

SAFETY DATA SHEET

SECTION I - PRODUCT AND COMPANY IDENTIFICATION

Name of the Product: Isopropyl Alcohol 99%

Product Code: RM0640

Product Use: Solvent

Producer:

Perma Incorporated

605 Springs Road

Bedford, MA 01730

Telephone Number for Information: (978) 667-5161

Emergency Phone Number: (978) 808-5118

SECTION II – HAZARD(s) IDENTIFICATION

Classification:

Flammable liquid, Category 2

Eye irritation, Category 2A

Labeling:

Symbol: Flame, Exclamation mark

Signal Word: Danger

Hazard Statement:

Highly flammable liquid and vapor.

Causes serious eye irritation.

May cause drowsiness or dizziness.

Precautionary Statements:

Keep away from heat, sparks, open flame and hot surfaces.

Wash hands and any exposed skin thoroughly after handling.

Wear eye/face protection.

Other Information:

Keep container tightly closed when not in use.

No smoking.

Wear protective gloves and eye/face protection.

Avoid contact with skin, eyes or clothing.

Store in a cool well-ventilated area.

Avoid release to the environment.

SECTION III – Composition/Information on Ingredients

Component	CAS#	Weight (%)
Isopropyl Alcohol	67-63-0	90 - 100

SECTION IV – FIRST AID MEASURES

Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention if irritation develops or persists. Wash contaminated clothing before reuse.

Eye Contact: Move individual away from exposure. Immediately flush eyes with large quantities of clean water for at least 15 minutes. Get immediate medical attention.

Ingestion: DO NOT INDUCE VOMITING. This material may enter the lungs during vomiting. Never give anything by mouth to an unconscious person.

GET IMMEDIATE MEDICAL ATTENTION.

Inhalation: If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet. GET IMMEDIATE MEDICAL ATTENTION.

SECTION V – FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Use a fire fighting agent suitable for flammable liquids such as alcohol resistant foam, carbon dioxide (CO₂) or dry chemical.

Unsuitable Extinguishing Media: High volume water jet.

Specific Hazards during Firefighting: Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous Combustion Products: Carbon oxides.

Specific Extinguishing Methods: Use a water spray to cool fully closed containers.

Further Information: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Protective Equipment & Precautions for Firefighters: Wear self-contained breathing apparatus (SCBA) and full fire-fighting protective clothing. Thoroughly decontaminate all protective equipment after use.

SECTION VI – ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use personal protective equipment.

Ensure adequate ventilation.

Remove all sources of ignition.

Evacuate personnel to safe areas.

Environmental Precautions: Prevent product from entering drains.

Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and lakes or drains inform respective authorities.

Methods for Cleaning Up: Contain spillage, and then collect with noncombustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (see section 13).

SECTION VII – HANDLING AND STORAGE

Advice for Safe Handling: Avoid formation of aerosol.

Do not breathe vapors or mist.

Avoid contact with eyes and skin.

Take precautionary measures against static discharges
Provide sufficient air exchange and/or exhaust in work rooms.
Open carefully as content may be under pressure.
Dispose of rinse water in accordance with local and national regulations.

Conditions for Safe Storage: No smoking.

Keep container tightly closed in a dry and well ventilated area.
Open containers must be carefully resealed and kept upright to prevent leakage.
Observe label precautions.

KEEP OUT OF REACH OF CHILDREN

SECTION VIII – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Isopropyl Alcohol 67-63-0

ACGIH	time weighted average	200 ppm
ACGIH	short term exposure limit	400 ppm
NIOSH REL	time weighted average	400 ppm
NIOSH REL	time weighted average	980 mg/m ³
OSHA Z1	time weighted average	400 ppm
OSHA Z1	time weighted average	980 mg/m ³
OSHA P0	time weighted average	400 ppm
OSHA P0	time weighted average	980 mg/m ³
OSHA P0	short term exposure limit	500 ppm
OSHA P0	short term exposure limit	1,225 mg/m ³

Appropriate Engineering Controls: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental Exposure Controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Exposure Controls: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure levels below TLV(s).

Hygiene Measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/Face Protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Hand Protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers.

8 hours (breakthrough time): butyl rubber

Body Protection: Personal protective equipment for the body should be selected based on the task performed and the risks involved. All personal protective equipment should be approved by a specialist before handling this product.

Other Skin Protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: natural rubber (latex)

SECTION IX – PHYSICAL PROPERTIES

Appearance	Clear, colorless
Odor	Alcohol
Odor Threshold	No data available
Physical State	Liquid
pH	7.0 @ 20 - 25°C (68 - 77°F)
Freezing Point	-92 - -89°C (-134 - -128°F)
Boiling Point	82 - 82.3°C (180 - 180.1°F)
Flash Point (TCC)	12 - 13°C (54 - 55°F)
Evaporation Rate	2 (Butyl Acetate = 1)
Flammability (solid, gas)	No data available
Burning Rate	No data available
Lower Explosion Limit	12 - 19% (V)
Upper Explosion Limit	2.0 - 3.3% (V)
Vapor Pressure	33 - 45.4 mmHg @ 20°C (68°F)
Relative Vapor Density	2.1 @ 15 - 20°C (59 - 68°F) (Air = 1.0)
Relative Density	0.7855 - 0.79 @20°C (68°F)
Density	0.79 g/cm ³ @ 20°C (68°F)
Solubility	Completely miscible
Partition coefficient:	log Pow: 0.05 @ 25°C (77°F) (n-octanol/water)
Auto-Ignition Temperature	363 - 425°C
Decomposition Temperature	No data available
Viscosity	
Dynamic	2.4 - 2.43 mPa.s @ 20°C (68°F)
Kinematic	2.6 mm ² /s @ 25°C (77°F)

SECTION X – STABILITY AND REACTIVITY

Reactivity: No dangerous reactions known under conditions of normal use.

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reactions: No hazards to be specially mentioned.

Conditions to Avoid: Keep away from heat, flame, sparks and other ignition sources.

Incompatible Materials: Acetaldehyde

- Aldehydes
- Aluminum
- Alkali metals
- Amines
- Chlorine
- Ethylene oxide
- Halogens
- Iron
- Isocyanates
- Strong Acids
- Strong oxidizing agents

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide and unburned hydrocarbons.

SECTION XI – TOXICOLOGICAL INFORMATION

Acute Toxicity:

Isopropyl Alcohol 67-63-0

Oral LD50 Rat: 5,045 mg/kg

Inhalation LC50 Rat: 16,000 ppm

Dermal LD50 Rabbit: 12,800 mg/kg

Chronic Toxicity:

No component of this product, present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen or potential carcinogen by NTP, OSHA and or IARC.

Reproductive Toxicity:

Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments.

Target Organs:

Eyes, skin, lungs

SECTION XII – Ecological Information

Aquatic Toxicity:

Isopropyl Alcohol 67-63-0

LC50 Pimephales promelas (fathead minnow): > 1,000 mg/L (96h)

LC50 Daphnia magna (water flea): > 100 mg/l (48h)

SECTION XIII – DISPOSAL CONSIDERATIONS

Waste Disposal Methods: Dispose of in accordance with all applicable local, state and federal regulations. Do not discharge effluent containing this product into lakes, streams, ponds or estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit, and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously

notifying the local sewage treatment plant authority. For guidance, contact your local State Water Board or Regional Office of the EPA.

SECTION XIV – TRANSPORTATION INFORMATION

The shipping classification information in this section is meant as a guide to the overall classification of the product. However, transportation classifications may be subject to change with packaging size.

IATA: UN1219, Isopropanol, 3, II, Flash Point 12 - 13°C (54 -55°F)

IMDG: UN1219, Isopropanol, 3, II

DOT: UN1219, Isopropanol, 3, II

SECTION XV – REGULATORY INFORMATION

TSCA Inventory Status: All components of this material are listed on, or are exempted from the US Toxic Substances Control Act (TSCA) inventory.

US Federal Regulations:

Section 313 of Title III of the Superfund Amendments and Reauthorization ACT of 1986 (SARA). This material does not contain any chemical components with known CAS numbers which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

TSCA 12(b) – Export Notification:

This material does not contain any components that are subject to the US Toxic Substances Control act (TSCA) section 12(b) Export Notification requirements.

Clean Air Act, Section 12 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any reportable HAPs.

California Proposition 65: This product does not contain any chemicals known to the state of California to cause cancer, birth defects or other reproductive harm, at levels which require reporting under the state statute.

SECTION XVI – OTHER INFORMATION

Prepared By: David Sadlo

Preparation Date: February 9, 2016

The information herein is based on data considered to be accurate. However, no warranty is expressed or implied regarding the accuracy of these data or results. Also this shall not establish a legally valid contractual relationship.

Vendor assumes no responsibility for injury to vendee or third person proximately caused if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material

even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in use of the material.

Our products are intended for sale to industrial and commercial customers. We encourage customers to inspect and test our products before use and to satisfy themselves as to suitability for their specific applications.

Warranty: The manufacturer warrants that products sold comply with specifications as represented and will perform satisfactorily if used according to the directions, or the manufacturer will refund or replace any unused portion thereof, for a period of one year from the date of manufacture. The manufacturer does not make any other warranty, or assume responsibility of any kind, expressed or implied regarding the effect or result of the products use; and assumes no responsibility of injury to vendee or third parties proximately caused by the material if reasonable safety procedures are not adhered to.