Material Safety Data Sheet

Section I Product Information/Prep	paration Information	n		
Identity: Aqua-Kem	Product Use:	Holding tank deodo	orant	
Manufacturer's Name	Emergency Telep			
Thetford Corporation		(734) 769-6000; (800) 424-9300 (CHEMTREC-24 hrs)		
Address 7101 Jackson Road	Telephone Numb	er for Information (7	734) 769-6000	
Ann Arbor, Michigan 48103	Date Prepared	11-Jun-12	Prepared By J	anis M. Thomson
Section II - Hazardous Ingredients/	Identity Information	n		
Hazardous Components	CAS#	OSHA PEL	ACGIH	Other Limits
Formaldehyde	50-00-0	0.75 ppm	0.3 ppm C*	STEL 2 ppm
Methanol (Skin)	67-56-1	200 ppm	200 ppm	STEL 250 ppm
		*Ceiling		
Section III - Hazards Identification	and Toxological Inf			
Jeografia Hazardo Idonamouton	Emergency Over			
Warning! Inhalation causes irritation	• •		Contact causes ex	e and skin irritation
Route(s) of Entry:	or cycs, nose and unout.	Toxio ii ingesteu. e	ornaot dauses e	yo and skin imation.
Inhalation: Produces irritation to upper	r respiratory tract & eves	May include discom	nfort such as nau	sea headache or
weakness.	respiratory tract a syste.	May molado diocon	nort odon do nad	ood, modddono or
Skin Contact: Produces irritation with	discomfort or rash.			
Eye contact: Causes irritation or seve	ere burns.			
Ingestion: May be fatal or cause b				
Chronic effects:				
Carcinogenicity. Formaldehyde is list				
Teratogenicity: Not teratogenic.	uman evidence shows no	increased risk of ca	incer.	
Teratogenicity: Not teratogenic. Mutagenicity: Not mutagenic in wh	nole animal systems. Mut	increased fisk of ca	incer.	
Teratogenicity: Not teratogenic. Mutagenicity: Not mutagenic in what symptoms. Sensitization to Material: Persons having preexis	nole animal systems. Mut	agenic activity in ba	cterial & mamma	lian cell culture test
Teratogenicity: Not teratogenic. Mutagenicity: Not mutagenic in wh symptoms. Sensitization to Material: Persons having preexis of excessive exposure.	nole animal systems. Muta	agenic activity in ba	cterial & mamma	lian cell culture test
Teratogenicity: Not teratogenic. Mutagenicity: Not mutagenic in wh symptoms. Sensitization to Material: Persons having preexis of excessive exposure. Synergistic materials: None known.	nole animal systems. Muta	agenic activity in ba s, eyes or skin may e may cause bronch	cterial & mamma	lian cell culture test
Teratogenicity: Not teratogenic. Mutagenicity: Not mutagenic in wh symptoms. Sensitization to Material: Persons having preexis of excessive exposure. Synergistic materials: None known.	nole animal systems. Muta sting diseases of the lungs High inhalation exposure	agenic activity in ba s, eyes or skin may e may cause bronch	cterial & mamma	lian cell culture test
Teratogenicity: Not teratogenic. Mutagenicity: Not mutagenic in wh symptoms. Sensitization to Material: Persons having preexis of excessive exposure. Synergistic materials: None known. Foxological Information:	nole animal systems. Muta sting diseases of the lungs High inhalation exposure LD ₅₀ : 1.47 mL/k	agenic activity in ba s, eyes or skin may e may cause bronch	cterial & mamma have increased s	lian cell culture test
Teratogenicity: Not teratogenic. Mutagenicity: Not mutagenic in what symptoms. Sensitization to Material: Persons having preexist of excessive exposure. Synergistic materials' None known. Toxological Information: Section IV - First Aid Procedures:	sting diseases of the lungs High inhalation exposure LD ₅₀ : 1.47 mL/k LD ₅₀ :	agenic activity in ba s, eyes or skin may e may cause bronch	cterial & mamma have increased s	lian cell culture test
Teratogenicity: Not teratogenic. Mutagenicity: Not mutagenic in wh symptoms. Sensitization to Material: Persons having preexis of excessive exposure. Synergistic materials: None known. Foxological Information: Section IV - First Aid Procedures: Inhalation: Remove victim to fresh air.	sting diseases of the lungs High inhalation exposure LD ₅₀ : 1.47 mL/k LD ₅₀ :	agenic activity in ba s, eyes or skin may e may cause bronch (g (oral, rat)	cterial & mamma have increased s conneumonia and LC ₅₀ : LC ₅₀ :	lian cell culture test susceptibility to the hazard Ladema
Teratogenicity: Not teratogenic. Mutagenicity: Not mutagenic in what symptoms. Sensitization to Material: Persons having preexist of excessive exposure. Synergistic materials: None known. Toxological Information: Section IV - First Aid Procedures: Inhalation: Remove victim to fresh air. Ingestion: Induce vomiting by giving 2	nole animal systems. Muta sting diseases of the lungs High inhalation exposure LD ₅₀ : 1.47 mL/k LD ₅₀ : Get medical attention if p	agenic activity in ba s, eyes or skin may e may cause bronch (g (oral, rat)	cterial & mamma have increased s conneumonia and LC ₅₀ : LC ₅₀ :	lian cell culture test usceptibility to the hazard: Ladema attention immediately.
Teratogenicity: Not teratogenic. Mutagenicity: Not mutagenic in what symptoms. Sensitization to Material: Persons having preexist of excessive exposure. Synergistic materials: None known. Foxological Information: Section IV - First Aid Procedures: Inhalation: Remove victim to fresh air. Ingestion: Induce vomiting by giving 2 Skin: Flush contacted area with large a	sting diseases of the lungs High inhalation exposure LD ₅₀ : 1.47 mL/k LD ₅₀ : Get medical attention if p glasses of water and stick	agenic activity in bas, eyes or skin may emay cause bronch (g (oral, rat))	cterial & mamma have increased s conneumonia and LC ₅₀ : LC ₅₀ : coat. Get medical	lian cell culture test usceptibility to the hazard Ladema attention immediately.
Teratogenicity: Not teratogenic. Mutagenicity: Not mutagenic in what symptoms. Sensitization to Material: Persons having preexist of excessive exposure. Synergistic materials: None known. Toxological Information: Section IV - First Aid Procedures: Inhalation: Remove victim to fresh air. Ingestion: Induce vomiting by giving 2 Skin: Flush contacted area with large a Eyes: Flush contacted area with large a	sting diseases of the lungs High inhalation exposure LD ₅₀ : 1.47 mL/k LD ₅₀ : Get medical attention if p glasses of water and stick	agenic activity in bas, eyes or skin may emay cause bronch (g (oral, rat))	cterial & mamma have increased s conneumonia and LC ₅₀ : LC ₅₀ : coat. Get medical	lian cell culture test usceptibility to the hazard: Ladema attention immediately.
Mutagenicity: Not mutagenic in what symptoms. Sensitization to Material: Persons having preexist of excessive exposure. Synergistic materials: None known. Toxological Information: Section IV - First Aid Procedures: Inhalation: Remove victim to fresh air. Ingestion: Induce vomiting by giving 2 Skin: Flush contacted area with large a immediately	sting diseases of the lungs High inhalation exposure LD ₅₀ : 1.47 mL/k LD ₅₀ : Get medical attention if p glasses of water and stick amounts of water. Wash was mounts of water. Irrigate	agenic activity in bas, eyes or skin may emay cause bronch (g (oral, rat))	cterial & mamma have increased s conneumonia and LC ₅₀ : LC ₅₀ : coat. Get medical	lian cell culture test usceptibility to the hazard: Ladema attention immediately.
Teratogenicity: Not teratogenic. Mutagenicity: Not mutagenic in what symptoms. Sensitization to Material: Persons having preexis of excessive exposure. Synergistic materials: None known. Toxological Information: Section IV - First Aid Procedures: Inhalation: Remove victim to fresh air. Ingestion: Induce vomiting by giving 2 Skin: Flush contacted area with large a immediately Section V - Fire and Explosion Haz	sting diseases of the lungs High inhalation exposure LD ₅₀ : 1.47 mL/k LD ₅₀ : Get medical attention if p glasses of water and stick amounts of water. Wash was mounts of water. Irrigate	agenic activity in bas, eyes or skin may emay cause bronch (g) (oral, rat) broblems persist. king finger down throwith soap and water. eyes for a minimum	cterial & mamma have increased s conneumonia and LC ₅₀ : LC ₅₀ : coat. Get medical	lian cell culture test usceptibility to the hazard Ladema attention immediately.
Teratogenicity: Not teratogenic. Mutagenicity: Not mutagenic in what symptoms. Sensitization to Material: Persons having preexis of excessive exposure. Synergistic materials: None known. Toxological Information: Section IV - First Aid Procedures: Inhalation: Remove victim to fresh air. Ingestion: Induce vomiting by giving 2 Skin: Flush contacted area with large a immediately Section V - Fire and Explosion Haz	LD ₅₀ : 1.47 mL/k LD ₅₀ : Get medical attention if p glasses of water and stick amounts of water. Wash water and stick amounts of water. Irrigate	agenic activity in bas, eyes or skin may emay cause bronch (g) (oral, rat) broblems persist. king finger down throwith soap and water. eyes for a minimum	cterial & mamma have increased s conneumonia and LC ₅₀ : LC ₅₀ : Doat. Get medical Wash clothes b	lian cell culture test susceptibility to the hazards adema attention immediately. efore reuse. Set medical attention
Teratogenicity: Not teratogenic. Mutagenicity: Not mutagenic in what symptoms. Sensitization to Material: Persons having preexist of excessive exposure. Synergistic materials: None known. Toxological Information: Section IV - First Aid Procedures: Inhalation: Remove victim to fresh air. Ingestion: Induce vomiting by giving 2 Skin: Flush contacted area with large a immediately Section V - Fire and Explosion Haz Flash Point (Method used)	LD ₅₀ : 1.47 mL/k LD ₅₀ : Get medical attention if p glasses of water and stick amounts of water. Wash water mounts of water. Irrigate card Data Flammable Limits	agenic activity in bas, eyes or skin may emay cause bronch (g) (oral, rat) broblems persist. king finger down throwith soap and water. eyes for a minimum	cterial & mamma have increased s conneumonia and LC ₅₀ : LC ₅₀ : vat. Get medical Wash clothes b of 15 minutes. G	attention immediately. Get medical attention UEL
Teratogenicity: Not teratogenic. Mutagenicity: Not mutagenic in what symptoms. Sensitization to Material: Persons having preexist of excessive exposure. Synergistic materials: None known. Foxological Information: Section IV - First Aid Procedures: Inhalation: Remove victim to fresh air. Ingestion: Induce vomiting by giving 2 Skin: Flush contacted area with large a immediately Section V - Fire and Explosion Haz Flash Point (Method used) 137°F (58°C) (RTCC)	sting diseases of the lungs High inhalation exposure LD ₅₀ : 1.47 mL/k LD ₅₀ : Get medical attention if p glasses of water and stick amounts of water. Wash water water and stick the strength of the stren	agenic activity in base, eyes or skin may emay cause bronch (g) (oral, rat) broblems persist. king finger down through the company and water. eyes for a minimum state by Volume Hazardous Combi	cterial & mamma have increased s conneumonia and LC ₅₀ : LC ₅₀ : Dat. Get medical Wash clothes b of 15 minutes. G	attention immediately. Get medical attention UEL 73% 36.5%
Teratogenicity: Not teratogenic. Mutagenicity: Not mutagenic in wh symptoms. Sensitization to Material: Persons having preexis of excessive exposure. Synergistic materials: None known. Foxological Information: Section IV - First Aid Procedures: Inhalation: Remove victim to fresh air. Ingestion: Induce vomiting by giving 2 Skin: Flush contacted area with large a inmediately Section V - Fire and Explosion Haz Flash Point (Method used) 137°F (58°C) (RTCC) Extinguishing Media Water, dry chemical, carbon dioxide or all	sting diseases of the lungs High inhalation exposure LD ₅₀ : 1.47 mL/k LD ₅₀ : Get medical attention if p glasses of water and stick amounts of water. Wash water water and stick the strength of the stren	agenic activity in base, eyes or skin may emay cause bronch (g) (oral, rat) broblems persist. king finger down through the company and water. eyes for a minimum state by Volume Hazardous Combi	cterial & mamma have increased sonneumonia and LC ₅₀ : LC ₅₀ : LC ₅₀ : LC ₅₀ : LEL 7% 6% ustion Products existing Prod	attention immediately. Get medical attention UEL 73% 36.5% dioxide
Teratogenicity: Not teratogenic. Mutagenicity: Not mutagenic in wh symptoms. Sensitization to Material: Persons having preexis of excessive exposure. Synergistic materials: None known. Toxological Information: Section IV - First Aid Procedures: Inhalation: Remove victim to fresh air. Ingestion: Induce vomiting by giving 2 Skin: Flush contacted area with large a immediately Section V - Fire and Explosion Haz Flash Point (Method used) 137°F (58°C) (RTCC) Extinguishing Media Water, dry chemical, carbon dioxide or all	sting diseases of the lungs High inhalation exposure LD ₅₀ : 1.47 mL/k LD ₅₀ : Get medical attention if p glasses of water and stick amounts of water. Wash water water and stick the strength of the stren	agenic activity in ba s, eyes or skin may e may cause bronch kg (oral, rat) problems persist. king finger down thre with soap and water. eyes for a minimum s by Volume Hazardous Combo Carbon mono	cterial & mamma have increased s conneumonia and LC ₅₀ : LC ₅₀ : LC ₅₀ : Dat. Get medical Wash clothes b of 15 minutes. G LEL 7% 6% ustion Products existe and carbon perature	attention immediately. Get medical attention UEL 73% 36.5%
Teratogenicity: Not teratogenic. Mutagenicity: Not mutagenic in wh symptoms. Sensitization to Material: Persons having preexis of excessive exposure. Synergistic materials: None known. Foxological Information: Section IV - First Aid Procedures: Inhalation: Remove victim to fresh air. Ingestion: Induce vomiting by giving 2 Skin: Flush contacted area with large a immediately Section V - Fire and Explosion Haz Flash Point (Method used) 137°F (58°C) (RTCC) Extinguishing Media Water, dry chemical, carbon dioxide or all Special Fire fighting Procedures None.	sting diseases of the lungs High inhalation exposure LD ₅₀ : 1.47 mL/k LD ₅₀ : Get medical attention if p glasses of water and stick amounts of water. Wash water water and stick the strength of the stren	agenic activity in ba s, eyes or skin may e may cause bronch (g (oral, rat) problems persist. king finger down thro with soap and water. eyes for a minimum by Volume Hazardous Combo Carbon mono Auto-ignition Tem Not available	cterial & mamma have increased sonneumonia and LC ₅₀ : LC ₅₀ : LC ₅₀ : LC ₅₀ : Doat. Get medical Wash clothes b of 15 minutes. Get LEL 7% 6% Justion Products Description of the solution of the so	attention immediately. Get medical attention UEL 73% 36.5% dioxide Gensitivity to Static Discharg
Mutagenicity: Not mutagenic in what symptoms. Sensitization to Material: Persons having preexisting of excessive exposure. Synergistic materials: None known. Toxological Information: Section IV - First Aid Procedures: Inhalation: Remove victim to fresh air. Ingestion: Induce vomiting by giving 2 Skin: Flush contacted area with large a immediately Section V - Fire and Explosion Haz Flash Point (Method used) 137°F (58°C) (RTCC) Extinguishing Media Water, dry chemical, carbon dioxide or all Special Fire fighting Procedures None.	sting diseases of the lungs High inhalation exposure LD ₅₀ : 1.47 mL/k LD ₅₀ : Get medical attention if p glasses of water and stick amounts of water. Wash water water and stick the strength of the stren	agenic activity in ba s, eyes or skin may e may cause bronch kg (oral, rat) problems persist. king finger down thro vith soap and water. eyes for a minimum s by Volume Hazardous Combo Carbon mono Auto-ignition Temp	cterial & mamma have increased sonneumonia and LC ₅₀ : LC ₅₀ : LC ₅₀ : LC ₅₀ : Doat. Get medical Wash clothes be of 15 minutes. Get LEL 7% 6% Justion Products Existing Produc	attention immediately. efore reuse. Get medical attention UEL 73% 36.5% dioxide Gensitivity to Static Discharg
Teratogenicity: Not teratogenic. Mutagenicity: Not mutagenic in what symptoms. Sensitization to Material: Persons having preexistic of excessive exposure. Synergistic materials: None known. Toxological Information: Section IV - First Aid Procedures: Inhalation: Remove victim to fresh air. Ingestion: Induce vomiting by giving 2 Skin: Flush contacted area with large a symmediately. Section V - Fire and Explosion Hazer (Method used) 137°F (58°C) (RTCC) Extinguishing Media Water, dry chemical, carbon dioxide or all Special Fire fighting Procedures None. Unusual Fire and Explosion Hazards	sting diseases of the lungs High inhalation exposure LD ₅₀ : 1.47 mL/k LD ₅₀ : Get medical attention if p glasses of water and stick amounts of water. Wash water water and stick the strength of the stren	agenic activity in ba s, eyes or skin may e may cause bronch (g (oral, rat) problems persist. king finger down thro with soap and water. eyes for a minimum by Volume Hazardous Combo Carbon mono Auto-ignition Temp Not available Conditions of Flan	cterial & mamma have increased s conneumonia and LC ₅₀ : LC ₅₀ : Doat. Get medical Wash clothes b of 15 minutes. Get LEL 7% 6% LEL 7% 6% LEL 10% 10% 10% 10% 10% 10% 10% 10% 10% 10%	attention immediately. Get medical attention UEL 73% 36.5% dioxide Gensitivity to Static Discharg

FORM NUMBER: 50085

Section VI - Personal Protective Equipment

Respiratory Protection:

Wear a vapor mask with organic vapor or formaldehyde cartridge for small spills. Use a self-contained breathing apparatus for uncontrolled releases.

Engineering Controls:

Maintain adequate ventilation to keep vapors below exposure limit.

Protective Gloves: Eye Protection:

Rubber or neoprene gloves. Face shield with safety glasses or safety goggles.

Other Protective Clothing or Equipment:

Protective clothing to avoid skin contact. Eyewash station and safety shower.

Work/Hygienic Practices

Avoid unnecessary and prolonged contact. Avoid breathing vapors. Wash thoroughly after handling.

Section VII - Accidental Release Measures/Preventative Measures

Steps to be Taken in Case Material is Released or Spilled:

Eliminate sources of ignition. Ventilate area well - use a fan if available. Clean up small spills with water. Soak up larger spills with noncombustible absorbent material. Place used absorbent in closed containers for disposal. Neutralize remaining odor with an ammonia, cold water mixture. Mop area with plenty of clean, cold water. Work for short periods of time (15 minutes).

Waste Disposal Method

Dispose of in accordance with federal, state and local regulations.

Precautions to be Taken in Handling and Storing

Do not store above 110° F (43°C). Do not freeze.

Other Precautions

Do not get liquid in eyes or on skin. Do not inhale vapors. Wash thoroughly after handling.

Section VIII - Physical/Chemical Characteristics

Boiling Point	Specific Gravity (H20 = 1)	Physical State	
210° F (99°C)	1.08	Liquid	
Vapor Pressure (mm Hg)	Melting Point	Odor Threshold	
Approximately 17-20 @ 25 °C	Not applicable	0.05 - 1.0 ppm	
Vapor Density (AIR = 1)	Evaporation Rate (Butyl Acetate = 1)	Freezing Point	
1.03	Similar to water >1	Does not freeze	
Solubility in Water	рН	Coeff. Water/Oil Dist.	
Complete	3.5 - 5.0	Not determined	

Appearance and Odor

Blue liquid with pungent odor

Section IX - Reactivity Hazards

Stability	-	Hazardous Polymerization
X	Stable	May Occur
	Unstable	X Will Not Occur

Incompatibility (Materials to Avoid)

Phenols, inorganic acids, strong oxidizing agents, strong alkalis

Hazardous Decomposition or Byproducts

Thermal decomposition may produce carbon monoxide and carbon dioxide

Conditions to Avoid

Elevated temperatures

Section XI - Shipping Information

Transportation Status: Regulated

ID Number: Proper Shipping Name: Hazard Class: Pkg Group:

UN1198 Formaldehyde solutions, flammable 3 III

(Limited Quantity)

Regulated under all modes of transportation as UN11989 in limited quantities. Consult the individual regulations, IATA via air, IMDG via water and TDG for Canadian shipping information. NOT PACKAGED FOR AIR TRANSPORT.