MSDS

(Posted 9/14/2012)

The attached MSDS supersede all other MSDS. Please file accordingly.

VENDOR: **NU-CALGON, A389-92**

STOCK#	MFG#	DESCRIPTION
B82-046	4340-08	SCALE INHIB 1GAL
B82-047	4340-05	SCALE INHIB 5GAL

MATERIAL SAFETY DATA SHEET

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Company Name	Phone Number			CHEMTREC
Nu-Calgon Wholesaler, Inc.	(314) 469-7000 / (800) 554-5499			(800) 424-9300
Street Address	**City**	**State**	**Postal Code**	**Last Update**
2008 Altom Court	St. Louis	MO	63146-4151	2/24/10
Product Name	**Product Number**	**Product Use**		**EPA Registration #**
Scale Inhibitor No. 340	4340	Aqueous Cooling Tower Treatment		N/A

SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients	% By Wt.	CAS Number	TLV	PEL
Aminotri(methylene-phosphonic acid), tetrasodium salt	15-30	20592-85-2	None established	None established
Ethylene Glycol	10-20	107-21-1	Ceiling: 50 mg/m3 (vapor)	Ceiling: 50 mg/m3

SECTION 3 – HAZARD IDENTIFICATION

Emergency Overview: Clear, colorless liquid to pale yellow liquid. WARNING! May cause irritation to the eyes, skin, and respiratory tract. May cause an allergic skin reaction. Harmful or fatal if swallowed. Harmful if inhaled or absorbed through the skin. PRIMARY ROUTES OF ENTRY: Eye contact, skin contact, ingestion, and inhalation of product mists TARGET ORGANS: Eye, skin, respiratory system, liver, kidney, and central nervous system

Potential Health Effects

Eyes: Contact with this product may cause eye irritation.

Skin: Contact with this product may cause skin irritation. Massive contact with damaged skin or of material sufficiently hot to burn skin may result in the absorption of potentially lethal amounts of the product component, ethylene glycol.

Ingestion: This product contains ethylene glycol. Ingestion of large volumes of ethylene glycol may result in central nervous system depression and kidney damage. Cardiac failure and pulmonary edema may develop. Early to moderate CNS depression may be evidenced by giddiness, headache, dizziness, and nausea. Kidney damage may be evidenced by changes in urine output, urine appearance, or edema (swelling from fluid retention).

Inhalation: This product is not expected to present an inhalation hazard unless mists or vapors are generated. Significant air concentrations are not achieved unless the product is heated or sprayed as a mist. Exposure to vapors or mists may cause throat irritation, headache, nausea, vomiting, dizziness, drowsiness, central nervous system depression, pulmonary edema, involuntary eye movement, and/or coma.

Chronic Exposure: No information is available for this product. Information on components follows. Aminotri(methylenephosphonic acid) (ATMP) was fed to rats at 50, 150, or 500 mg/Kg/day for 2 years. Reduced body weights and changes in liver, spleen, and kidney weights or weight ratios were observed in the high-dose group. No adverse histologic, hematologic, biochemical, or urinalysis effects were observed. The no-effect level was considered to be 150 mg/Kg/day. No adverse treatment-related effects on reproduction and no pathologic lesions were observed in either parental animals or pups following dietary administration of ATMP to male and female rats at concentration of 300, 1000, or 3000 ppm throughout premating, mating, gestation, and lactation periods for 3 generations. Repeated small exposures to the ethylene glycol by any route can cause severe kidney problems. Brain damage may also occur. Skin allergy can develop. Exposure may damage a developing fetus.

Carcinogenicity: NTP: No ingredients listed in this section IARC: No ingredients listed in this section OSHA: No ingredients listed in this section

Medical Conditions Aggravated be Exposure: Persons with pre-existing eye problems, skin disorders, or impaired liver, kidney, or respiratory function may be more susceptible to the effects of this substance.

SECTION 4 – FIRST AID MEASURES

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eye lids occasionally. Seek medical attention immediately.

Skin: Remove any contaminated clothing. Wash skin with plenty of soap and water for at least 15 minutes. Seek medical attention if irritation develops or persists.

Ingestion: Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Seek medical attention immediately.

Inhalation: If inhalation occurs, remove victim to fresh air. If the breathing stops, give artificial respiration. If breathing is difficult, have a trained medical person administer oxygen. Seek medical aid.

SECTION 5 – FIREFIGHTING MEASURES

Flash Point: N/A°C/N/A°F
Autoignition Temp: N/A°C/N/A°F
Hazardous Products of Combustion: N/A
Flammable Limits in Air: No Data.
Extinguishing Media: Use dry chemical, foam, or carbon dioxide. Water or foam may cause frothing. Water spray may be used to extinguish surrounding fire and cool exposed containers. Water spray will also reduce fume and irritant gases.
Fire and Explosion Hazards: Containers may explode when involved in a fire. Toxic gases and vapors may be released in a fire.
Special Firefighting Procedures: Exercise caution when fighting any chemical fire. A self-contained breathing apparatus and protective clothing are essential.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Spill or Leak: Wear appropriate personal protective equipment as specified in Section 8. Ventilate the area of the leak or spill. Isolate the hazard area. Keep unnecessary and unprotected personnel from entering the area. Contain and recover the liquid when possible. Collect the liquid in an appropriate container. Then absorb the residue with an inert material (e.g. vermiculite, dry sand, earth), and place the used absorbent in a chemical waste container. Do not flush to the sewer! Dispose of recovered liquid, if unusable, and used absorbent according to federal, state, and local regulations. US Regulations (CERCLA) require the reporting of spills and releases to soil, water, and air in excess of reportable quantities. (See Section 15, "Regulatory Information".) The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

SECTION 7 – HANDLING AND STORAGE

Handling Procedures and Equipment: Avoid contact with eyes, skin, and clothing. Avoid breathing vapor or mist. Use with adequate ventilation. Wash thoroughly after handling. Keep containers closed when not in use.
Storage Requirements: Store in a cool, dry, well-ventilated area away from incompatible materials. Protect against the physical damage of containers. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid). Observe all warnings and precautions listed for this product.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: If airborne concentrations exceed published exposure limits, use a NIOSH approved respirator in accordance with OSHA respiratory protection requirements (29 CFR 1910.134).
Eye Protection: Chemical splash goggles
Protective Clothing: Chemical resistant gloves and impervious protective clothing, including boots, lab coat, apron or coveralls, as appropriate, to prevent skin contact.
Exposure Guidelines: No Data.
Specific Engineering Controls (such as ventilation, enclosed process): Use local and/or general exhaust ventilation to maintain airborne concentrations below irritating levels or airborne exposure limits, whichever is lower. Local exhaust is generally preferred because it can control the emission of the contaminant at its source, thus preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, the most recent edition, for details. An eye wash station and safety shower should be accessible in the immediate area of use.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: Liquid	**Freezing Point:** No Data.°C/No Data.°F	**% Volatile by Weight:** No Data.%
Color: Clear, colorless to pale yellow	**Vapor Density [air =1]:** No Data.	**Evaporation Rate:** No Data.
Odor: no odor	**Vapor Pressure:** No Data.	**Specific Gravity:** 1.22-1.28 g/mL
Boiling Point: No Data.°C/No Data.°F	**Solubility in Water:** Complete	**pH (concentrate):** 7.8-8.2

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability: Stable
Hazardous Polymerization: Will not occur.
Incompatibilities: Avoid contact with strong oxidizing agents, such as nitric acid. Avoid strong acids and strong bases.
Reactive Conditions to avoid: Incompatibles.
Decomposition Products: Thermal decomposition or combustion may produce oxides of carbon, nitrogen, and sodium. Acrid smoke and irritating fumes may be produced when ethylene glycol is heated to decomposition.

SECTION 11 – TOXICOLOGICAL INFORMATION

Hazardous Ingredients	CAS #	EINECS #	LD 50 of Ingredient (Specify Species)	LC50 of Ingredient (Specify Species)
Aminotri(methylene-phosphonic acid), ATMP	No Data.	No Data.	Oral LD50 (rat) 2,910 mg/Kg Dermal LD50 (rabbit) >6,310 mg/Kg	N/A
Ethylene glycol	No Data.	No Data.	Oral LD50 (rat) 4,700 mg/Kg Dermal LD50 (rabbit) 9,530 uL/Kg	Inhalation LC50 (rat)12,111 mg/L

SECTION 12 – ECOLOGICAL INFORMATION

Hazardous Ingredients	Aquatic Toxicity Data
Aminotri(methylene-phosphonic acid), ATMP	48 hr LC50 (Daphnia magna): 297 mg/L 96 hr LC50 (Bluegill sunfish): >330 mg/L 96 hr LC50 (Rainbow trout): > 330 mg/L
Ethylene glycol	48 hr LC50 (Daphnia magna): 51,000 mg/L 24 hr LC50 (Goldfish): > 5,000 mg/L 96 hr LC50 (Bluegill): 27,540 mg/L 96 hr LC50 (Rainbow trout): 41,000 mg/L 96 hr LC50 (Fathead minnow): 49,000 mg/L

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Disposal: RCRA STATUS: Discarded product, as sold, would be not considered a RCRA Hazardous Waste. DISPOSAL: Dispose of in accordance with local, state, and federal regulations.

SECTION 14 – TRANSPORTATION INFORMATION

Special Shipping Information: No Data.

Purview	Proper Shipping Name	UN Number	Packing Group	Hazard Class
DOT (Land)	Not Regulated.			
IMO (Water)	No Data.			
ICAO (Air)	No Data.			

SECTION 15 – REGULATORY INFORMATION

WHMIS Classification: (Workplace Hazardous Material Information System)	Class D2B-Materials causing other toxic effects-toxic materials.
SARA Title III: (Superfund Amendments & Reauthorization Act)	Immediate Yes/ Delayed Yes/ Fire No/ Pressure No/ Reactivity No Section 313 Toxic Chemicals (40 CFR 372): Chemical Name CAS Number Percent by Weight Ethylene glycol 107-21-1 13.1
OSHA: (Occupational Safety & Health Administration)	Hazardous
TSCA: (Toxic Substance Control Act)	The ingredients of this product are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.
VOC: (volatile Organic Compounds)	No Data.
CPR: (Canadian Controlled Products Regulations)	This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations.
EINECS: (European Inventory of Existing Commercial Chemical Substances)	No Data.
DSL / NDSL: (Canadian Domestic Substance List)(Non-Domestic Substance List)	No Data.
CERCLA: (Comprehensive Response Compensation & Liability Act)	Chemical Name CERCLA Reportable Quantity (RQ) Ethylene Glycol 5,000 lb Product: 38,170 lb (Notify the EPA of spills exceeding this amount.)
IDL: (Canadian Ingredient Disclosure List)	No Data.
NFPA (HMIS) Rating: (Hazardous Materials Identification System)	Health = 1 Flammability = 1 Reactivity = 0

SECTION 16 – OTHER INFORMATION

No Data.