

1. IDENTIFICATION

Product identifier: Isopropyl Alcohol 99%

Synonym: 9D4

Manufacturer Name: Perrigo Company
Address: 515 Eastern Avenue
Allegan, MI 49010 USA

Telephone number: 269-673-8451

Emergency phone number: 888-464-2986 (U.S. calls)
+1 760-476-3962 Code 333304 (International calls)

Email Address: SDSRequest@perrigo.com

Recommended use: For disinfection of surfaces

Restrictions on use: Use only as directed.

Date of Preparation: February 27, 2015

2. HAZARD(S) IDENTIFICATION

Classification:

Physical	Health
Flammable Liquid Category 2	Eye Irritation Category 2A Specific Target Organ Toxicity Category 3 (respiratory irritation and narcotic effects)

Label Elements:
Warning!



Hazard statement(s)

Highly Flammable liquid and vapor
Causes serious eye irritation.
May cause drowsiness or dizziness.

Precautionary statement(s)

Keep away from heat, sparks, open flames and hot surfaces. No smoking.
Keep container tightly closed.
Ground and bond container and receiving equipment.
Use explosion-proof electrical, ventilating and lighting equipment.
Use only non-sparking tools.

Precautionary statement(s)

Avoid breathing vapors.
Use only outdoors or in a well-ventilated area.
Wash hands thoroughly after handling.
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 attention.
IF inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor if you feel unwell.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
In case of fire: Use water spray, carbon dioxide or alcohol-resistant foam to extinguish.

Take precautionary measures against static discharge.

Store in a well-ventilated place. Keep cool.

Wear eye protection.

Store locked up.

Dispose in accordance with local and national regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Concentration
Isopropanol	67-63-0	99%
Water	7732-18-5	1%

The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

Inhalation: Remove person to fresh air. If irritation occurs or symptoms develop, get medical attention.

Skin contact: This product is intended for use on the skin. In the case of unintentional contact, remove contaminated clothing. Wash skin with soap and water. If irritation develops and persists, get medical attention. Launder clothing before reuse.

Eye contact: Immediately flush eyes with water while lifting the upper and lower lids for 15 minutes. Remove contact lenses, if present and easy to do after 5 minutes of flushing, then continue flushing. Get medical attention if irritation persists.

Ingestion: Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to a person who is unconscious or convulsing. Get medical attention.

Most important symptoms/effects, acute and delayed: Causes serious eye irritation. Ingestion may cause gastrointestinal irritation and nervous system effects. Inhalation of vapors may cause respiratory irritation and dizziness and drowsiness.

Indication of immediate medical attention and special treatment, if necessary: Immediate medical attention may be required for large ingestions.

5. FIRE-FIGHTING MEASURES

Extinguishing media: Use water fog or spray, carbon dioxide, dry chemical or alcohol-resistant foam.

Specific hazards arising from the chemical: Highly flammable liquid and vapor. Vapors are heavier than air and can flow to remote ignition sources and flash back. Vapors may be explosive in confined areas. Vapors will collect in low areas. Vapors may be ignited by static sparks. Flames may be invisible in daylight.

Special protective equipment and precautions for fire-fighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for all fires involving chemicals. Cool fire exposed containers with water.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures: Wear appropriate protective clothing and equipment as described in Section 8. Eliminate all ignition sources and ventilate the area with explosion-proof equipment. Prevent entry into basements or confined areas.

Environmental Precautions: Prevent spill from entering sewers and water courses. Report releases as required by local and national authorities.

Methods and materials for containment and cleaning up: Stop spill at the source if it is safe to do so. Absorb with an inert material. Use non-sparking tools and equipment. Collect into a suitable container for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling: Avoid eye contact. Avoid unintentional contact with skin. Avoid breathing vapors. Use only with adequate ventilation. Remove contaminated clothing and launder before re-use. Keep product away from heat, sparks and all other sources of ignition. Electrically bond and ground transfer equipment, Use appropriately rated electrical equipment in areas where this material is handled and stored. Keep containers closed when not in use.

Conditions for safe storage, including any incompatibilities: Storage temperature: room temperature. Protect containers from physical damage. Store in a cool area. Keep away from excessive heat and open flames. Keep containers closed when not in use. Store away from oxidizers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure guidelines:

Isopropanol	400 ppm TWA OSHA PEL 200 ppm TWA, 400 ppm STEL ACGIH TLV
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Appropriate engineering controls: Use with adequate general or local exhaust ventilation to minimize exposures levels. Use explosion-proof equipment where required.

Individual protection measures:

Respiratory protection: None needed under normal use conditions. If exposure levels are exceeded or irritation is experienced, a NIOSH approved organic vapor or supplied air respirator is recommended. Selection of respiratory protection depends on the contaminant type, form and concentration. Select in accordance with OSHA 1910.134 and good Industrial Hygiene practice.

Skin protection: None required for normal use. Impervious gloves recommended for manufacturing operations.

Eye protection: Chemical safety goggles recommended if eye contact is possible.

Other: None known.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.): Clear, colorless liquid

Odor: Alcohol odor

Odor threshold: 200 ppm (isopropanol)	pH: Not available
Melting point/freezing point: Not available	Boiling Point: 179.6 °F (82 °C)
Flash point: 53.1 °F (11.7 °C) (Closed Cup)	Evaporation rate: 1.7 (n-Butyl Acetate = 1)
Flammability (solid, gas): Not applicable	VOC: 99%
Flammable limits: LEL: 2% (isopropanol)	UEL: 12.7% (isopropanol)
Vapor pressure: 45.4 mmHg @ 25°C (isopropanol)	Vapor density: 2.1 (isopropanol)
Relative density: 0.783 - 0.787	Solubility(ies): Soluble in water
Partition coefficient: n-octanol/water: 0.05	Auto-ignition temperature: 852.08 °F (455.6 °C)
Decomposition temperature: Not available	Viscosity: Water thin

10. STABILITY AND REACTIVITY

Reactivity: Not reactive under normal conditions of use.

Chemical stability: Stable.

Possibility of hazardous reactions: Reaction with strong oxidizers will generate heat and cause fire.

Conditions to avoid: Avoid heat, sparks, flames, and all other sources of ignition.

Incompatible materials: Avoid oxidizing agents, acids and bases.

Hazardous decomposition products: Thermal decomposition may yield carbon oxides.

11. TOXICOLOGICAL INFORMATION

Acute effects of exposure:

Inhalation: Inhalation of vapors may cause irritation of the mucous membranes and upper respiratory tract and central nervous system effects such as dizziness, drowsiness and headache.

Ingestion: Swallowing may cause gastrointestinal irritation and nervous system effects such as drowsiness and dizziness.

Skin contact: May cause skin irritation and dryness.

Eye contact: Contact may cause irritation with redness, pain and tearing.

Chronic Effects: None known.

Sensitization: Isopropyl alcohol is not a sensitizer.

Germ Cell Mutagenicity: No adverse effects are expected. Isopropyl alcohol is not a germ cell mutagen.

Reproductive Toxicity: No adverse effects are expected. Isopropyl alcohol is not a reproductive toxin.

Carcinogenicity: Isopropyl alcohol is not listed as a carcinogen by IARC, NTP or OSHA.

Acute Toxicity Values: Isopropanol: LD50 oral rat 5045 mg/kg; LD50 dermal rabbit 12,800 mg/kg.

12. ECOLOGICAL INFORMATION

Ecotoxicity values:

Isopropanol: LC50 fathead minnows (*Pimephales promelas*), 230 mg/L/96 hr

EC50 water flea (*Daphnia magna*), immobilization: 7,550-13,299 mg/L/48 hr

EC50 alga *Scenedesmus* sp., Growth rate inhibition: >1,000 mg / 72 hr

Persistence and degradability: Isopropanol is readily biodegradable.

Bioaccumulative potential: Isopropanol does not bioaccumulate

Mobility in soil: No data is available.

Other adverse effects: None known.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all local, state and federal regulations. No specific disposal method is recommended.

14. TRANSPORT INFORMATION

	UN Number	Proper shipping name	Hazard Class	Packing Group	Environmental Hazard
DOT	UN1219	Isopropanol	3	II	No
TDG	UN1219	Isopropanol	3	II	No
IMDG	UN1219	Isopropanol	3	II	No
IATA	UN1219	Isopropanol	3	II	No

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not applicable – product is transported only in packaged form.

Special precautions: None known.

15. REGULATORY INFORMATION

Safety, health, and environmental regulations specific for the product in question.

CERCLA: This product is not subject to CERCLA reporting. Many states have more stringent release reporting requirements. Report spills as required under federal, state and local regulations.

SARA Hazard Category (311/312): Fire Hazard, Acute Health

EPA SARA 313: This product contains the following chemicals regulated under SARA Title III, section 313:
None

EPA TSCA Inventory: Isopropanol is on the TSCA inventory.

CANADA:

Canadian CEPA: Isopropanol is on the Canadian DSL inventory.

Canadian WHMIS Classification: Class B2, Class D-2-B

This product has been classified under the CPR and this SDS discloses information elements required by the CPR.

16. OTHER INFORMATION

NFPA Rating: Health = 2 Flammability = 3 Instability = 0
HMIS Rating: Health = 2 Flammability = 3 Physical Hazard = 0

SDS Revision History: Convert to OSHA Hazcom 2012 format and content

Date of preparation: February 27, 2015

Date of last revision: September 17, 2013

Disclaimer: This SDS has been prepared for occupational exposure. Consumers: Refer to the package insert or product label for appropriate consumer-specific information about this product when used according to manufacturer's directions. Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy of the information contained therein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequence of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).