


# Safety Data Sheet

ADENA 9890

## SECTION I - IDENTIFICATION

	General Products & Supply, Inc. Murrysville Industrial Park Export, PA 15632 (888) 247-2312 CHEMTEL :..... (800) 225-3924
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<b>Product Number</b>	AD9890
<b>Product Name</b>	ADENA 9890
<b>Chemical Family</b>	Industrial Water Treatment Compound, Liquid
<b>CAS Number</b>	Multiple
<b>Date Prepared</b>	10/9/2015
<b>Revision Number</b>	10/9/2015
<b>Recommended Use</b>	Antiscalant for Reverse Osmosis Membranes

## SECTION II - HAZARDOUS IDENTIFICATION

### GHS CLASSIFICATION:

#### Classification

Corrosive to Metals	Category 1
Acute Toxicity, Oral	Category 4
Acute Toxicity, Dermal	Category 4
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 1
Acute Toxicity, Inhalation	Category 4
Hazardous to the aquatic environment, acute hazard	Category 3

### DANGER!

#### GHS LABEL:



#### Hazard Statements

H290	May be corrosive to metals
H302	Harmful if swallowed
H312	Harmful in contact with skin
H315	Causes skin irritation
H318	Causes serious eye damage
H332	Harmful if inhaled
H402	Harmful to aquatic life

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## Precautionary Statements

P234	Keep only in original packaging
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash... thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated are.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302+352	IF ON SKIN: Wash with plenty of water/...
p304+340	IF INHALED: Remove victim to fresh air and keep comfortable for breathing.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so - continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.
P312	Call a POISON CENTER or a doctor/physician if you feel unwell.
P321	Specific treatment (see ... on this label).
P330	Rinse mouth.
P332+313	If skin irritation occurs: get medical advice/attention.
P362+364	Take off immediatley all contaminated clothing and wash it before reuse.
p390	Absorb spillage to prevent material damage.
P406	Store in a corrosive resistant/... container with a resistant inner liner.
P501	Dispose of contents/container to...

## SECTION III - COMPOSITION/INFORMATION ON INGREDIENTS

The precise composition of this product is proprietary information. In the event of a medical emergency, a complete disclosure will be provided to medical personnel.

Component Name	CAS #	Component%	OSHA PEL	ACGIH TLV
Demineralized water	7732-18-5	Balance	Not Established	Not Established
2-Hydroxy-1,2,3-Propanetricarboxylic Acid (Citric acid Anhydrous, citric acid)	77-92-9	15-20	Not Established	Not Established
1-Hydroxyethylidene-1,1-diphosphonic acid	0002809-21-4	0.5-1.0	Not Established	Not Established
2-Propenoic acid, telomer with sodium hydrogen sulfite, sodium salt	68479-09-4	0.5-1.0	NOT ESTABLISHED	NOT ESTABLISHED

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### SECTION IV - FIRST AID MEASURES

- Contact with eyes:** Eye irritation. Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get medical attention if irritation persists.
- Skin contact:** Itching or burning of the skin. Immediately flush the skin with plenty of water while removing contaminated clothing and shoes. Get medical attention if irritation persists. Wash contaminated clothing before reuse.
- Inhalation:** Nasal irritation, headache, dizziness, breathing difficulty, cyanosis, tremors, weakness, red flushing of face, irritability. Remove exposed person from source of exposure to fresh air. If not breathing, clear airway and start cardiopulmonary resuscitation (CPR). Avoid mouth-to-mouth resuscitation.
- Ingestion:** Get immediate medical attention. Do not induce vomiting unless directed by medical personnel. Get medical attention

### SECTION V - FIREFIGHTING MEASURES

- Suitable Extinguishing Media:** As appropriate for the surrounding fire.
- Special Fire Fighting Procedures** Do not flush down sewers or other drainage systems. Exposed firefighters must wear NIOSH-approved positive pressure self-contained breathing apparatus with full-face mask and full protective clothing.
- Unusual Fire Fighting Hazards:** Thermal decomposition products may include oxides of potassium and sulfur.

### SECTION VI - ACCIDENTAL RELEASE MEASURES

- Personal Precautions:** Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind; keep out of low areas. (Also see Section 8).
- Environmental Precautions:** Contain spill if it can be done with minimal risk. Prevent liquid from entering drains, sewers or waterways. Notify proper authorities. Take up with sand or other noncombustible absorbent material and place into containers for later disposal. Large spills: Dike far ahead of liquid spill for later disposal.
- Methods for Cleaning Up:** Small spills: Take up with sand or other noncombustible absorbent material and place into containers for later disposal. Large spills: Dike far ahead of liquid spill for later disposal.

### SECTION VII - HANDLING AND STORAGE

- Handling and Storage:**
- Store in tightly closed containers in cool, dry, well-ventilated area away from heat, sources of ignition and incompatibles. Store at ambient or lower temperature. Store out of direct sunlight. Keep containers tightly closed and upright when not in use. Protect against physical damage. Empty containers may contain harmful residue or vapors.

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### SECTION VIII - PRECAUTIONS TO CONTROL EXPOSURE / PERSONAL PROTECTION

#### EXPOSURE LIMITS:

Component Name	CAS #	OSHA PEL	ACGIH TLV
Demineralized water	7732-18-5	Not Established	Not Established
2-Hydroxy-1,2,3-Propanetricarboxylic Acid (Citric acid Anhydrous, citric acid)	77-92-9	Not Established	Not Established
1-Hydroxyethylidene-1,1-diphosphonic acid	0002809-21-4	Not Established	Not Established
2-Propenoic acid, telomer with sodium hydrogen sulfite, sodium salt	68479-09-4	NOT ESTABLISHED	NOT ESTABLISHED

**Engineering Controls:** Adequate local or mechanical to reduce vapor or mist to below the PEL or TLV.

Local exhaust ventilation may be necessary to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source. Provide mechanical ventilation for confined spaces. Use explosion-proof ventilation equipment.

**Monitoring:** When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

#### Personal Protective Equipment (PPE)

**Eye Protection:** Wear chemical safety goggles and face shield. Have eye-wash stations available where eye contact can occur.

**Skin Protection:** Avoid skin contact. Wear gloves impervious to conditions of use. Additional protection may be necessary to prevent skin contact including use of apron, face shield, boots or full body protection. A safety shower should be located in the work area.

**Respiratory Protection:** If exposure limits are exceeded, NIOSH approved respiratory protection should be worn. A NIOSH approved respirator for organic vapors is generally acceptable for concentrations up to 10 times the PEL. For higher concentrations, unknown concentrations and for oxygen deficient atmospheres, use a NIOSH approved air-supplied respirator. Engineering controls are the preferred means for controlling chemical exposures. Respiratory protection may be needed for non-routine or emergency situations. Respiratory protection must be provided in accordance with OSHA 29 CFR 1910.134.

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### SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear to pale yellow liquid
Odor	Distinct
pH@25°C	<2.5
Melting/Freezing Point	Not known
Flashpoint	Not Combustible
Specific Gravity	1.1 -1.120 g/ml
Solubility	Complete
Auto-Ignition Temperature	Not known
Decomposition Temperature	Not known
VOC Content	No Data
Odor Threshold	No Data
Boiling Range	100-110°C @ 760 mm Hg
Evaporation Point	Not Known (Water)
Flammable Limits - Upper	N/A
Flammable Limits - Lower	N/A
Vapor Pressure	Not known
Vapor Density (Air=1)	Not known
Viscosity	No Data

### SECTION X - STABILITY AND REACTIVITY

**Stability:** Stable, under normal conditions of storage and handling.

**Conditions to Avoid:** Contact with incompatible materials.

**Hazardous Decomposition/Byproducts:** None known

**Hazardous Polymerization:** Will not occur.

**Polymerization Conditions to Avoid:** None

**Incompatibilities:** Strong Oxidizers and bases

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### SECTION XI - TOXICOLOGICAL INFORMATION

**Likely Route of Exposure:** Inhalation, Skin, Eye, Ingestion.

**Inhalation:** May cause severe irritation with possible lung damage (pulmonary edema).

**Eye Contact:** May cause severe conjunctival irritation and corneal damage.

**Skin Contact:** may cause reddening, blistering or burns with permanent damage. Harmful if absorbed through the skin.

**Ingestion:** may cause severe gastrointestinal irritation.

**Acute Toxicity Value:** See Health Hazards below.  
Acute Toxicity Values Oral LD50 (Rat) = > 2000 mg/kg Dermal LD50 (Rabbit) = > 2000 mg/kg Inhalation LC50 (Rat) = no data available

**Chronic (Long Term) Effects:** Repeated exposure to the neat material can cause permanent scarring to already damaged tissue

#### Toxicity:

Component Name	LD50	LC50
Demineralized water	Not Established	Not Established
2-Hydroxy-1,2,3-Propanetricarboxylic Acid (Citric acid Anhydrous, citric acid)	Oral - Rat - 5,400 mg/kg; Dermal - Rat - > 2,000 mg/kg	Not Established
1-Hydroxyethylidene-1,1-diphosphonic acid	Oral LD50 2,400.00, Rat, Skin LD50 10,000.00 Rabbit	Not Listed
2-Propenoic acid, telomer with sodium hydrogen sulfite, sodium salt	ORAL RAT >2000 mg/kg	No Established

**Reproductive Effects** Not Applicable

**Teratogenicity** Not Applicable

**Mutagenicity** Not Applicable

**Embryotoxicity** Not Applicable

**Sensitization to Product** Not Applicable

**Synergistic Products** Not Applicable

**Carcinogenicity** Not Applicable

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### SECTION XII - ECOLOGICAL INFORMATION

**Ecotoxicity:** Harmful to aquatic life.  
AQUATIC TOXICITY (E.G. 96 HR. TLM): 48 HR, EC50, DAPHNIA MAGNA: >500  
MG/L 96 HR, LC50, RAINBOW TROUT: > 500 MG/L 96 HR, LC50, BLUEGILL  
SUNFISH: > 500 MG/L 96 HR, EC50, ALGAE:> 300 MG/L

**Mobility:** Information not available.

**Degradability:** 33%, 28D

**BioAccumulation:** Not expected to bioaccumulate.

### SECTION XIII - WASTE DISPOSAL CONSIDERATIONS

DISPOSE OF ALL MATERIAL IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL LAWS. THIS MATERIAL DOES NOT MEET RCRA'S CHARACTERISTIC DEFINITION CORROSIVITY

### SECTION XIV - TRANSPORT INFORMATION

#### DOT SHIPPING INFORMATION

**Proper Shipping Name:** CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.

**Contains:** PHOSPHONIC ACID

**Hazard Class and Label:** 8

**Identification Number:** UN3265

**Packaging Group:** III

**Other Shipping Info:** SPECIAL PRECAUTIONS FOR USER: Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC  
Code: Not established.

### SECTION XV - REGULATORY INFORMATION

**TSCA STATUS:**..... The components of this product are listed on the TSCA Inventory

**SARA TITLE III SECTION 302/304 EXTREMELY HAZARDOUS SUBSTANCE:**

No chemicals in this material are subject to the reporting requirements.

**SARA TITLE III SECTION 311/312 HAZARD CATEGORIZATION:**

Acute	Chronic	Fire	Pressure	Reactive
X	N/A	N/A	N/A	N/A

**SARA TITLE III SECTION 313 SUPPLIER INFORMATION:**

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No chemicals in this material are subject to the reporting requirements.

### CERCLA SECTION 102(a) HAZARDOUS SUBSTANCE:

No chemicals in this material are subject to the reporting requirements.

### CALIFORNIA PROPOSITION 65:

No chemicals in this material are subject to the reporting requirements.

## SECTION XVI - OTHER INFORMATION

HMIS Health:..... 2

HMIS Flammability: ..... 0

HMIS Reactivity: ..... 1

**Additional:** Prepared by: Dean Norwood, Technical Director  
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