

Isoamyl Alcohol

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).
Date of Issue: 03/28/2022 Version: 1.0

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Substance

Product Name: Isoamyl Alcohol

Product Code: IA1060

Formula: C5H12O

Synonyms: 1-Butanol, 3-methyl; 2-Methyl-4-butanol; 3-Methyl-1-butanol; 3-methylbutan-1-ol; Isobutyl carbinol; Isopentanol; Isopentyl alcohol

1.2. Intended Use of the Product

Laboratory chemicals

1.3. Name, Address, and Telephone of the Responsible Party

Company

AquaPhoenix Scientific, Inc.

860 Gitts Run Road

Hanover, PA 17331 USA

Tel +1 (717)632-1291

Toll-Free: (866)632-1291

tech@aquaphoenixsci.com

1.4. Emergency Telephone Number

Emergency Number : ChemTel LLC

(800)255-3924 (North America)

+1 (813)248-0585 (International)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

GHS-US/CA Classification

Flam. Liq. 3 H226

Acute Tox. 4 (Inhalation:dust,mist) H332

Skin Irrit. 2 H315

Eye Dam. 1 H318

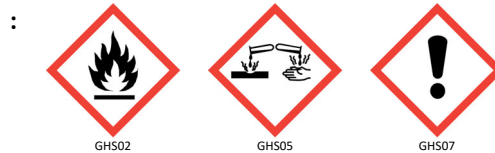
STOT SE 3 H335

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

2.2. Label Elements

GHS-US/CA Labeling

Hazard Pictograms (GHS-US/CA)



Signal Word (GHS-US/CA)

: Danger

Hazard Statements (GHS-US/CA)

: H226 - Flammable liquid and vapor.
H315 - Causes skin irritation.
H318 - Causes serious eye damage.
H332 - Harmful if inhaled.
H335 - May cause respiratory irritation.

Precautionary Statements (GHS-US/CA)

: 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, ventilating, and lighting equipment.
P242 - Use only non-sparking tools.
P243 - Take action to prevent static discharges.

Isoamyl Alcohol

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

P261 - Avoid breathing vapors, mist, or spray.
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves, protective clothing, and eye protection.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER or doctor.
P321 - Specific treatment (see section 4 on this SDS).
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P370+P378 - In case of fire: Use appropriate media (see section 5) to extinguish.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

2.3. Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

2.4. Unknown Acute Toxicity (GHS-US/CA)

No additional information available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Name	Synonyms	Product Identifier	%	GHS Ingredient Classification
1-Butanol, 3-methyl-	2-Methyl-4-butanol / 3-Methyl-1-butanol / 3-methylbutan-1-ol / 3-Methylbutanol-1 / Butan-1-ol, 3-methyl- / Isoamyl Alcohol / Isobutyl carbinol; Isopentan-1-ol; Isopentanol; Isopentyl alcohol	(CAS-No.) 123-51-3	100	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335

Full text of H-statements: see section 16

3.2. Mixture

Not applicable

SECTION 4: FIRST AID MEASURES

4.1. Description of 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).

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention.

Skin Contact: Immediately remove contaminated clothing. Immediately drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.

Eye Contact: Immediately rinse with water for at least 30 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

General: May cause respiratory irritation. Causes skin irritation. Harmful if inhaled. Causes serious eye damage.

Inhalation: Irritation of the respiratory tract and the other mucous membranes. Inhalation is likely to cause adverse health effects including but not limited to: irritation, difficulty breathing, and unconsciousness.

Skin Contact: Redness, pain, swelling, itching, burning, dryness, and dermatitis.

Eye Contact: Causes permanent damage to the cornea, iris, or conjunctiva.

Ingestion: Ingestion may cause adverse effects.

Chronic Symptoms: Repeated exposure may cause skin dryness or cracking.

Isoamyl Alcohol

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Alcohol-resistant foam, carbon dioxide, dry chemical, water spray, fog.

Unsuitable Extinguishing Media: None known.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Flammable liquid and vapor.

Explosion Hazard: May form flammable or explosive vapor-air mixture.

Reactivity: Reacts violently with strong oxidizers. Increased risk of fire or explosion.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO₂).

5.4. Reference to Other Sections

Refer to Section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Use special care to avoid static electric charges. Avoid breathing (vapor, mist, spray). Avoid contact with skin, eyes and clothing.

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel. Stop leak if safe to do so.

6.1.2. For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Eliminate ignition sources first, then ventilate the area.

6.2. Environmental Precautions

Prevent entry to sewers and public waters.

6.3. Methods and Materials for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions. Ventilate area.

Methods for Cleaning Up: Use only non-sparking tools. Clean up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material. Do not take up in combustible material such as: saw dust or cellulosic material. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

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. Avoid breathing vapors, mist, spray. Avoid contact with eyes, skin and clothing. Take precautionary measures against static discharge. Use only non-sparking tools. Use only outdoors or in a well-ventilated area.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations. Take action to prevent static discharges. Ground and bond container and receiving equipment. Use explosion-proof electrical, ventilating, and lighting equipment.

Isoamyl Alcohol

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Storage Conditions: Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store locked up/in a secure area. Store in a well-ventilated place. Keep container tightly closed. Keep in fireproof place.

Incompatible Materials: Acid anhydrides. Acid chlorides. Reducing agents. Strong oxidizers.

7.3. Specific End Use(s)

Laboratory chemicals

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), or Canadian provincial governments.

1-Butanol, 3-methyl- (123-51-3)		
USA ACGIH	ACGIH OEL TWA	100 ppm
USA ACGIH	ACGIH OEL STEL	125 ppm
USA OSHA	OSHA PEL TWA	360 mg/m ³
USA OSHA	OSHA PEL TWA	100 ppm
USA NIOSH	NIOSH REL TWA	360 mg/m ³
USA NIOSH	NIOSH REL TWA	100 ppm
USA NIOSH	NIOSH REL STEL	450 mg/m ³
USA NIOSH	NIOSH REL STEL	125 ppm
USA IDLH	IDLH	500 ppm
Alberta	OEL STEL	451 mg/m ³
Alberta	OEL STEL	125 ppm
Alberta	OEL TWA	361 mg/m ³
Alberta	OEL TWA	100 ppm
British Columbia	OEL STEL	125 ppm
British Columbia	OEL TWA	100 ppm
Manitoba	OEL STEL	125 ppm
Manitoba	OEL TWA	100 ppm
New Brunswick	OEL STEL	452 mg/m ³
New Brunswick	OEL STEL	125 ppm
New Brunswick	OEL TWA	361 mg/m ³
New Brunswick	OEL TWA	100 ppm
Newfoundland & Labrador	OEL STEL	125 ppm
Newfoundland & Labrador	OEL TWA	100 ppm
Nova Scotia	OEL STEL	125 ppm
Nova Scotia	OEL TWA	100 ppm
Nunavut	OEL STEL	125 ppm
Nunavut	OEL TWA	100 ppm
Northwest Territories	OEL STEL	125 ppm
Northwest Territories	OEL TWA	100 ppm
Ontario	OEL STEL	125 ppm
Ontario	OEL TWA	100 ppm
Prince Edward Island	OEL STEL	125 ppm
Prince Edward Island	OEL TWA	100 ppm
Québec	VECD OEL STEL	452 mg/m ³
Québec	VECD OEL STEL	125 ppm
Québec	VEMP OEL TWA	361 mg/m ³
Québec	VEMP OEL TWA	100 ppm
Saskatchewan	OEL STEL	125 ppm
Saskatchewan	OEL TWA	100 ppm
Yukon	OEL STEL	450 mg/m ³

Isoamyl Alcohol

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Yukon	OEL STEL	125 ppm
Yukon	OEL TWA	360 mg/m ³
Yukon	OEL TWA	100 ppm

8.2. Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Gas detectors should be used when flammable gases or vapors may be released. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Gas detectors should be used when toxic gases may be released.

Personal Protective Equipment: Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection.



Materials for Protective Clothing: Chemically resistant materials and fabrics. Wear fire/flammable resistant/retardant clothing.

Hand Protection: Wear protective gloves.

Eye and Face Protection: Chemical safety goggles.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Colorless
Odor	: No data available
Odor Threshold	: No data available
pH	: No data available
Evaporation Rate	: No data available
Melting Point	: No data available
Freezing Point	: No data available
Boiling Point	: 130.7 °C (267.26 °F)
Flash Point	: 43.5 °C (110.3 °F)
Auto-ignition Temperature	: 335 °C (635 °F)
Decomposition Temperature	: No data available
Flammability (solid, gas)	: Not applicable
Lower Flammable Limit	: No data available
Upper Flammable Limit	: No data available
Vapor Pressure	: 3 hPa at 20 °C (68 °F)
Relative Vapor Density at 20°C	: No data available
Relative Density	: 0.808
Specific Gravity	: No data available
Solubility	: Water: 26.4 g/l
Partition Coefficient: N-Octanol/Water	: No data available
Viscosity	: No data available
Viscosity, Kinematic	: 5.32 mm ² /s at 20 °C (68 °F)
Viscosity, Dynamic	: 4.3 mPa·s at 20 °C (68 °F)

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity:

Reacts violently with strong oxidizers. Increased risk of fire or explosion.

10.2. Chemical Stability:

Flammable liquid and vapor. May form flammable or explosive vapor-air mixture.

Isoamyl Alcohol

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

10.3. Possibility of Hazardous Reactions:

Hazardous polymerization will not occur.

10.4. Conditions to Avoid:

Direct sunlight, extremely high or low temperatures, heat, hot surfaces, sparks, open flames, incompatible materials, and other ignition sources.

10.5. Incompatible Materials:

Acid anhydrides. Acid chlorides. Reducing agents. Strong oxidizers.

10.6. Hazardous Decomposition Products:

Thermal decomposition may produce: Carbon oxides (CO, CO₂).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects - Product

Acute Toxicity (Oral): Not classified

Acute Toxicity (Dermal): Not classified

Acute Toxicity (Inhalation): Harmful if inhaled.

LD50 and LC50 Data:

1-Butanol, 3-methyl- (123-51-3)	
LD50 Oral Rat	5770 mg/kg
LD50 Dermal Rabbit	3250 mg/kg
LC50 Inhalation Rat	> 2000 ppm (Exposure time: 8 h)

Skin Corrosion/Irritation: Causes skin irritation.

Eye Damage/Irritation: Causes serious eye damage.

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): May cause respiratory irritation.

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Irritation of the respiratory tract and the other mucous membranes. Inhalation is likely to cause adverse health effects including but not limited to: irritation, difficulty breathing, and unconsciousness.

Symptoms/Injuries After Skin Contact: Redness, pain, swelling, itching, burning, dryness, and dermatitis.

Symptoms/Injuries After Eye Contact: Causes permanent damage to the cornea, iris, or conjunctiva.

Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects.

Chronic Symptoms: Repeated exposure may cause skin dryness or cracking.

11.2. Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

1-Butanol, 3-methyl- (123-51-3)	
LD50 Oral Rat	5770 mg/kg
LD50 Dermal Rabbit	3250 mg/kg
LC50 Inhalation Rat	> 2000 ppm (Exposure time: 8 h)

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General: Not classified.

1-Butanol, 3-methyl- (123-51-3)	
LC50 Fish	700 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])

12.2. Persistence and Degradability

Isoamyl Alcohol	
Persistence and Degradability	Readily biodegradable.

12.3. Bioaccumulative Potential

Isoamyl Alcohol	
Bioaccumulative Potential	Not established.

1-Butanol, 3-methyl- (123-51-3)	
---------------------------------	--

Isoamyl Alcohol

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Partition coefficient n-octanol/water (Log Pow)	1.28
---	------

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. Waste treatment methods

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

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

Ecology - Waste Materials: Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1. In Accordance with DOT

Proper Shipping Name : PENTANOLS

Hazard Class : 3

Identification Number : UN1105

Label Codes : 3

Packing Group : III

ERG Number : 129



14.2. In Accordance with IMDG

Proper Shipping Name : PENTANOLS

Hazard Class : 3

Identification Number : UN1105

Label Codes : 3

Packing Group : III

EmS-No. (Fire) : F-E

EmS-No. (Spillage) : S-D



14.3. In Accordance with IATA

Proper Shipping Name : PENTANOLS

Hazard Class : 3

Identification Number : UN1105

Label Codes : 3

Packing Group : III

ERG Code (IATA) : 3L



14.4. In Accordance with TDG

Proper Shipping Name : PENTANOLS

Hazard Class : 3

Identification Number : UN1105

Label Codes : 3

Packing Group : III



SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

Isoamyl Alcohol

SARA Section 311/312 Hazard Classes	Health hazard - Acute toxicity (any route of exposure) Health hazard - Serious eye damage or eye irritation Health hazard - Skin corrosion or Irritation Health hazard - Specific target organ toxicity (single or repeated exposure) Physical hazard - Flammable (gases, aerosols, liquids, or solids)
-------------------------------------	---

1-Butanol, 3-methyl- (123-51-3)

Isoamyl Alcohol

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

15.2. US State Regulations

1-Butanol, 3-methyl- (123-51-3)

U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - Pennsylvania - RTK (Right to Know) List

U.S. - Massachusetts - Right To Know List

15.3. Canadian Regulations

1-Butanol, 3-methyl- (123-51-3)

Listed on the Canadian DSL (Domestic Substances List)

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of Preparation or Latest Revision : 03/28/2022

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR) SOR/2015-17.

GHS Full Text Phrases:

Acute Tox. 4 (Inhalation)	Acute toxicity (inhalation) Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Flam. Liq. 3	Flammable liquids Category 3
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H226	Flammable liquid and vapor
H315	Causes skin irritation
H318	Causes serious eye damage
H332	Harmful if inhaled
H335	May cause respiratory irritation

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

NA GHS SDS 2015 (Can, US)