

# SAFETY DATA SHEET

## 1. Identification

**Product identifier:** ISOPENTYL ALCOHOL

**Other means of identification**

**Product No.:** 2992, 9038

**Recommended use and restriction on use**

**Recommended use:** Not available.

**Restrictions on use:** Not known.

**Manufacturer/Importer/Supplier/Distributor information**

**Manufacturer**

**Company Name:** Avantor Performance Materials, Inc.  
**Address:** 3477 Corporate Parkway, Suite 200  
Center Valley, PA 18034

**Telephone:** Customer Service: 855-282-6867

**Fax:**  
**Contact Person:** Environmental Health & Safety  
**e-mail:** info@avantormaterials.com

**Emergency telephone number:**

24 Hour Emergency: 908-859-2151

Chemtrec: 800-424-9300

## 2. Hazard(s) identification

**Hazard classification**

**Physical hazards**

Flammable liquids Category 3

**Health hazards**

Acute toxicity (Oral) Category 4  
Acute toxicity (Inhalation - vapor) Category 4  
Skin corrosion/irritation Category 2  
Serious eye damage/eye irritation Category 2A  
Specific target organ toxicity - single exposure Category 3

**Label elements**

**Hazard symbol:**



**Signal word:**

Warning

**Hazard statement:** Flammable liquid and vapor.  
Harmful if swallowed.  
Causes skin irritation.  
Causes serious eye irritation.  
May cause respiratory irritation.  
May cause drowsiness or dizziness.

**Precautionary statement**

**Prevention:** Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area.

**Response:** IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

**Storage:** Store in a well-ventilated place. Keep cool. Store locked up. Keep cool.

**Disposal:** Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Other hazards which do not result in GHS classification:** None.

**3. Composition/information on ingredients**

**Substances**

Chemical identity	Common name and synonyms	CAS number	Content in percent (%)*
ISOAMYL ALCOHOL		123-51-3	60 - 100%

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

**4. First-aid measures**

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

**Ingestion:** Call a physician or poison control center immediately. Do NOT induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

**Inhalation:** Move to fresh air. Get medical attention if symptoms persist.

**Skin contact:** Wash skin thoroughly with soap and water. Get medical attention if symptoms occur.

**Eye contact:** Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

**Most important symptoms/effects, acute and delayed**

**Symptoms:** Harmful if swallowed. Harmful if inhaled. Narcotic effect. Irritating to eyes, respiratory system and skin.

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

**Treatment:** Treat symptomatically. Symptoms may be delayed.

**5. Fire-fighting measures**

**General fire hazards:** Flammable liquid and vapor.

**Suitable (and unsuitable) 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.

**Specific hazards arising from the chemical:** Vapors may cause a flash fire or ignite explosively. Vapors may travel considerable distance to a source of ignition and flash back. Prevent buildup of vapors or gases to explosive concentrations. Vapor from the solvent may accumulate in container headspace resulting in flammability hazard.

**Special protective equipment and precautions for firefighters**

**Special fire fighting procedures:** Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting the fire. Fight fire from a protected location. Move containers from fire area if you can do so without risk.

**Special protective equipment for fire-fighters:** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:** ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep unauthorized 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 MSDS for Personal Protective Equipment.

**Methods and material for containment and cleaning up:** Eliminate all ignition sources if safe to do so. Take precautionary measures against static discharges. Stop leak if possible without any risk. Use only 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. Dike far ahead of larger spill for later recovery and disposal.

**Notification Procedures:** Prevent entry into waterways, sewer, basements or confined areas. Inform authorities if large amounts are involved.

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

**7. Handling and storage**

**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/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only 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.

**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.

**8. Exposure controls/personal protection**

**Control parameters**

**Occupational exposure limits**

Chemical identity	Type	Exposure Limit values	Source
ISOAMYL ALCOHOL	TWA	100 ppm	US. ACGIH Threshold Limit Values (2011)
	STEL	125 ppm	US. ACGIH Threshold Limit Values (2011)
	STEL	125 ppm 450 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	REL	100 ppm 360 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	PEL	100 ppm 360 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	100 ppm 360 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	STEL	125 ppm 450 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)

**Appropriate engineering controls** No data available.

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

**General information:** 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. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.

**Eye/face protection:** Wear safety glasses with side shields (or goggles).

**Skin protection**

**Hand protection:** Chemical resistant gloves

**Other:** Wear suitable protective clothing.

**Respiratory protection:** In case of inadequate ventilation use suitable respirator.

**Hygiene measures:** Provide eyewash station and safety shower. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

## 9. Physical and chemical properties

### Appearance

<b>Physical state:</b>	Liquid
<b>Form:</b>	Oily liquid
<b>Color:</b>	Colorless
<b>Odor:</b>	Characteristic
<b>Odor threshold:</b>	No data available.
<b>pH:</b>	No data available.
<b>Melting point/freezing point:</b>	-117.2 °C
<b>Initial boiling point and boiling range:</b>	132 °C
<b>Flash Point:</b>	43 °C (Closed Cup)
<b>Evaporation rate:</b>	0.2 (butyl acetate=1)
<b>Flammability (solid, gas):</b>	Class II Combustible Liquid
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Flammability limit - upper (%):</b>	9 %(V)
<b>Flammability limit - lower (%):</b>	1.2 %(V)
<b>Explosive limit - upper (%):</b>	No data available.
<b>Explosive limit - lower (%):</b>	No data available.
<b>Vapor pressure:</b>	0.32 kPa (25 °C)
<b>Vapor density:</b>	3.04 AIR=1
<b>Relative density:</b>	0.81
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	20 g/l (13.9 °C)
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	1.16
<b>Auto-ignition temperature:</b>	350 °C
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</b>	No data available.
<b>Other information</b>	
<b>Molecular weight:</b>	88.15 g/mol (C <sub>5</sub> H <sub>12</sub> O)

## 10. Stability and reactivity

<b>Reactivity:</b>	No dangerous reaction known under conditions of normal use.
<b>Chemical stability:</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions:</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid:</b>	Heat, sparks, flames.
<b>Incompatible materials:</b>	Strong oxidizers
<b>Hazardous decomposition products:</b>	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Ingestion:</b>	Harmful if swallowed.
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<b>Inhalation:</b>	Harmful if inhaled. Irritating to respiratory system. May cause drowsiness or dizziness.
<b>Skin contact:</b>	May be absorbed through the skin. Causes skin irritation.
<b>Eye contact:</b>	Causes serious eye irritation.

#### Information on toxicological effects

##### Acute toxicity (list all possible routes of exposure)

###### Oral

<b>Product:</b>	LD 50 (Rat): 1,300 mg/kg LD 50 (Rabbit): 3,400 mg/kg
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###### Dermal

<b>Product:</b>	LD 50 (Rabbit): 3,970 mg/kg
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###### Inhalation

<b>Product:</b>	No data available.
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###### Repeated dose toxicity

<b>Product:</b>	No data available.
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###### Skin corrosion/irritation

<b>Product:</b>	Causes skin irritation.
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###### Serious eye damage/eye irritation

<b>Product:</b>	Causes serious eye irritation.
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###### Respiratory or skin sensitization

<b>Product:</b>	Not a skin sensitizer.
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###### Carcinogenicity

<b>Product:</b>	This substance has no evidence of carcinogenic properties.
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###### IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

###### US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

###### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

###### Germ cell mutagenicity

###### In vitro

<b>Product:</b>	No data available.
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###### In vivo

<b>Product:</b>	No data available.
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###### Reproductive toxicity

<b>Product:</b>	No components toxic to reproduction
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###### Specific target organ toxicity - single exposure

<b>Product:</b>	Narcotic effect. Respiratory tract irritation.
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###### Specific target organ toxicity - repeated exposure

<b>Product:</b>	None known.
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###### Aspiration hazard

**Product:** May be harmful if swallowed and enters airways.

**Other effects:** None known.

## 12. Ecological information

### Ecotoxicity:

#### Acute hazards to the aquatic environment:

##### Fish

**Product:** No data available.

##### Aquatic invertebrates

**Product:** No data available.

#### Chronic hazards to the aquatic environment:

##### Fish

**Product:** No data available.

##### Aquatic invertebrates

**Product:** No data available.

##### Toxicity to Aquatic Plants

**Product:** No data available.

### Persistence and degradability

#### Biodegradation

**Product:** There are no data on the degradability of this product.

#### BOD/COD ratio

**Product:** No data available.

### Bioaccumulative potential

#### Bioconcentration factor (BCF)

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

#### Partition coefficient n-octanol / water (log Kow)

**Product:** Log Kow: 1.16

**Mobility in soil:** No data available.

**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.

## 13. Disposal considerations

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

**Contaminated packaging:** Since emptied containers retain product residue, follow label warnings even after container is emptied.

## 14. Transport information

### DOT

UN number:	UN 1105
UN proper shipping name:	Pentanol
Transport hazard class(es)	
Class(es):	3
Label(s):	3
Packing group:	III
Marine Pollutant:	No

### IMDG

UN number:	UN 1105
UN proper shipping name:	PENTANOLS
Transport hazard class(es)	
Class(es):	3
Label(s):	3
EmS No.:	F-E, S-D
Packing group:	III
Marine Pollutant:	No

### IATA

UN number:	UN 1105
Proper Shipping Name:	Pentanol
Transport hazard class(es):	
Class(es):	3
Label(s):	3
Marine Pollutant:	No
Packing group:	III

## 15. Regulatory information

### US federal regulations

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

#### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

#### CERCLA Hazardous Substance List (40 CFR 302.4):

None present or none present in regulated quantities.

#### Superfund amendments and reauthorization act of 1986 (SARA)

##### Hazard categories

Acute (Immediate)  Chronic (Delayed)  Fire  Reactive  Pressure Generating

##### SARA 302 Extremely hazardous substance

None present or none present in regulated quantities.

##### SARA 304 Emergency release notification

None present or none present in regulated quantities.



**SARA 311/312 Hazardous chemical**

Chemical identity	Threshold Planning Quantity
ISOAMYL ALCOHOL	500 lbs

**SARA 313 (TRI reporting)**

None present or none present in regulated quantities.

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)**

None present or none present in regulated quantities.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):**

None present or none present in regulated quantities.

**US state regulations**

**US. California Proposition 65**

No ingredient regulated by CA Prop 65 present.

**US. New Jersey Worker and Community Right-to-Know Act**

ISOAMYL ALCOHOL	Listed
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**US. Massachusetts RTK - Substance List**

ISOAMYL ALCOHOL	Listed
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**US. Pennsylvania RTK - Hazardous Substances**

ISOAMYL ALCOHOL	Listed
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**US. Rhode Island RTK**

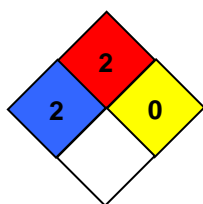
ISOAMYL ALCOHOL	Listed
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
**Inventory Status:**

Australia AICS:	On or in compliance with the inventory
Canada DSL Inventory List:	On or in compliance with the inventory
EINECS, ELINCS or NLP:	On or in compliance with the inventory
Japan (ENCS) List:	On or in compliance with the inventory
China Inv. Existing Chemical Substances:	Not in compliance with the inventory.
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory
Canada NDSL Inventory:	Not in compliance with the inventory.
Philippines PICCS:	On or in compliance with the inventory
US TSCA Inventory:	On or in compliance with the inventory
New Zealand Inventory of Chemicals:	On or in compliance with the inventory
Japan ISHL Listing:	On or in compliance with the inventory
Japan Pharmacopoeia Listing:	Not in compliance with the inventory.

**16. Other information, including date of preparation or last revision**

**NFPA Hazard ID**



	Flammability
	Health
	Reactivity
	Special hazard.

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

**Issue date:**

09-19-2014

SDS\_US - SDS000001600

**Revision date:** No data available.

**Version #:** 1.1

**Further information:** No data available.

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