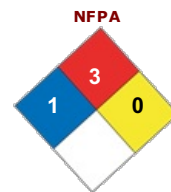




SAFETY DATA SHEET

SECTION 1 : IDENTIFICATION

Product Name: 89108-162
Product Code: 3212
SDS Manufacturer Number: 3212FLIQ
Product Description: VWR STERILE 70% Isopropanol 3.8L
Manufacturer Name: VWR International, LLC
Address: Radnor Corporate Center, Building One, Suite 200
100 Matsonford Road
Radnor, PA 19087
USA
General Phone Number: 1-888-897-5463
Emergency Phone Number: Chemtrec® US: 1-800-424-9300 International: 1-703-527-3887
Website: <http://us.vwr.com>
SDS Creation Date: April 30, 2013
SDS Revision Date: June 30, 2014



HMIS	
Health Hazard	1
Fire Hazard	3
Reactivity	0
Personal Protection	X

SECTION 2 : HAZARD(S) IDENTIFICATION

GHS Pictograms:



Signal Word: WARNING!

GHS Class: Flammable Liquid, Category 3.
Eye Irritant, Category 2.
Specific Target Organ Toxicity, Single Exposure, Category 3.

Hazard Statements: Flammable liquid and vapour.
Causes serious eye irritation.
May cause drowsiness or dizziness.

Precautionary Statements: Keep away from heat/sparks/open flames — No smoking.
Take precautionary measures against static discharge.
In case of fire: Use dry chemical, carbon dioxide to extinguish small fires. Use water for large fires.
Wear protective gloves, protective clothing, and eye protection.
Avoid breathing vapors.
Store in a well-ventilated place. Keep container tightly closed.
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 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.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
Dispose of contents/container in accordance with Local, State, Federal and Provincial regulations.

Emergency Overview: WARNING! Flammable. Irritant. May cause drowsiness or dizziness. Pulmonary aspiration hazard if swallowed.

Route of Exposure: Eyes. Skin. Inhalation. Ingestion.

Potential Health Effects:

Eye: Eye contact with product or vapors may result in irritation, redness, and blurred vision. May cause pain disproportionate to the level of irritation to eye tissues. Vapor may cause eye irritation experienced as mild discomfort and redness. May cause moderate corneal injury.

Skin: May cause irritation. Repeated exposure may cause a burning sensation and dryness or cracking. Prolonged skin contact is unlikely to result in absorption of harmful amounts.

Inhalation: Inhalation of vapors, fumes or mists of the product may be irritating to the respiratory system. Excessive exposure (400 ppm) may cause eye, nose and throat irritation. Higher levels may cause incoordination, confusion, hypotension, hypothermia, circulatory collapse, respiratory arrest, and death may follow a longer duration and higher levels. In confined or poorly ventilated areas, vapors can readily accumulate and can cause unconsciousness and death.

Ingestion: May cause irritation. Ingesting large amounts may cause injury. May cause central nervous system depression, nausea and vomiting. Aspiration of material into the lungs can cause chemical pneumonitis which can be fatal.

Chronic Health Effects: Prolonged or repeated contact may cause skin irritation.
Repeated or prolonged inhalation may cause toxic effects.

Signs/Symptoms: Overexposure may cause headaches and dizziness. Signs and symptoms of excessive exposure include facial flushing, low blood pressure, irregular heartbeats.

Target Organs: Eyes. Skin. Respiratory system. Digestive system.
Aggravation of Pre-Existing Conditions: None generally recognized.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Ingredient Percent	EC Num.
Isopropyl alcohol	67-63-0	70 by Volume	200-661-7
Deionized water	7732-18-5	30 by Volume	

SECTION 4 : FIRST AID MEASURES

Eye Contact: 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.

Skin Contact: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.

Inhalation: 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.

Ingestion: If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

SECTION 5 : FIRE FIGHTING MEASURES

Flash Point: 23 °C (73 °F)

Auto Ignition Temperature: 399 °C (750 °F)

Lower Flammable/Explosive Limit: 2.0 % by volume

Upper Flammable/Explosive Limit: 12.0 % by volume

Extinguishing Media: Use alcohol resistant foam, carbon dioxide, dry chemical, or water fog or spray when fighting fires involving this material.

Unsuitable Media: Do not use a solid water stream as it may scatter and spread fire.

Protective Equipment: In the event of a fire, wear Self-Contained Breathing Apparatus (SCBA), approved or in accordance to NFPA, NIOSH, and/or European Standard EN 137 guidelines or equivalent and full protective gear.

Unusual Fire Hazards: Material burns with an invisible flame.

Hazardous Combustion Byproducts: Oxides of carbon, oxides of nitrogen and other organic substances may be formed.

Universal Fire And Explosion Hazards: Vapors are heavier than air and may travel along the ground or may be moved by ventilation to locations distant from the point of material handling or release.

NFPA Ratings:

NFPA Health: 1

NFPA Flammability: 3

NFPA Reactivity: 0

SECTION 6 : ACCIDENTAL RELEASE MEASURES

Personnel Precautions: Evacuate area and keep unnecessary and unprotected personnel from entering the spill area. Avoid breathing vapor, aerosol or mist. Avoid contact with skin, eyes and clothing.

Environmental Precautions: Avoid runoff into storm sewers, ditches, and waterways.

Methods for containment: Contain spills with an inert absorbent material such as soil, sand or oil dry.

Methods for cleanup: Remove all sources of ignition. Absorb or wipe any residual liquids. Place in a suitable container for proper disposal. Use appropriate protective apparel as described in Section 8. Avoid contact with skin and eyes.

SECTION 7 : HANDLING and STORAGE

Handling: Use with adequate ventilation. Avoid breathing vapor and fumes. Use only in accordance with directions. To reduce potential for static discharge, bond and ground containers when transferring material.

Storage: Store in a cool, dry, well ventilated area away from sources of heat, combustible materials, direct sunlight, and incompatible substances. Keep container tightly closed when not in use. Keep away from aldehydes, halogenated organics, halogens, strong acids, strong oxidizers.

Hygiene Practices: Wash thoroughly after handling. Avoid inhaling vapors, mists, or fumes.

SECTION 8 : EXPOSURE CONTROLS, PERSONAL PROTECTION - EXPOSURE GUIDELINES

Engineering Controls:	Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.
Eye/Face Protection:	Tightly fitting safety goggles. Wear a face shield also when splash hazard exist.
Hand Protection Description:	Wear appropriate protective gloves. Consult glove manufacturer's data for permeability data. Preferred glove materials include: polyethylene, neoprene, chlorinated polyethylene, natural rubber (latex), polyvinyl chloride (PVC or vinyl), nitrile/butadiene rubber (nitrile or NBR), ethyl vinyl alcohol laminate (EVAL). Avoid gloves made of polyvinyl alcohol (PVA).
Respiratory Protection:	Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. Comply with the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149 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.
Other Protective:	Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

EXPOSURE GUIDELINES

Isopropyl alcohol:

Guideline ACGIH:	TLV-TWA: 200 ppm TLV-STEL: 400 ppm
Guideline OSHA:	PEL-TWA: 400 ppm
GERMAN MAK:	MAK-TWA: 200 ppm MAK-STEL: 400 ppm

SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

Physical State Appearance:	liquid.
Odor:	Alcohol-like
Odor Threshold:	Not determined.
Boiling Point:	82 - 89°C (180 - 192 °F)
Melting Point:	Not determined.
Specific Gravity:	0.872 @ 20°C (68°F)
Solubility:	Soluble in water.
Vapor Density:	Not determined.
Vapor Pressure:	43.0 hPa (32 mm Hg) @ 20°C (68°F)
Percent Volatile:	100%
Evaporation Rate:	Not determined.
pH:	Not determined.
Viscosity:	Not determined.
Coefficient of Water/Oil Distribution:	Not determined.
Flash Point:	23 °C (73 °F)
Auto Ignition Temperature:	399 °C (750 °F)

SECTION 10 : STABILITY and REACTIVITY

Chemical Stability:	Stable under normal temperatures and pressures.
Hazardous Polymerization:	Not reported.
Conditions to Avoid:	Keep away from heat, ignition sources and incompatible materials.
Incompatible Materials:	Aldehydes, halogenated organics, halogens, strong acids, strong oxidizers.

SECTION 11 : TOXICOLOGICAL INFORMATION

Isopropyl alcohol:

Eye:	Eye - Rabbit Standard Draize test.: 100 mg Eye - Rabbit Standard Draize test.: 10 mg Eye - Rabbit Standard Draize test.: 100 mg/24H (RTECS)
Skin:	Administration onto the skin - Rabbit Standard Draize test.: 500 mg Administration onto the skin - Rabbit LD50: 12800 mg/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)
Inhalation:	Inhalation - Rat LC50: 16000 ppm/8H [Details of toxic effects not reported other than lethal dose value] Inhalation - Mouse LC50: 53000 mg/m3 [Behavioral - General anesthetic Lungs, Thorax, or

Respiration - Other changes]
Inhalation - Rat LC50: 72600 mg/m3 [Behavioral - General anesthetic Lungs, Thorax, or Respiration - Other changes] (RTECS)

Ingestion: Oral - Rat LD50: 5045 mg/kg [Behavioral - Altered sleep time (including change in righting reflex)
Behavioral - Somnolence (general depressed activity)]
Oral - Mouse LD50: 3600 mg/kg [Behavioral - Altered sleep time (including change in righting reflex)
Behavioral - Somnolence (general depressed activity)]
Oral - Mouse LD50: 3600 mg/kg [Behavioral - General anesthetic]
Oral - Rat LD50: 5000 mg/kg [Behavioral - General anesthetic] (RTECS)

SECTION 12 : ECOLOGICAL INFORMATION

Ecotoxicity: No ecotoxicity data was found for the product.
Environmental Fate: No environmental information found for this product.

Isopropyl alcohol:

Ecotoxicity: LC50; Species.: 1400000 ug/L for 48 hr Crangon crangon (Common Shrimp).
LC50; 10000000 ug/L for 24 hr Species.: Daphnia magna (Water Flea).
LD50; >5000 mg/L for 24 hr Species.: Carassius auratus (goldfish).
LC50; 11,130 mg/L for 48 hr Species.: Pimephales promelas (fathead minnows).
Environmental Fate: Isopropanol is expected to have very high mobility in soil.
Bioaccumulation: Bioconcentration in aquatic organisms is low.

SECTION 13 : DISPOSAL CONSIDERATIONS

Waste Disposal: Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 or the EU Directive 2008/98/EC on waste for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state, local, or provincial waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines.
Contaminated Packaging: Do not reuse containers without proper cleaning or reconditioning.

SECTION 14 : TRANSPORT INFORMATION

DOT Shipping Name: Flammable Liquids, n.o.s. (Isopropanol).
DOT Hazard Class: 3
DOT Packing Group: III
IATA Shipping Name: Flammable Liquids, n.o.s. (Isopropanol).
IATA Hazard Class: 3
IATA Packing Group: III
IMDG UN Number : UN1993
IMDG Shipping Name : Flammable Liquids, n.o.s. (Isopropanol).
IMDG Hazard Class : 3
IMDG Packing Group : III
Marine Pollutant: No.

SECTION 15 : REGULATORY INFORMATION

Canada WHMIS: Controlled - Class: B2 Flammable Liquid.
Controlled - Class: D2B Toxic

Isopropyl alcohol:

TSCA Inventory Status: Listed
Canada DSL: Listed
EC Number: 200-661-7
WHMIS Pictograms:



SECTION 16 : ADDITIONAL INFORMATION

HMIS Health Hazard: 1
HMIS Fire Hazard: 3
HMIS Reactivity: 0
HMIS Personal Protection: X
SDS Creation Date: April 30, 2013

SDS Revision Date:

June 30, 2014

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