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MATERIAL SAFETY DATA SHEET

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Trade Name: QPAC[®] 40 Aqueous Dispersion/Emulsion

Product: Aqueous Dispersion of Poly(propylene carbonate)

Manufacturer:

Empower Materials
91 Lukens Drive, Suite E
New Castle, DE 19720

Emergency Telephone Numbers:

Chemtrec 1-800-424-9300 U.S.
1-703-527-3887 International

SECTION 2 - COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient (s)	CAS Number	%
Poly(propylene carbonate) (C ₄ H ₆ O ₃) _n	25511-85-7	50 – 20 %
Propylene carbonate	108-32-7	0 – 5 %
Water		45 – 65 %
Proprietary Surfactants		5 – 10 %

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Appearance: Milky white liquid

Odor: Slight ester odor

- Avoid contact with eyes, skin or clothing. Do not swallow. Wear safety goggles and latex gloves.
- Wash thoroughly after handling. Keep container closed when not in use. Use with adequate ventilation. May produce hazardous gases under fire conditions.
- During emergencies, wear equipment to protect eyes, skin and respiratory tract. Dike or absorb spills to keep material and run-off from entering sewer or waterways. Use water spray to cool containers and disperse vapors. Consult the Material Safety Data Sheet.

Potential Health Effects

Skin

Contact causes irritation.

Eyes

Causes severe irritation.

Inhalation

Inhalation of product may cause nausea and vomiting

Ingestion

Ingestion of product may cause nausea and vomiting.

Conditions aggravated by exposure

None expected.

SECTION 4 - FIRST AID MEASURES**Eye Contact**

Immediately flush with large quantities of water for 15 minutes while holding back eyelids occasionally. Call a physician.

Skin Contact

In case of skin contact, wash with soap and water.

Ingestion

In case of ingestion have victim drink large quantities of water and induce vomiting if conscious. Call a physician.

Inhalation

Immediately remove victim to fresh air. If breathing becomes difficult, call a physician.

SECTION 5 - FIRE FIGHTING MEASURES**Flammable Properties**

Flash Point: NA

Auto ignition Temperature: N/A

Explosion Limits

Lower: N/A

Upper: N/A

Extinguishing Media

Emulsion (water) does not burn. Poly(propylene carbonate) is a combustible solid. Choose extinguishing media suitable for dried emulsion, such as water spray, dry chemical, alcohol foam or carbon dioxide.

Unsuitable Extinguishing Media

No restrictions on media based on knowledge of this material.

Special Fire Fighting Instructions

None required

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Small Spills

For spills and leaks, wear chemical safety goggles, chemical resistant gloves, and apron or coveralls. Contain spills with absorbent and place in an approved D.O.T. container and seal. Wash all contaminated clothing before reuse. Ventilate area and clean spill site after material clean up is complete.

Large Spills

For larger spills requiring emergency response, respiratory protection may also be required. Follow OSHA regulations and NIOSH recommendation for respirator use (see 29 CFR 1910.134 and NIOSH Pub. 87-108) and emergency response (see 29 CFR 1910.120). Contain spills with absorbent and place in an approved D.O.T. container and seal. Wash all contaminated clothing before reuse. In the event of a very large spill, call the emergency telephone number shown on the front of this sheet. Ventilate area and clean spill site after material clean up is complete.

SECTION 7 - HANDLING / STORAGE

Handling

Avoid contact with eyes, skin or clothing. Avoid breathing mist or vapor. Do not swallow. Wear chemical safety goggles and chemical resistant gloves and/or apron. Wash thoroughly after handling. Keep container closed when not in use. Use only with adequate ventilation.

Storage

Store in a cool and dry area, preferably 2-10°C. Keep tightly closed. Do not freeze.

Incompatibility

- Oxidation
 - Temperature above 150 °C
-

SECTION 8 - EXPOSURE CONTROL AND PERSONAL PROTECTION

Ventilation

Local, mechanical exhaust ventilation recommended.

Personal Protective Equipment

Safety glasses, gloves and/or apron

Respiratory Protection

If excessive dusting should occur, wear NIOSH/MSHA approved dust/mist respirator.

Skin Protection

Chemical resistant gloves and apron.

Eye Protection

Safety glasses during normal use. Eye wash fountain and emergency shower should be provided in work area.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Milky white liquid
Odor:	Slight ester odor
Boiling Point:	100 °C (212 °F) (water)
Melting Point:	0 °C (32 °F) (water)
Specific Gravity:	1.0 to 1.3 (H ₂ O = 1)
Vapor Pressure:	ND mmHg @ 20 °C
Viscosity:	5-25 cps @ 25 °C Brookfield viscometer
Solubility in Water:	Dilutable
pH Value:	4.5 – 6.5 @ 25 °C

SECTION 10 - STABILITY AND REACTIVITY**Stability**

Physical particle suspension is stable at room temperature for 1 month. Particle stability improves when stored at 2-5 °C. Shake well before using.

Hazardous Polymerization

Hazardous polymerization WILL NOT occur if product is used and stored as directed. Product is stable if used and stored as directed.

Hazardous Decomposition Products

Propylene Carbonate when burned may form toxic levels of carbon monoxide, carbon dioxide, irritating aldehydes, acids and ketones.

Materials and Conditions to Avoid

Keep away from excess heat and temperatures above 150°C. Do NOT freeze. Freezing will cause particles to agglomerate.

SECTION 11 - TOXICOLOGICAL INFORMATION

Product Information

LD50 (oral, rat)

No Data Available

Acute Overexposure

No data is available on the health effects of chronic exposure to this product.

Chronic Overexposure

No other effects besides those associated with acute exposure.

Ingredient information

No other information.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity Data

No Data Available

SECTION 13 - DISPOSAL CONSIDERATIONS

Hazardous Waste Characteristic

None

Recommendation

Dispose of contaminated product, empty containers and materials used in cleaning up spills or leaks in a manner approved for this material. Consult appropriate federal, state and local regulatory agencies to ascertain proper disposal procedures. Discharge of processing effluent to the sewer may require a permit. DO NOT discharge effluent solutions to septic systems.

SECTION 14 - TRANSPORTATION INFORMATION

Ground Shipping Information

DOT Proper Shipping Name

None

Non-Hazardous for Transport

This substance is considered to be non-hazardous for transport.

Air (ICAO/IATA) Shipping Information

Proper Shipping Name

None

Non-Hazardous for Air Transport

This substance is considered to be non-hazardous for air transport.

International Maritime Organization (IMO) Additional Shipping Class

IMDG Code

Not Applicable

Amdt. Code

Not Applicable

HTS Code

Not Applicable

SECTION 15 - REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

SARA LISTED: No

TSCA Inventory Item: Yes

SECTION 16 - OTHER INFORMATION

It is believed that the herein contained information is accurate. It is provided for the purpose of hazard communication independent of any sale of the product, as part of our product safety program. There is no claim made regarding an implied warranty, express warranty, and fitness for a particular purpose or merchantability by the information herein contained or regarding the product. We make available data sheets for our products, which we urge you to obtain for the products you buy, process, distribute, or use. You should advise those who may come in contact with our products of the herein contained information.

User should consult his legal advisor or the appropriate government agency to establish applicability or effect of any regulation or law regarding the product. We do not undertake to provide advice on these matters.