HI-VALLEY CHEMICAL
LABORATORY PRODUCTS
1134 W. 850 N. CENTERVILLE, UT 84014
(801) 295-9591 Fax (801) 295-9448
www.hvchemical.com

Isopropyl Alcohol 99%

1 PRODUCT AND COMPANY IDENTIFICATION

Product Identifier:	Isopropyl Alcohol 99%
Synonyms:	2-Propanol
SDS Number:	R-012
Product Code:	514590-pt; 514590-qt; 514590-1; 514590-5; 514590-30; 514590-55
Revision Date:	9/14/2015
Version:	1.0
Product Use:	Industrial, manufacturing or laboratory use
Supplier Details:	High Valley Products, Inc. 1134 West 850 North Centerville, Utah 84014
Emergency:	PERS: 800-633-8253
Phone:	801-295-9591
Email:	sales@hvchemical.com
Web:	www.hvchemical.com

2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS):

Physical, Flammable Liquids, 2
Health, Serious Eye Damage/Eye Irritation, 2 A
Health, Specific target organ toxicity - Single exposure, 3

GHS Label elements, including precautionary statements

GHS Signal Word: DANGER

GHS Hazard Pictograms:

GHS Hazard Statements:

H225 - Highly flammable liquid and vapor
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness

GHS Precautionary Statements:

P210 - Keep away from heat/sparks/open flames/hot surfaces. No smoking
P233 - Keep container tightly closed.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical/ventilating/light/equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 - Wash _ thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P303+361+353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
P337+313 - Get medical advice/attention.
P370+378 - In case of fire: Use _ for extinction.
P403+233 - Store in a well ventilated place. Keep container tightly closed.
P403+235 - Store in a well ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container to _

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Cas#	%	Chemical Name
67-63-0	100%	Isopropyl alcohol

4 FIRST AID MEASURES

Inhalation: If inhaled, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.

Skin Contact: Promptly flush skin with water until all chemical is removed.
Wash with soap and water.
Get medical attention if needed.

Eye Contact: Flush with large amounts of water. Get immediate medical attention.

Ingestion: If swallowed , wash the mouth with plenty of water. If person is unconscious DO NOT give anything by mouth. DO NOT induce vomiting. Get medical attention.

5 FIRE FIGHTING MEASURES

Flash Point: 12.0ºC (53.6ºF)

Flash Point Method: Closed cup

Extinguishing Media:
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Use water spray to cool unopened containers.

Protective equipment and precautions for firefighters:
Wear self-contained breathing apparatus and other protective clothing.

Specifc hazards arising from the chemical:
Emits toxic fumes (carbon oxides) under fire conditions.

6 ACCIDENTAL RELEASE MEASURES

Environmental precautions: Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.

Containment and clean up: Absorb spill with noncombustible absorbant material, then place in suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and clean up material in accordance with regulations.

7 HANDLING AND STORAGE

Handling Precautions: Use adequate ventilation. Wash thoroughly after handling. Avoid formation of aerosols.

Storage Requirements: Store in cool/dry well ventilated area. Keep away from incompatible materials.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal Protective Equipment: Isopropyl alcohol (67-63-0) [100%]

Personal protective equipment

Eye/face protection: Face shield and safety glasses Use equipment for eye protection tested and

approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact: Material: Nitrile rubber Minimum layer thickness: 0.4 mm Break through time: 480 min Material tested:Camatril (KCL 730 / Aldrich Z677442, Size M)

Splash contact: Material: Nitrile rubber Minimum layer thickness: 0.2 mm Break through time: 60 min Material tested:Dermatril P (KCL 743 / Aldrich Z677388, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection: impervious clothing, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi- purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Isopropyl alcohol (67-63-0) [100%]

Components with workplace control parameters

TWA	200 ppm	USA. ACGIH Threshold Limit Values (TLV)

Eye & Upper Respiratory Tract irritation
Central Nervous System impairment
Not classifiable as a human carcinogen

STEL	400 ppm	USA. ACGIH Threshold Limit Values (TLV)

Eye & Upper Respiratory Tract irritation
Central Nervous System impairment
Not classifiable as a human carcinogen

TWA	400 ppm 980 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
STEL	500 ppm 1,225 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
TWA	400 ppm 980 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants

The value in mg/m3 is approximate.

TWA	400 ppm 980 mg/m3	USA. NIOSH Recommended Exposure Limits
ST	500 ppm 1,225 mg/m3	USA. NIOSH Recommended Exposure Limits

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear		
Physical State:	Liquid	**Odor:**	Alcohol-like
Odor Threshold:	No data available	**Solubility:**	Complete.
Spec Grav./Density:	0.785	**Freezing/Melting Pt.:**	-89.5°C (-129.1°F)
Viscosity:	No data available	**Flash Point:**	18.3ºC (64.9ºF)
Boiling Point:	82.5°C (180.5°F)	**Octanol:**	0.05
Flammability:	Flammable	**Vapor Density:**	No data available
Partition Coefficient:	No data available	**Auto-Ignition Temp:**	425.0°C (797.0°F)
Vapor Pressure:	No data available	**UFL/LFL:**	12.7% (V) / 2% (V)
pH:	Neutral		
Evap. Rate:	3.0		
Decomp Temp:	No data available		

10 STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal conditions.
Conditions to Avoid:	Heat, flames and sparks. Extremes of temperature and direct sunlight.
Materials to Avoid:	Aluminum, acids, oxidizing agents, halogenated compounds, acid anhydrides.
Hazardous Decomposition:	Carbon oxides.
Hazardous Polymerization:	Will not occur.

11 TOXICOLOGICAL INFORMATION

Isopropyl alcohol (67-63-0) [100%]

Information on toxicological effects

Acute toxicity:
LD50 Oral - rat - 5,045 mg/kg Remarks: Behavioral:Altered sleep time (including change in righting reflex). Behavioral:Somnolence (general depressed activity).
LC50 Inhalation - rat - 8 h - 16000 ppm
LD50 Dermal - rabbit - 12,800 mg/kg
no data available

Skin corrosion/irritation: Skin - rabbit Result: Mild skin irritation

Serious eye damage/eye irritation: Eyes - rabbit Result: Eye irritation - 24 h

Respiratory or skin sensitisation: no data available

Germ cell mutagenicity: no data available

Carcinogenicity:
This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (2-Propanol)
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available

Specific target organ toxicity - single exposure: May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure: no data available

Aspiration hazard: no data available

Additional Information:

RTECS: NT8050000

Central nervous system depression, prolonged or repeated exposure can cause:, Nausea, Headache, Vomiting, narcosis, Drowsiness, Overexposure may cause mild, reversible liver effects.
Kidney - Irregularities - Based on Human Evidence

12 ECOLOGICAL INFORMATION

Isopropyl alcohol (67-63-0) [100%]

Information on ecological effects

Toxicity:
Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 9,640.00 mg/l - 96 h.
Toxicity to daphnia and EC50 - Daphnia magna (Water flea) - 5,102.00 mg/l - 24 h.
other aquatic invertebrates
Immobilization EC50 - Daphnia magna (Water flea) - 6,851 mg/l - 24 h
Toxicity to algae EC50 - Desmodesmus subspicatus (green algae) - > 2,000.00 mg/l - 72 h.
EC50 - Algae - > 1,000.00 mg/l - 24 h

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects: no data available

13 DISPOSAL CONSIDERATIONS

Isopropyl alcohol (67-63-0) [100%]

Waste treatment methods

Product: Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging: Dispose of as unused product.

14 TRANSPORT INFORMATION

UN1219, Isopropanol or Isopropyl alcohol, 3, PGII

15 REGULATORY INFORMATION

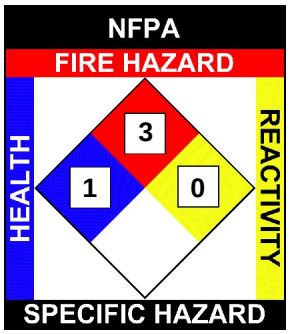
Component (CAS#) [%] - CODES

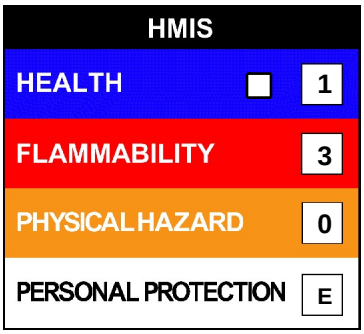
Isopropyl alcohol (67-63-0) [100%] MASS, NJHS, NRC, OSHAWAC, PA, SARA313, TSCA, TXAIR

```
Regulatory CODE Descriptions
-----------------------------------------------------------------
MASS = MA Massachusetts Hazardous Substances List
NJHS = NJ Right-to-Know Hazardous Substances
NRC = Nationally Recognized Carcinogens
OSHAWAC = OSHA Workplace Air Contaminants
PA = PA Right-To-Know List of Hazardous Substances
SARA313 = SARA 313 Title III Toxic Chemicals
TSCA = Toxic Substances Control Act
TXAIR = TX Air Contaminants with Health Effects Screening Level
```

16 OTHER INFORMATION

NFPA: Health = 1, Fire = 3, Reactivity = 0, Specific Hazard = n/a
HMIS III: Health = 1, Fire = 3, Physical Hazard = 0
HMIS PPE: E - Safety Glasses, Gloves, Dust Respirator





Disclaimer:
Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).

Author: HVC
Publication Date:9/14/15
Revision No. 1.0