

SAFETY DATA SHEET (S.D.S.)

SECTION I - IDENTIFICATION

Product Name: ADENA 2930
Product Number: AD2930
Synonyms: Water Treatment Compound, Liquid
CAS Number: Multiple
Product Use: Corrosion & Scale Inhibitor
Manufacturer/Supplier: Adena Technologies.
Address: 101 Technology Lane
Export, Pa 15632
www.adenatechnologies.com
General Information: 888-247-2312
Chemical Emergency Number: 1-800-255-3924

SECTION II - HAZARDOUS IDENTIFICATION

GHS CLASSIFICATION:

Classification

Corrosive to Metals	Category 1
Acute Toxicity, Oral	Category 4
Acute Toxicity, Dermal	Category 3
Skin Corrosion/Irritation	Category 1A, B, C
Sensitization, Skin	Category 1
Serious Eye Damage/Eye Irritation	Category 1
Acute Toxicity, Inhalation	Category 4
Specific target organ toxicity, repeated exposure	Category 2
Hazardous to the aquatic environment, acute hazard	Category 3

DANGER!

GHS LABEL:



Hazard Statements

H290	May be corrosive to metals
H302	Harmful if swallowed
H311	Toxic in contact with skin
H314	Causes severe burns and eye damage
H317	May cause an allergic skin reaction
H318	Causes serious eye damage

H332	Harmful if inhaled
H373	Causes damage to organs through prolonged or repeated exposure
H402	Harmful to aquatic life

Precautionary Statements

P234	Keep only in original container.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
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.
P301+330+331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+352	IF ON SKIN: Wash with soap and water.
P303+361+353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position 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.
P314	Get medical advice/attention if you feel unwell.
P322	Specific measures (see ... on this label).
P330	Rinse mouth.
P333+313	If skin irritation or a rash occurs: Get medical advice/attention.
P361	Remove/Take off immediately all contaminated clothing.
P363	Wash contaminated clothing before reuse.
p390	Absorb spillage to prevent material damage.
P404	Store in a closed container.
P405	Store locked up.

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
Polymaleic Homopolymer	26099-09-2	3-5		
Polyacrylate Homopolymer	68479-09-4	3-5		
Potassium Hydroxide	1310-58-3	12-18	2 mg/m ³ , Ceiling	2 mg/m ³ , Ceiling
Diphosphoric acid, potassium salt (1:4)	7320-34-5	5-8	Not Established	Not Established
SODIUM SULFITE	7757-83-7	7-9		
Water	7732-18-5	Balance	Not Established	Not Established

SECTION IV - FIRST AID MEASURES

Contact with eyes: In case of contact with substance, immediately flush eyes with running water for at least 15 minutes. Seek immediate medical attention, preferably with an ophthalmologist. If the physician is not immediately available, eye irrigation should be continued for an additional 15 minutes. If it is necessary to transport the patient to a physician and the eye needs to be bandaged, use a dry sterile cloth pad and cover both

Skin contact: For minor skin contact, avoid spreading material on unaffected skin. In case of contact with substance, immediately flush skin with running water for at least 20 minutes.

Inhalation: Administer oxygen if breathing is difficult. Do not use mouth-to-mouth methods if victim inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Give artificial respiration if victim is not breathing. Move victim to fresh air.

Ingestion: If swallowed give 2-3 glasses of water if victim is conscious and alert. Do not give anything by mouth to an unconscious person. Do NOT induce vomiting. Obtain medical attention immediately if ingested. Do not use mouth-to-mouth method if victim ingested the substance. Do not leave victim unattended. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. Persons attending the victim should avoid direct contact with heavily contaminated clothing and vomitus.

SECTION V - FIREFIGHTING MEASURES

Suitable Extinguishing Media: As appropriate for the surrounding fire.

Special Fire Fighting Procedures Use self-contained breathing apparatus and full bunker gear in fire areas. Evacuate all unprotected personnel from area. Keep containers cool with water fog to minimize swelling taking care not to spread flames with water used for cooling.
Do not flush down sewers or other drainage systems.

Unusual Fire Fighting Hazards: Not combustible. Under fire conditions, toxic, corrosive fumes are emitted.

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:**
- Do not get in eyes, on skin or on clothing. Do not breathe vapors or mists. Keep container closed. Use only with adequate ventilation. Use good personal hygiene practices. Wash hands before eating, drinking, smoking. Remove contaminated clothing and clean before re-use.
 - Keep container tightly closed. Store in a cool, dry, well-ventilated place. Store in corrosive resistant container with a resistant inner liner. Store away from incompatible materials (See Section 10). Store at temperatures not exceeding 40°C/104°F. Compatible storage materials may include, but not be limited to, the following: nickel and nickel alloys, steel, plastics, plastic or rubber-lined steel, FRP, or Derakane vinyl ester resin. Do not allow material to freeze.

SECTION VIII - PRECAUTIONS TO CONTROL EXPOSURE / PERSONAL PROTECTION

EXPOSURE LIMITS:

Component Name	CAS #	OSHA PEL	ACGIH TLV
Polymaleic Homopolymer	26099-09-2		
Polyacrylate Homopolymer	68479-09-4		
Potassium Hydroxide	1310-58-3	2 mg/m ³ , Ceiling	2 mg/m ³ , Ceiling
Diphosphoric acid, potassium salt (1:4)	7320-34-5	Not Established	Not Established
SODIUM SULFITE	7757-83-7		
Water	7732-18-5	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: Use the proper respirator in areas where the chemical exposure is unknown or above the OSHA PEL or ACGIH TLV. 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.

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear, yellow to amber liquid
Odor	Distinct
pH@25°C	11.5-13.99
Melting/Freezing Point	28-32°F
Flashpoint	Not flammable
Specific Gravity	1.13
Solubility	Complete @ 20°C
Auto-Ignition Temperature	Not Available
Decomposition Temperature	Not Available
VOC Content	% Volatile: ~55%(water)
Odor Threshold	Not Available
Boiling Range	100°C
Evaporation Point	SIMILAR TO WATER
Flammable Limits - Upper	Not Available
Flammable Limits - Lower	Not Available
Vapor Pressure	Not known
Vapor Density (Air=1)	SIMILAR TO WATER
Viscosity	10-20 cP @ 25°C

SECTION X - STABILITY AND REACTIVITY

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

Conditions to Avoid: Contact with incompatible materials.

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Hazardous Decomposition/Byproducts: Thermal decomposition products may include oxides of carbon, phosphorous, nitrogen and sulfur.

Hazardous Polymerization: Will not occur.

Polymerization Conditions to Avoid: None

Incompatibilities: Strong oxidizing agents, strong reducing agents, strong acids and certain metals

SECTION XI - TOXICOLOGICAL INFORMATION

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

Inhalation: Under normal conditions of use, no health effects are expected.

Eye Contact: Corrosive. Can cause permanent damage to the cornea, blindness

Skin Contact: Contact may cause mild stinging irritation including redness, burning and drying/cracking of the skin.

Ingestion: Causes corrosion, burns to mouth and esophagus, abdominal pain, chest pain, nausea, vomiting, diarrhea, seizures. Aspiration of the swallowed or vomited product can cause severe pulmonary complications.

Toxicity:

Component Name	LD50	LC50
Polymaleic Homopolymer	Oral LD50: 15000 mg/kg (rat)	LC50 = >2500 ppm 96 hours Rainbow trout
Polyacrylate Homopolymer		Fish- (96h) > 100 mg/l- L9Fish- (96h) > 100 mg/l
Potassium Hydroxide	LD50 Oral-rat- 273 mg/kg	LC50 - Gambusia affinis (Mosquito fish) - 80 mg/l - 96 h
Diphosphoric acid, potassium salt (1:4)	Dermal - rabbit - > 4,640 mg/kg, Oral-Rat->1000	Not Established
SODIUM SULFITE	Oral rat: 2610mg/kg	Inhalation rat: >5.5 mg/l 4 hr.
Water	Not Established	Not Established

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Reproductive Effects	Teratogenicity	Mutagenicity	Embryotoxicity	Sensitization to Product	Synergistic Products
Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

SECTION XII - ECOLOGICAL INFORMATION

Ecotoxicity: BLUEGILL: >500 MG/L, LC50, 48 HR FATHEAD MINNOW: >500 MG/L, LC50, 48 HR CERIODAPHNIA MAGNA: >200 MG/L, LC50, 48 HR

Mobility: Information not available.

Degradability: Expected to biodegrade.

BioAccumulation: Information not available.

SECTION XIII - WASTE DISPOSAL CONSIDERATIONS

Disposal instructions: Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazardous waste code: The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste (residues/unused products): Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

SECTION XIV - TRANSPORT INFORMATION

DOT SHIPPING INFORMATION

Proper Shipping Name: Corrosive liquid, basic, organic, n.o.s.

Contains: Potassium Hydroxide

Hazard Class and Label: 8

Identification Number: UN3265

Packaging Group: II

Other Shipping Info: Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code.

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:

Component Name	CAS #	% by wt.	RQ (lbs.)	TPQ (lbs.)
Polymaleic Homopolymer	110-16-7	3-5		

SARA TITLE III SECTION 311/312 HAZARD CATEGORIZATION:

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

SARA TITLE III SECTION 313 SUPPLIER INFORMATION:

Component Name	CAS #	% by wt.
Tetrapotassium Pyrophosphate	7320-34-5	5-8

CERCLA SECTION 102(a) HAZARDOUS SUBSTANCE:

Component Name	CAS #	% by wt.	RQ (lbs.)
Maleic acid	110-16-7	3-5	5000
Potassium Hydroxide	1310-58-3	12-18	1,000

CALIFORNIA PROPOSITION 65:

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

SECTION XVI - OTHER INFORMATION

HMIS Health:.....3

HMIS Flammability:0

HMIS Reactivity:.....0

Additional: Disclaimer: The information contained herein is accurate to the best of our knowledge. No warranty of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances.