

SAFETY DATA SHEET

Revision Date 14-Oct-2015 Version 4

1. IDENTIFICATION

Product Name Isopropyl Alcohol, 91%

Product Code7726CAS No.67-63-0Chemical FormulaCH₃CHOHCH₃

Recommended Use For laboratory, scientific, R&D or manufacturing use.

Company E K Industries, Inc.

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Emergency Telephone Call CHEMTREC 1-800-424-9300 (EKI CCN 7453)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious eye damage/eye irritation	Category 2
Specific target organ toxicity (single exposure)	Category 3
Flammable liquids	Category 2

Label elements

Signal word

Danger

Hazard statements

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



Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling. 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. 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. Keep cool.

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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 ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

In case of fire: Use CO2, dry chemical, or foam for extinction.

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%
Isopropyl alcohol	67-63-0	85-95
Water	7732-18-5	5-15

4. FIRST AID MEASURES

Description of first aid measures

Eye contact Immediately flush with plenty of water for at least 15 minutes, separating eyelids

occasionally. Remove contact lenses if present. Get immediate medical attention.

Skin contactWash thoroughly with soap and water while removing contaminated garments. Get medical

attention if irritation develops.

Inhalation Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give

oxygen. Get immediate medical attention.

Ingestion Do NOT induce vomiting unless instructed to do so by medical personnel. If conscious,

rinse mouth and give several glasses of water to drink. Never give anything by mouth to an

unconscious person. Get immediate medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms If inhaled, may cause breathing difficulties. May cause CNS depression, dizziness, nausea,

vomiting.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Water spray (fog), CO2, dry chemical, dry sand, alcohol-resistant foam

Specific hazards arising from the chemical

Vapors may spread long distances and ignite.

Hazardous combustion products

Carbon oxides.

Protective equipment and precautions for firefighters

Firefighters should wear self-contained breathing apparatus with full facepiece operated in pressure-demand or other positive pressure mode.

NFPA Health hazards 1 Flammability 3 Instability 0 Physical and Chemical Properties -

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6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation, especially in confined areas. Avoid contact with skin, eyes or

clothing. Remove all sources of ignition. Take precautionary measures against static

discharges.

Environmental precautions Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Absorb spill with inert material, scoop up and containerize for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Use personal protective equipment as required

Handle in accordance with good industrial hygiene and safety practice.

Storage Conditions Store in an approved Flammable Liquids storage area. Store at 15C to 25C.

Incompatible materials Strong oxidizing agents. Strong acids. Aluminum.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Isopropyl alcohol	STEL: 400 ppm	TWA: 400 ppm	IDLH: 2000 ppm
67-63-0	TWA: 200 ppm	TWA: 980 mg/m ³	TWA: 400 ppm
		(vacated) TWA: 400 ppm	TWA: 980 mg/m ³
		(vacated) TWA: 980 mg/m ³	STEL: 500 ppm
		(vacated) STEL: 500 ppm	STEL: 1225 mg/m ³
		(vacated) STEL: 1225 mg/m ³	

Appropriate engineering controls

Engineering Controls Emergency showers, eyewash stations, ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles.

Skin and body protection Wear protective gloves and protective clothing. Wear fire/flame resistant/retardant clothing.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved

respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be

provided in accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Liquid

Appearance Clear, colorless

Odor Odor of rubbing alcohol
Odor threshold No information available

pH No information available All data for Isopropyl Alcohol, 99%

Melting point / freezing point -89 C
Boiling point / boiling range 82 C
Flash point 12 C

Evaporation rate 2.83 (BuAc=1)

Flammability (solid, gas) No information available

Flammability Limit in Air

Upper flammability limit: 12.7% Lower flammability limit: 2.0%

Vapor pressureNo information availableVapor densityNo information available

Relative density .79

Water solubilityMiscible with waterSolubility in other solventsNo information availablePartition coefficientNo information available

Autoignition temperature 399 C

Decomposition temperatureNo information availableKinematic viscosityNo information available

10. STABILITY AND REACTIVITY

Stability Stable under recommended storage conditions.

Possibility of Hazardous Reactions None under normal processing.

Conditions to avoid Sources of ignition. Extremes of temperature and direct sunlight.

Incompatible materials Strong oxidizing agents. Strong acids. Aluminum.

Hazardous Decomposition Products Carbon monoxide. Carbon dioxide (CO2).

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation No data available.

Eye contact Irritating to eyes.

Skin contact Irritating to skin.

Ingestion No data available.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Isopropyl alcohol 67-63-0	= 1870 mg/kg (Rat)	= 4059 mg/kg (Rabbit)	= 72600 mg/m³ (Rat) 4 h
Water 7732-18-5	> 90 mL/kg (Rat)	-	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Irritating to skin.
Serious eye damage/eye irritation Irritating to eyes.

Sensitization Germ cell mutagenicityNo information available.
No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen

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Chemical Name	ACGIH	IARC	NTP	OSHA
Isopropyl alcohol 67-63-0	-	Group 3	-	Х

Legend

IARC (International Agency for Research on Cancer) Group 3 - Not classifiable as to carcinogenicity in humans

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

STOT - single exposure

Respiratory system, Central nervous system,

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12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Isopropyl alcohol	1000: 96 h Desmodesmus	11130: 96 h Pimephales promelas	13299: 48 h Daphnia magna mg/L
67-63-0	subspicatus mg/L EC50 1000: 72 h	mg/L LC50 static 9640: 96 h	EC50
	Desmodesmus subspicatus mg/L	Pimephales promelas mg/L LC50	
	EC50	flow-through 1400000: 96 h	
		Lepomis macrochirus µg/L LC50	

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Chemical Name	Partition coefficient
Isopropyl alcohol	0.05
67-63-0	

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and

regulations.

Contaminated packaging Do not reuse container. Emptied containers may contain residue. Continue to follow label

warnings after container is emptied.

Chemical Name	California Hazardous Waste Status
Isopropyl alcohol 67-63-0	Toxic Ignitable
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14. TRANSPORT INFORMATION

Transportation information is provided as a general reference only and may not be applicable in all situations. This information applies to non-bulk shipments only. Per 49 CFR §173.22, it is the shipper's responsibility to ensure that all materials are properly packaged, classified and labeled prior to shipment.

DOT

UN/ID no. 1219
Proper shipping name Isopropanol

Hazard Class 3
Packing Group ||

IATA

UN/ID no. 1219

Proper shipping name Isopropanol

Hazard Class 3
Packing Group ||

15. REGULATORY INFORMATION

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %	
Isopropyl alcohol - 67-63-0	1.0	
SARA 311/312 Hazard Categories	<u> </u>	
Acute health hazard	Yes	
Chronic Health Hazard	Yes	
Fire hazard	Yes	
Sudden release of pressure hazard	No	
Reactive Hazard	No	

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Isopropyl alcohol 67-63-0	Х	Х	Х
Water 7732-18-5	-	-	Х

16. OTHER INFORMATION

Prepared By EKI Regulatory Affairs (Email: reg@eki-chem.com)

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Disclaimer

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End of Safety Data Sheet