed: Handle empty containers with care because residual vapors are flammable.

Precautions for safe handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No open flames. No smoking. Use only non-sparking tools. Avoid breathing dust, fume, gas, mist, spray, vapors. Use only outdoors or in a well-ventilated area.

Hygiene measures: Wash hands thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures: Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical, lighting, Ventilation equipment.

Storage conditions: Keep only in the original container in a cool, well ventilated place away from Ignition sources, Incompatible materials. Keep in fireproof place. Keep container tightly closed.

Incompatible products: Strong bases. Strong acids.

Incompatible materials: Sources of ignition. Direct sunlight. Heat sources.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Isopropyl Alcohol (67-63-0)

USA - ACGIH - Occupational Exposure Limits

<table>
<thead>
<tr>
<th>Local name</th>
<th>ACGIH TWA (ppm)</th>
<th>ACGIH STEL (ppm)</th>
<th>Remark (ACGIH)</th>
<th>ACGIH chemical category</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Propanol</td>
<td>200 ppm</td>
<td>400 ppm</td>
<td>Eye &amp; URT irr; CNS impair</td>
<td>Not Classifiable as a Human Carcinogen</td>
</tr>
</tbody>
</table>

USA - ACGIH - Biological Exposure Indices

| Biological Exposure Indices (BEI): Acetone - Medium: urine - Sampling time: end of shift at end of workweek (background, nonspecific) |
| Biological Exposure Indices (BEI) | 40 mg/l |

USA - OSHA - Occupational Exposure Limits

| OSHA PEL (TWA) (mg/m³) | 980 mg/m³ |
| OSHA PEL (TWA) (ppm)   | 400 ppm   |

USA - IDLH - Occupational Exposure Limits

| US IDLH (ppm) | 2000 ppm (10% LEL) |
8.2. Appropriate engineering controls
No additional information available

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:
Avoid all unnecessary exposure.

   Hand protection:
   Wear protective gloves.

   Eye protection:
   Chemical goggles or safety glasses

   Respiratory protection:
   Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

Other information:
Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Colorless liquid.</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless</td>
</tr>
<tr>
<td>Odor</td>
<td>alcohol-like</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>36.61 ppm</td>
</tr>
<tr>
<td></td>
<td>90 mg/m³</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>-88 °C ; -126.2 °F</td>
</tr>
<tr>
<td>Boiling point</td>
<td>82.3 °C ; 180.1 °F</td>
</tr>
<tr>
<td>Flash point</td>
<td>12 °C ; 53.6 °F closed cup</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>2.3</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>45.4 mm Hg at 25°C</td>
</tr>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>2.1</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.79</td>
</tr>
<tr>
<td>Specific gravity / density</td>
<td>0.785 g/cm³ (at 20 °C)</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>60.1 g/mol</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in water.</td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water (Log Pow)</td>
<td>0.05 (at 25 °C)</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>399 °C ; 750.2 °F</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>2.599 mm²/s</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>2 – 12.7 vol %</td>
</tr>
</tbody>
</table>
Isopropanol
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according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

9.2. Other information
VOC content : 99.95 %

SECTION 10: Stability and reactivity

10.1. Reactivity
No additional information available

10.2. Chemical stability
Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

10.3. Possibility of hazardous reactions
Not established.

10.4. Conditions to avoid
Direct sunlight. Extremely high or low temperatures. Open flame.

10.5. Incompatible materials
Strong acids. Strong bases.

10.6. Hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

<table>
<thead>
<tr>
<th>Isopropyl Alcohol (67-63-0)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>5050 mg/kg</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>4059 mg/kg</td>
</tr>
<tr>
<td>LC50 inhalation rat (mg/l)</td>
<td>72.6 mg/l/4h</td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>5050 mg/kg body weight</td>
</tr>
<tr>
<td>ATE US (dermal)</td>
<td>4059 mg/kg body weight</td>
</tr>
<tr>
<td>ATE US (vapors)</td>
<td>72.6 mg/l/4h</td>
</tr>
<tr>
<td>ATE US (dust, mist)</td>
<td>72.6 mg/l/4h</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Causes serious eye irritation.
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

<table>
<thead>
<tr>
<th>Isopropyl Alcohol (67-63-0)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>IARC group</td>
<td>3 - Not classifiable</td>
</tr>
</tbody>
</table>

Reproductive toxicity : Not classified

STOT-single exposure : May cause drowsiness or dizziness.
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified
Viscosity, kinematic : 2.599 mm²/s

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

Symptoms/effects after inhalation : May cause drowsiness or dizziness.
Symptoms/effects after eye contact : Causes serious eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

07/05/2020 EN (English US)
### Isopropyl Alcohol (67-63-0)

**LC50 fish 1**
9640 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])

**EC50 Daphnia 1**
13299 mg/l (Exposure time: 48 h - Species: Daphnia magna)

**LC50 fish 2**
11130 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

#### 12.2. Persistence and degradability

**Isopropyl Alcohol (67-63-0)**
Persistence and degradability
Not established.

#### 12.3. Bioaccumulative potential

**Isopropyl Alcohol (67-63-0)**
Partition coefficient n-octanol/water (Log Pow)
0.05 (at 25 °C)

Bioaccumulative potential
Not established.

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Other adverse effects

Other information
Avoid release to the environment.

### SECTION 13: Disposal considerations

**13.1. Disposal methods**

Product/Packaging disposal recommendations
Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Additional information
Handle empty containers with care because residual vapors are flammable.

Ecology - waste materials
Avoid release to the environment.

### SECTION 14: Transport information

**Department of Transportation (DOT)**

In accordance with DOT

Transport document description
UN1219 Isopropanol, 3, II

UN-No.(DOT)
UN1219

Proper Shipping Name (DOT)
Isopropanol

Class (DOT)
3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Packing group (DOT)
II - Medium Danger

Hazard labels (DOT)
3 - Flammable liquid

**DOT Packaging Non Bulk (49 CFR 173.xxx)**
202

**DOT Packaging Bulk (49 CFR 173.xxx)**
242

**DOT Special Provisions (49 CFR 172.102)**
IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 °C (1.1 bar at 122 F), or 130 kPa at 55 °C (1.3 bar at 131 F) are authorized.

T4 - 2.65 178.274(d)(2) Normal............. 178.275(d)(3)

TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.

**DOT Packaging Exceptions (49 CFR 173.xxx)**
4b;150

**DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)**
5 L

**DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)**
60 L
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DOT Vessel Stowage Location
B - (i) The material may be stowed “on deck” or “under deck” on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) “On deck only” on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.

Emergency Response Guide (ERG) Number
129

Other information
No supplementary information available.

Transport by sea

Transport document description (IMDG)
UN 1219 ISOPROPANOL (ISOPROPYL ALCOHOL), 3, II (12°C c.c.)
UN-No. (IMDG)
1219
Proper Shipping Name (IMDG)
ISOPROPANOL (ISOPROPYL ALCOHOL)
Class (IMDG)
3 - Flammable liquids
Packing group (IMDG)
II - substances presenting medium danger
Limited quantities (IMDG)
1 L

Air transport

Transport document description (IATA)
UN 1219 Isopropanol, 3, II
UN-No. (IATA)
1219
Proper Shipping Name (IATA)
Isopropanol
Class (IATA)
3 - Flammable Liquids
Packing group (IATA)
II - Medium Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

Isopropyl Alcohol (67-63-0)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Subject to reporting requirements of United States SARA Section 313
All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Isopropanol
CAS-No. 67-63-0
100%

15.2. International regulations

CANADA

Isopropyl Alcohol (67-63-0)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Isopropyl Alcohol (67-63-0)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

Isopropyl Alcohol (67-63-0)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECS (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on INSG (Mexican National Inventory of Chemical Substances)
Listed on the TCSI (Taiwan Chemical Substance Inventory)
15.3. US State regulations

<table>
<thead>
<tr>
<th>Isopropyl Alcohol (67-63-0)</th>
<th>U.S. - Massachusetts - Right To Know List</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>U.S. - New Jersey - Right to Know Hazardous Substance List</td>
</tr>
<tr>
<td></td>
<td>U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List</td>
</tr>
<tr>
<td></td>
<td>U.S. - Pennsylvania - RTK (Right to Know) List</td>
</tr>
</tbody>
</table>

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

Revision date : 07/05/2020
Other information : None.

Full text of H-phrases:

<table>
<thead>
<tr>
<th>H225</th>
<th>Highly flammable liquid and vapor</th>
</tr>
</thead>
<tbody>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H336</td>
<td>May cause drowsiness or dizziness</td>
</tr>
</tbody>
</table>

SDS US (GHS HazCom 2012)

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