


# SAFETY DATA SHEET (SDS)

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name:	70% Isopropyl Alcohol (IPA)
Commercial Name / Description:	QT 70 IPA: 70% IPA & 30% WFI Quality Water
Product Code:	QT15XX
Product Configuration:	Bag In Bottle Dispenser, Non Bag in Bottle Trigger Spray And Screw Cap Bottles.
Manufacturer Name:	QUANTUMTEC (A Life Science Solutions Division of PMA Manufacturing Sdn. Bhd.)
Product Use:	Industrial, Manufacturing and/or Laboratory Use
Address:	11, Lintang Beringin 3, Diamond Valley, 11960 Bayan Lepas, Penang, Malaysia.
General Phone No.:	+604-626 5518
Emergency Contact No.:	+604-626 5518
Email Address:	<a href="mailto:davin@pma-asia.com">davin@pma-asia.com</a> ; <a href="mailto:aidakhaw@pma-asia.com">aidakhaw@pma-asia.com</a>

## SECTION 2: HAZARD(S) IDENTIFICATION

OSHA Hazards:	Flammable Liquid, Target Organ Effect, Eye Irritant
GHS Pictograms:	
Signal Word:	DANGER!
GHS Classifications:	Flammable Liquid – Category 2
	Skin Irritation – Category 3
	Eye Irritation – Category 2
	Specific Target Organ toxicity – Single Exposure – Category 3
GHS Label Elements, Including Precautionary Elements (The code refers to GHS Standard)	
Hazard Statement:	H225 – Highly flammable liquid and vapour
	H316 – Causes mild skin irritation
	H319 – Causes serious eye irritation
	H336 – May cause drowsiness or dizziness

Precautionary Statements:	P210 - Keep away from heat/hot surfaces, sparks/ open flames and other ignition sources. No smoking.
	P243 – Take precautionary measures against static discharge.
	P370 - In case of fire, use dry chemical, carbon dioxide to extinguish small fires. Use water for large fires.
	P280 - Wear protective gloves, protective clothing, eye protection and face protection.
	P261 - Avoid breathing vapours / spray.
	P403+233 - Store in a well-ventilated place. Keep container tightly closed.
	P305+351+338 - 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.
	P304+312+340 - IF INHALED: Move victim to an open area with fresh air and keep at rest in a position comfortable for breathing. Call a doctor if you feel unwell.
	P303+361+353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
	P501 - Dispose of contents / container in accordance with Local, State, Federal and Provincial regulations
Emergency Overview:	DANGER! Flammable. Eye irritant. May cause drowsiness or dizziness.
Route of Exposure:	Eyes, Skin and Inhalation.
Potential Health Effects:	Eye: Eye contact with product or vapours may result in irritation, redness, and blurred vision. May cause pain disproportionate to the level of irritation to eye tissues. Vapour 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 vapours, 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, vapours 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, and 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 Number	w/v (Weight by Volume)	Formula
Isopropyl Alcohol	67-63-0	70%	CH <sub>3</sub> CHOHCH <sub>3</sub>
Water for Injection (WFI)	7732-18-5	30%	H <sub>2</sub> O

**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 all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs, get medical advice/attention.
Inhalation:	IF INHALED: Move victim to an open area with fresh air and keep at rest in a position comfortable for breathing. Call a doctor/physician if you feel unwell.
Ingestion:	IF SWALLOWED: Do NOT induce vomiting. Call a doctor immediately. Never give anything by mouth to an unconscious person.

**SECTION 5: FIRE FIGHTING MEASURES**

Flash Point:	20.5 °C (69 °F) (IPA)
Auto Ignition Temperature:	399 °C (750 °F) (IPA)
Lower Flammable / Explosive Limit:	2.0 % by volume (IPA)
Upper Flammable / Explosive Limit:	12.0 % by volume (IPA)
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 By-products:	Oxides of carbon, oxides of nitrogen and other organic substances may be formed.
Universal Fire and Explosion Hazards:	Vapours 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

Personal Protection:	Evacuate area and keep unnecessary and unprotected personnel from entering the spill area. Avoid breathing vapour, aerosol or mist. Avoid contact with skin, eyes and clothing.
Environmental Precautions:	Avoid runoff into storm sewers, ditches, and waterways. Comply with all government regulations on reporting releases.
Methods for Containment:	Spills are very unlikely, due to readily evaporating condition of alcohol-based product. In the event of a spill, contain with an inert absorbent.
Methods for Cleanup:	Remove all sources of ignition. Collect the wipes with a non-sparking tool and 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 vapour and fumes. Use only in accordance with directions.
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, and strong oxidizers.
Special Handling Procedures:	WARNING! Used wipes may catch fire if improperly discarded or stored near ignition sources.
Hygiene Practices:	Wash thoroughly after handling. Avoid inhaling vapours, mists, or fumes.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

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:	Safety glasses with side shields must be worn at all times. If splash hazard exists, wear chemical splash goggles and/or face shield.
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 49. 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

#### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State Appearance:	Clear, colorless 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 (Water = 1)
Solubility:	Soluble in water.
Vapour Density:	Not determined.
Vapour 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:	20.5 °C (69 °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**

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/m <sup>3</sup> [Behavioral - General anesthetic Lungs, Thorax, or Respiration - Other changes] Inhalation - Rat LC50: 72600 mg/m <sup>3</sup> [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:	LC50; Species: 1400000 ug/L for 48 hr 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.  WARNING! Used wipes may catch fire if improperly discarded or stored near ignition sources.
Contaminated:	Do not reuse containers without proper cleaning or reconditioning.

**SECTION 14: TRANSPORT INFORMATION**

DOT UN Number:	UN1219
DOT Proper Shipping Name:	ISOPROPANOL (ISOPROPYL ALCOHOL)
DOT Hazard Class:	3
DOT Packing Group:	II

IATA UN Number:	UN1219
IATA Proper Shipping Name:	ISOPROPYL ALCOHOL
IATA Hazard Class:	3
IATA Packing Group:	II
IMDG UN Number:	UN1219
IMDG Proper Shipping Name:	ISOPROPANOL (ISOPROPYL ALCOHOL)
IMDG Hazard Class:	3
IMDG Packing Group:	II

#### SECTION 15: REGULATORY INFORMATION

Canada WHMIS:	Controlled - Class: B2 Flammable Liquid. Controlled - Class: D2B Toxic
TSCA Inventory Status:	Listed
Canada DSL:	Listed
EC Number:	200-661-7
Deionized Water EC Number:	231-791-2
WHMIS Pictograms:	 

#### SECTION 16: ADDITIONAL INFORMATION

HMIS Ratings:	HMIS Health Hazard: 1 HMIS Fire Hazard: 3 HMIS Reactivity: 0 HMIS Personal Protection: X
M/SDS Creation Date:	29 Sept 2016
M/SDS Revision Date:	20 Jul 2023

**Disclaimer:**

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