



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

<b>Material name</b>	<b>2-PROPANOL</b>
<b>Version #</b>	02
<b>Revision date</b>	03-25-2011
<b>CAS #</b>	67-63-0
<b>Product Codes</b>	<b>J.T.Baker: 5373, 5863, 5870, 5873, 5967, 5977, 5978, 5986, 5996, 9045, 9055, 9059, 9062, 9078, 9079, 9081, 9082, 9083, 9084, 9088, 9089, 9095, 9334, 9827</b>
<b>Synonym(s)</b>	sec-propanol * Dimethyl carbinol * sec-Propyl alcohol * ISOPROPYL ALCOHOL * Isopropanol
<b>Manufacturer</b>	Avantor Performance Materials, Inc.
<b>Address</b>	222 Red School Lane Phillipsburg, NJ 08865 US
<b>Customer Service</b>	800-582-2537
<b>24 Hour Emergency</b>	908-859-2151
<b>Chemtrec</b>	800-424-9300

## 2. Hazards Identification

<b>Emergency overview</b>	<b>WARNING</b>
	Flammable liquid and vapor. Causes eye irritation. Harmful if swallowed - may enter lungs if swallowed or vomited. Prolonged or repeated skin contact may cause drying, cracking, or irritation. High vapor concentrations may cause drowsiness and irritation of the eyes or respiratory tract.
<b>OSHA regulatory status</b>	This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
<b>Potential health effects</b>	
<b>Routes of exposure</b>	Inhalation. Ingestion. Skin contact. Eye contact.
<b>Eyes</b>	Causes eye irritation. High vapor/aerosol concentrations may be irritating.
<b>Skin</b>	Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping.
<b>Inhalation</b>	May cause irritation to the mucous membranes and upper respiratory tract. In high concentrations, vapors and aerosol mists have a narcotic effect and may cause headache, fatigue, dizziness and nausea.
<b>Ingestion</b>	Irritating. May cause nausea, stomach pain and vomiting. Ingestion may result in vomiting; aspiration (breathing) of vomitus into lungs must be avoided as even small quantities may result in aspiration pneumonitis.
<b>Target organs</b>	Eyes. Respiratory system. Skin. Central nervous system.
<b>Chronic effects</b>	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
<b>Potential environmental effects</b>	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.

## 3. Composition / Information on Ingredients

<b>Components</b>	<b>CAS #</b>	<b>Percent</b>
2-PROPANOL	67-63-0	98 - 100

## 4. First Aid Measures

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### First aid procedures

<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>Skin contact</b>	Wash off with soap and water. Get medical attention if symptoms occur. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse.
<b>Inhalation</b>	Move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.
<b>Ingestion</b>	Call a physician or poison control center immediately. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs.

### Notes to physician

Treat symptomatically.

### General advice

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

## 5. Fire Fighting Measures

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### Flammable properties

HIGHLY FLAMMABLE! Vapors may cause a flash fire or ignite explosively. Vapors may travel considerable distance to a source of ignition and flash back. Heat may cause the containers to explode.

### Extinguishing media

**Suitable extinguishing media** Water spray. Foam. Dry powder. Carbon dioxide (CO<sub>2</sub>).

**Unsuitable extinguishing media** Do not use water jet as an extinguisher, as this will spread the fire.

### Protection of firefighters

**Specific hazards arising from the chemical** Can be ignited easily and burns vigorously. Vapor from the solvent may accumulate in container headspace resulting in flammability hazard.

**Protective equipment and precautions for firefighters** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Move containers from fire area if you can do so without risk. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. Some of these materials, if spilled, may evaporate leaving a flammable residue. Cool containers exposed to flames with water until well after the fire is out.

**Special protective equipment for fire-fighters** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**Specific methods** In the event of fire and/or explosion do not breathe fumes. Use water spray to cool unopened containers.

**Hazardous combustion products** Carbon monoxide and carbon dioxide.

## 6. Accidental Release Measures

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### Personal precautions

Wear appropriate protective equipment and clothing during clean-up. Keep unnecessary personnel away. Keep upwind. Keep out of low areas. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Local authorities should be advised if significant spillages cannot be contained.

### Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

### Methods for containment

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop the flow of material, if this is without risk. Prevent entry into waterways, sewer, basements or confined areas. Dike the spilled material, where this is possible.

## Methods for cleaning up

Use only non-sparking tools. All equipment used when handling the product must be grounded.

Large Spills: Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Dike far ahead of spill for later disposal.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Collect in a non-combustible container for prompt disposal.

Never return spills in original containers for re-use. Clean surface thoroughly to remove residual contamination. Clean up in accordance with all applicable regulations.

J. T. Baker SOLUSORB® solvent adsorbent is recommended for spills of this product.

## 7. Handling and Storage

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### 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. Wear appropriate personal protective equipment. Avoid breathing high vapor concentrations. Avoid contact with eyes and prolonged skin contact. Do not taste or swallow. Use only with adequate ventilation. Wash thoroughly after handling. See Section 8 of the MSDS for Personal Protective Equipment.

### Storage

Keep away from food, drink and animal feedingstuffs. Keep out of the reach of children. 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

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### Occupational exposure limits

#### ACGIH

##### Material

##### Type

##### Value

2-PROPANOL (67-63-0)

BEL

40.0000 mg/l

STEL

400.0000 ppm

TWA

200.0000 ppm

#### U.S. - OSHA

##### Material

##### Type

##### Value

2-PROPANOL (67-63-0)

PEL

400.0000 ppm

980.0000 mg/m3

### Engineering controls

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. Explosion proof exhaust ventilation should be used.

### Personal protective equipment

#### Eye / face protection

Wear safety glasses with side shields (or goggles).

#### Skin protection

Wear appropriate chemical resistant clothing. Wear appropriate chemical resistant gloves.

#### Respiratory protection

A NIOSH- approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

#### General hygiene considerations

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 and protective equipment to remove contaminants.

## 9. Physical & Chemical Properties

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<b>Appearance</b>	Clear.
<b>Color</b>	Colorless.
<b>Odor</b>	Acetone-like. Alcoholic
<b>Odor threshold</b>	Not available.
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>pH</b>	Not available.
<b>Melting point</b>	-128.2 °F (-88.5 °C)
<b>Freezing point</b>	-128.2 °F (-88.5 °C)
<b>Boiling point</b>	181.4 °F (82.5 °C)
<b>Flash point</b>	53.6 °F (12 °C) Closed Cup
<b>Evaporation rate</b>	2.83 BuAc
<b>Flammability limits in air, upper, % by volume</b>	12.7
<b>Flammability limits in air, lower, % by volume</b>	2
<b>Vapor pressure</b>	6.0527 kPa
<b>Vapor density</b>	2.1
<b>Specific gravity</b>	0.785
<b>Relative density</b>	Not available.
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	0.05
<b>Auto-ignition temperature</b>	750.2 °F (399 °C)
<b>Decomposition temperature</b>	Not available.
<b>Percent volatile</b>	100 %
<b>Molecular weight</b>	60.1 g/mol
<b>Molecular formula</b>	C3-H8-O

## 10. Chemical Stability & Reactivity Information

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<b>Chemical stability</b>	Stable under normal temperature conditions.
<b>Conditions to avoid</b>	Heat, flames and sparks. Sunlight.
<b>Incompatible materials</b>	Strong oxidizing agents. Acetaldehyde. Acids. Chlorine. Ethylene Oxide Hydrogen peroxide (H2O2) and Sulfuric acid. Isocyanates. Aluminum.
<b>Hazardous decomposition products</b>	At thermal decomposition temperatures, carbon monoxide and carbon dioxide.
<b>Possibility of hazardous reactions</b>	Will not occur.

## 11. Toxicological Information

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### Toxicological data

#### Product

2-PROPANOL (67-63-0)

#### Test Results

Acute Dermal LD50 Rabbit: 12800 mg/kg

Acute Oral LD50 Rat: 5045 mg/kg

**Sensitization** Not a skin sensitizer.

**Acute effects** Harmful if swallowed - may enter lungs if swallowed or vomited.

<b>Local effects</b>	Causes eye irritation. Prolonged or repeated skin contact may cause drying, cracking, or irritation. High vapor concentrations may cause drowsiness and irritation of the eyes or respiratory tract.
<b>Chronic effects</b>	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
<b>ACGIH Carcinogens</b>	
2-PROPANOL (CAS 67-63-0)	A4 Not classifiable as a human carcinogen.
<b>Skin corrosion/irritation</b>	Defatting, drying and cracking of skin.
<b>Epidemiology</b>	No epidemiological data is available for this product.
<b>Mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Neurological effects</b>	High vapor/aerosol concentrations (attainable only at elevated temperatures) may cause central nervous system effects such as dizziness, drowsiness or headaches.
<b>Reproductive effects</b>	Contains no ingredient listed as toxic to reproduction
<b>Teratogenicity</b>	No data available to indicate product or any components present at greater than 0.1% may cause birth defects.
<b>Symptoms and target organs</b>	Moderate eye irritation. Upper respiratory tract irritation. Drowsiness and dizziness.

## 12. Ecological Information

Ecotoxicological data	Test Results
Product	
2-PROPANOL (67-63-0)	LC50 Water flea (Daphnia magna): 10000 mg/l 24.00 hours LC50 Western mosquitofish (Gambusia affinis): > 1400 mg/l 96.00 hours
<b>Ecotoxicity</b>	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.
<b>Environmental effects</b>	Ecological injuries are not known or expected under normal use.
<b>Persistence and degradability</b>	Expected to be readily biodegradable.
<b>Partition coefficient (n-octanol/water)</b>	0.05

## 13. Disposal Considerations

<b>Waste codes</b>	D001: Waste Flammable material with a flash point <140 F
<b>Disposal instructions</b>	Dispose of this material and its container to hazardous or special waste collection point. Incinerate the material under controlled conditions in an approved incinerator. All wastes must be handled in accordance with local, state and federal regulations.
<b>Contaminated packaging</b>	Since emptied containers retain product residue, follow label warnings even after container is emptied. Residual vapors may explode on ignition; do not cut, drill, grind, or weld on or near this container. Offer rinsed packaging material to local recycling facilities.

## 14. Transport Information

### DOT

#### Basic shipping requirements:

<b>UN number</b>	UN1219
<b>Proper shipping name</b>	Isopropanol
<b>Hazard class</b>	3
<b>Packing group</b>	II
<b>Additional information:</b>	
<b>Special provisions</b>	IB2, T4, TP1

**Basic shipping requirements:**

Labels required 3  
Additional information:  
Packaging exceptions 150  
Packaging non bulk 202  
Packaging bulk 242  
ERG number 129

**IATA**

**Basic shipping requirements:**

UN number 1219  
Proper shipping name Isopropanol  
Hazard class 3  
Packing group II  
Additional information:  
ERG code 3L

**IMDG**

**Basic shipping requirements:**

UN number 1219  
Proper shipping name ISOPROPANOL  
Hazard class 3  
Packing group II



DOT



IATA



IMDG

**15. Regulatory Information**

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**US federal regulations**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
All components are on the U.S. EPA TSCA Inventory List.

**US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration**

2-PROPANOL (CAS 67-63-0) 1.0 %

**US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance**

2-PROPANOL (CAS 67-63-0) Listed.

**CERCLA (Superfund) reportable quantity**

2-PROPANOL: 100.0000

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - Yes  
Delayed Hazard - No  
Fire Hazard - Yes  
Pressure Hazard - No  
Reactivity Hazard - No

**Section 311 hazardous chemical** Yes

## Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

## State regulations

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

### US - New Jersey Community RTK (EHS Survey): Reportable threshold

2-PROPANOL (CAS 67-63-0) 500 LBS

### US - Pennsylvania RTK - Hazardous Substances: Listed substance

2-PROPANOL (CAS 67-63-0) Listed.

## Saf-T-Data

Health: 1 - Slight  
Flammability: 3 - Severe (Flammable)  
Reactivity: 1 - Slight  
Contact: 2 - Moderate  
Lab Protective Equip: DB - GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES; CLASS B EXTINGUISHER  
Storage Color Code: R - Red (Flammable)

## 16. Labeling Info

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### Label Hazard Warning

WARNING

FLAMMABLE LIQUID AND VAPOR. Causes eye irritation. Harmful if swallowed - may enter lungs if swallowed or vomited. Prolonged or repeated skin contact may cause drying, cracking, or irritation. High vapor concentrations may cause drowsiness and irritation of the eyes or respiratory tract.

### Label Precautions

Keep away from heat, sparks and flame. Take precautionary measures against static discharge. Avoid breathing high vapor concentrations. Avoid contact with eyes and prolonged skin contact. Use only with adequate ventilation. Keep container closed. Wash thoroughly after handling.

### Label First Aid

Immediately flush eyes with plenty of water for at least 15 minutes. Flush skin thoroughly with water. If gas/fume/vapor/dust/mist from the material is inhaled, remove the affected person immediately to fresh air. Get medical attention if symptoms persist. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs.

## 17. Other Information

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### NFPA ratings

Health: 2  
Flammability: 3  
Instability: 0

**Disclaimer**

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**Issue date**

03-25-2011

**This data sheet contains changes from the previous version in section(s):**

This document has undergone significant changes and should be reviewed in its entirety.