


SAFETY DATA SHEET (SDS)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name:	70% Specially Denatured Alcohol (SDA)
Commercial Name / Description:	QT 70 SDA: 70% SDA & 30% WFI Quality Water
Product Code:	QT25XX
Product Configuration:	Bag In Bottle Dispenser, Non Bag in Bottle Trigger Spray, 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.
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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
	Eye Irritation – Category 2
	Specific Target Organ toxicity (Single Exposure) – Category 2 / 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 – Cause 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 / fumes/ 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: 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.
	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. Irritant. May cause drowsiness or dizziness.
Route of Exposure:	Eyes, Skin and Inhalation.
Potential Health Effects:	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>
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
Ethyl alcohol	64-17-5	65.0-70.0%	C ₂ H ₅ OH
Methyl alcohol	67-56-1	≤ 5.0%	CH ₃ OH
Isopropyl Alcohol	67-63-0	≤ 5.0%	CH ₃ CHOHCH ₃
Water	7732-18-5	30%	H ₂ 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/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 POISON CONTROL 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:	11.0 - 16°C (51.8 – 60.8°F)
Auto Ignition Temperature:	363°C (685.4°F)
Lower Flammable / Explosive Limit:	3.3 % by volume
Upper Flammable / Explosive Limit:	19.0 % by volume
Sensitive against Static Discharge	Yes
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:	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: 3 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 vapor, aerosol or mist. Avoid contact with skin, eyes and clothing. Take precautionary measures against static discharge.
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 vapor 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. Use only non-sparking tools.
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 vapors, 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.

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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State Appearance:	Clear, colorless liquid
Odor:	Alcohol-like
Odor Threshold:	100 – 180 ppm
Boiling Point:	Around 77°C (170.6°)
Melting Point:	Not determined.
Specific Gravity:	No information available
Solubility:	Miscible in water.
Vapor Density:	(Air = 1.0) 1.6
Vapor Pressure:	No information available
Percent Volatile:	No information available
Evaporation Rate:	No information available
pH:	No information available
Viscosity:	No information available
Coefficient of Water/Oil Distribution:	No information available
Flash Point:	11.0 - 16°C (51.8 – 60.8°F)
Auto Ignition Temperature:	363°C (685.4°F)

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal temperatures and pressures.
Hazardous Polymerization:	Hazardous polymerization does not occur.
Conditions to Avoid:	Incompatible products. Heat, flames and sparks. Keep away from open flames, hot surfaces and sources of ignition.

Incompatible Materials:	Strong oxidizing agents, strong inorganic acids
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SECTION 11: TOXICOLOGICAL INFORMATION

Toxicity	Ethanol	LD50 rat (oral) : 7,060 mg/kg LC50 rat (ihl) : 20,000 ppm/kg LDI human (oral) : 1,400 mg/kg
	Methanol	LD50 rat (oral) : 5,628 mg/kg LC50 rat (ihl) : 64,000 mg/kg LD50 rabbit (skin): 15,800 mg/kg
	Isopropyl alcohol	LD50 rat (oral) : 4,396 mg/kg LC50 rat (vapor) : 19,000 ppm LD50 rabbit (skin): 12,870 mg/kg
Swallowing:	Ethanol & Isopropyl alcohol: May cause dizziness, faintness, drowsiness, decreased awareness or responsiveness, nausea, vomiting, staggering gait, lack of coordination and coma Methanol: Methanol ingestion or inhalation can lead to visual disturbance that can proceed to blindness.	
Skin Absorption:	No harmful affect with normal skin. Moderate / Repeated exposure may cause skin dryness or cracking.	
Inhalation:	High vapor concentration may cause burning sensation in nose and throat, stinging and watering in the eyes. Inhalation at high concentrations may cause irritation, dizziness, faintness, drowsiness, nausea and vomiting.	
Eye Contact:	May cause irritation including stinging, tearing and redness	
Carcinogenicity:	Ethanol has been shown to be carcinogenic in long-term studies only when consumed and abused as an alcoholic beverage.	
Specific target organ toxicity (STOT) – single exposure:	No data available	
Specific target organ toxicity (STOT) – repeated exposure:	Ethanol & isopropyl alcohol: Prolonged exposure can cause liver, kidney, heart damage, loss of appetite, weight loss, nervousness, memory loss, mental retardation and irritating to mucous membranes, skin, and respiratory system. Methanol: Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed. Experiments have shown reproductive toxicity effects on laboratory animals. May cause adverse liver effects. May cause adverse kidney effects. Methanol is slowly eliminated from the body, therefore it can have cumulative toxicity effects with repeated exposures.	

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:	Contains a substance which is: Toxic to aquatic organisms. The product contains following substances which are hazardous for the environment.	
	Ethanol	Acute Fish Toxicity: LC50 / 96h <i>Oncorhynchus mykiss</i> (rainbow trout): > 10,000 mg/l LC50 / 96h <i>Pimephales promelas</i> (fathead minnow): > 13,400 mg/l Toxicity to aquatic plants: Growth inhibition / 96h <i>Chlorella vulgaris</i> (Fresh water algae): 1,000 mg/l

	<p>Toxicity to microorganisms Toxicity Threshold / <i>Pseudomonas putida</i>: 6,500 mg/l</p> <p>Summary: Inhibition of cell multiplication begins.</p>
	<p>Methanol Acute Fish Toxicity: LC50 / 96h <i>Lepomis macrochirus</i>: 15,400 mg/L LC50 / 96h <i>Pimephales promelas</i> (fathead minnow): 29,400 mg/L</p> <p>Toxicity to aquatic plants: EC50 / 96h <i>Scenedesmus capricornutum</i>: 22,000 mg/L</p>
	<p>Isopropyl alcohol Acute Fish Toxicity: LC50 / 96h <i>Pimephales promelas</i>: 9,640 mg/L Toxic to <i>Daphnia</i> and Other Aquatic</p> <p>Invertebrates: EC50 / 24h / Water Flea - 5,102 mg/L</p> <p>Toxicity to aquatic plants: EC50 / 72h <i>Scenedesmus subspicatus</i>: > 1,000 mg/L</p>
Environmental Fate:	Will likely be mobile in the environment due to its volatility
Bioaccumulation:	No information available

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal:	<p>Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.</p> <p>WARNING! Used wipes may catch fire if improperly discarded or stored near ignition sources.</p>
Contaminated:	Do not reuse containers without proper cleaning or reconditioning.

SECTION 14: TRANSPORT INFORMATION

DOT UN Number:	UN1170
DOT Proper Shipping Name:	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
DOT Hazard Class:	3
DOT Packing Group:	II
IATA UN Number:	UN1170
IATA Proper Shipping Name:	ETHYL ALCOHOL SOLUTION
IATA Hazard Class:	3
IATA Packing Group:	II
IMDG UN Number:	UN1170
IMDG Proper Shipping Name:	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
IMDG Hazard Class:	3
IMDG Packing Group:	II

SECTION 15: REGULATORY INFORMATION

SARA 311/312 Hazard Categories	<p>Acute Health Hazard : Yes</p> <p>Chronic Health Hazard : Yes</p> <p>Fire Hazard : Yes</p> <p>Sudden Release of Pressure Hazard : No</p> <p>Reactive Hazard : Yes</p>
U.S. Department of Transportation	<p>Reportable Quantity (RQ) : N</p> <p>DOT Marine Pollutant : N</p> <p>DOT Severe Marine Pollutant : N</p>

WHMIS Pictograms:	 
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SECTION 16: ADDITIONAL INFORMATION

HMIS Ratings:	HMIS Health Hazard: 1 HMIS Fire Hazard: 3 NFPA Reactivity: 0 HMIS Personal Protection: X
M/SDS Creation Date:	17 Dec 2019
M/SDS Revision Date:	03 Jul 2023

Disclaimer:

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