



**1 Identification of the mixture and of the company/undertaking**

**1.1 Product identifier:**

Identification on the label/Trade name: 1-Hydroxyethylidene-1,1-Diphosphonic Acid/ TAUQUEST 2010  
 Additional identification: HEDP  
 Identification of the product: See section 3  
 Index Number: Not available  
 REACH registration No.: Not available

**1.2 Relevant identified uses of the mixture and uses advised against:**

**1.2.1 Identified uses:**

Used as Scale inhibitors and corrosion inhibitor in cooling water, boiler water and oilfield water treatment.

**1.2.2 Uses advised against:**

Not available.

**1.3 Details of the supplier of the safety data sheet:**

Supplier: TAU CHEMICALS INC  
 Address: 25511 BUDDER RD. STE. 1503. THE WOODLANDS, TX. 77380  
 Telephone: 281-825-5301  
 Fax: 832-592-9546

**1.4 Emergency telephone Number:**

+353 41 980 6916

**2 Hazards Identification**

**2.1 Classification of the mixture**

**2.1.1 Classification:**

The mixture is classified as following according to 1999/45/EC and REGULATION (EC) No 1272/2008:

REGULATION (EC) No 1272/2008	
Hazard classes/Hazard categories	Hazard statement
Met.Corr.1	H290
Acute Tox. 4	H302
Eye Dam. 1	H318
Skin Irrit. 2	H315

For full text of H- phrases: see section 2.2.

1999/45/EC	
Hazards characteristics	R-Phrases
Xn	R22
Xi	R41
C	R35

For full text of R- phrases: see section 16.

**2.1.2 The most important adverse effects**



**2.1.2.1 The most important adverse physicochemical effects:**

May be corrosive to metals.

**2.1.2.2 The most important adverse human health effects:**

Harmful if swallowed.  
Causes skin irritation.  
Causes serious eye damage.

**2.1.2.3 The most important adverse environmental effects:**

Not applicable.

**2.2 label elements**

**Hazard Pictograms:**



**Signal Word(S):**

Danger

**Hazard Statement:**

H290: May be corrosive to metals.  
H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H318 Causes serious eye damage.

**Precautionary Statement:**

P234: Keep only in original container.  
P264: Wash hands thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P390: Absorb spillage to prevent material damage.  
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
P330 Rinse mouth.  
P302+P352: IF ON SKIN: Wash with plenty of soap and water.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P310: Immediately call a POISON CENTER or doctor/physician.  
P321: Specific treatment  
P332+P313: If skin irritation occurs: Get medical advice / attention.  
P362: Take off contaminated clothing and wash before reuse.  
P406: Store in corrosive resistant/ container with a resistant inner liner.  
P501 Dispose of contents/container to state/local regulation.

**2.3 Other hazards**

Not available (PBT,vPvB, Substance is an endocrine disruptor etc.)

**3 Composition/information on ingredients**

**Substance/Mixture:** Mixture



Chemical Name	Registration No.	Index number.	CAS No.	EC No.	Concentration	Classification according to EU CLP 1272/2008
1-Hydroxyethylidene-1,1-Diphosphonic Acid	N/A	N/A	2809-21-4	220-552-8	58-62%	Met. Corr. 1; H290 Acute Tox. 4; H302 Eye Dam. 1; H318
Phosphonic acid	N/A	N/A	13598-36-2	237-066-7	1-2%	Acute Tox. 4 *; H302 Skin Corr. 1A; H314
Water	N/A	N/A	7732-18-5	231-791-2	34-38%	Not classified

Chemical Name	Registration No.	Index number.	CAS No.	EC No.	Concentration	Classification according to 67/548/EEC
1-Hydroxyethylidene-1,1-Diphosphonic Acid	N/A	N/A	2809-21-4	220-552-8	58-62%	Xn; R22 Xi; R41
Phosphonic acid	N/A	N/A	13598-36-2	237-066-7	1-2%	Xn; R22 C; R35
Water	N/A	N/A	7732-18-5	231-791-2	34-38%	Not classified

#### **4 First aid measures**

##### **4.1 Description of first aid measures:**

Seek medical advice in case of indisposition or accident

##### **4.1.1 In case of inhalation:**

Remove to fresh air, if necessary, give oxygen if necessary.

##### **4.1.2 In case of skin contact:**

Remove contaminated clothing. Wash thoroughly with water and soap. Seek medical advice.

##### **4.1.3 In case of eyes contact:**

Seek Immediate medical advice Wash thoroughly with plenty of water for at least 15 minutes and seek medical attention.

##### **4.1.4 In case of ingestion:**

Get medical attention. Do not induce vomiting without medical advice. If conscious, washout mouth and give water to drink.

##### **4.2 Most important symptoms and effects, both acute and delayed**

Causes serious eye irritation.

##### **4.3 Indication of any immediate medical attention and special treatment needed**

If skin irritation or rash occurs, get medical advice/attention.



**5.1 Extinguishing media:**

**Suitable extinguishing media:** This product would not be expected to burn unless all the water is boiled away. The remaining organics may be ignitable

**Unsuitable extinguishing media:** Not available.

**5.2 Special hazards arising from the substance or mixture**

Not available.

**5.3 Advice for fire-fighters:**

In case of fire, wear a full face positive-pressure self-contained breathing apparatus and protective suit.

**6 Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures:**

**6.1.1 For non-emergency personnel:**

Remove all sources of ignition. Ventilate area of leak or spill.

**6.1.2 For emergency responders:**

Wear appropriate personal protective equipment as specified in section 8.

**6.2 Environmental Precautions:**

Do not allow to enter drains, sewers or water systems. Inform neighbors.

**6.3 Methods for Containment and Cleaning up:**

Absorb on inert material. Small quantities are to be neutralized with lime and swept away with plenty of water.

**6.4 Reference to other sections:**

See Section 7 for information on safe handling.

See section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

**6.5 Additional information:**

Absorb on inert material. Small quantities are to be neutralized with lime and swept away with plenty of water.

**7 Handling and storage**

**7.1 Precautions for safe handling:**

Product is to be handled with care. Do not get in eyes, on skin or clothing. Do not take internally. Use with adequate ventilation. Do not breathe vapors/gases/dust. Keep the containers closed when not in use. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Ensure all containers are labelled.

**7.1.1 Protective measures:**

Avoid contact with eyes and with skin. Wash hands immediately after handling. Do not breathe fumes or spray.

**7.1.2 Advice on general occupational hygiene:**

Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

**7.2 Conditions for safe storage, including any incompatibilities:**

Store in suitable labelled containers. Keep containers dry and closed



**7.3 Specific end use(s):**

Not applicable.

**8 Exposure control/personal protection**

**8.1 Control parameters:**

**8.1.1 Occupational exposure limits:** Not listed.

**8.1.2 Additional exposure limits under the conditions of use:** Not available.

**8.1.3 DNEL/DMEL and PNEC-Values:** Not available.

**8.2 Exposure controls**

**8.2.1 Appropriate engineering controls:**

In general, dilution ventilation is a satisfactory health hazard control for this substance. However, if conditions of use create discomfort to the worker, a local exhaust system should be considered.

**8.2.2 Individual protection measures, such as personal protective equipment :**

Eye/face protection           Wear chemical splash goggles.

Hand protection               Wear protective chemicals resistant gloves

Body protection               Wear standard protective clothing.

Respiratory protection       Respiratory protection is not normally needed.  
If significant mists, vapors or aerosols are generated an approved respirator is recommended.  
An organic vapor/acid gas cartridge with dust/mist prefilter may be used.

Thermal hazards               Wear suitable protective clothing to prevent heat.

**8.2.3 Environmental exposure controls:**

Avoid disposing into drainage/sewer system or directly into the aquatic environment. Handling according to local regulations, Federal and official regulations.

**9 Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

Appearance:	Liquid
Color:	Colorless to pale yellow
Odor:	Characteristic odor
Odor threshold:	Not available
pH-value: ( 10 g/l)	2.0 max
Freezing point:	< -25°C
Boiling point/range (°C) :	Not applicable
Flash point (°C) :	None
Evaporation rate:	Not applicable
Flammability (solid, gas);	Not flammable
Ignition temperature :	Not applicable
Upper/lower flammability/explosive limits:	Not determined
Vapor pressure (20°C) :	Not applicable
Vapor density:	Not applicable
Relative Density (25°C):	Not applicable
Density at 20°C:	1.43 - 1.46 g/ml
Water solubility (g/l) at 20°C :	miscible
n-Octanol/Water (log Po/w) :	Not determined



Ignition temp. (stable, gaseous):	> 500°C
Decomposition temperature:	Not available
Viscosity, dynamic (mPa s) :	Not determined
Explosive properties:	Not determined
Oxidizing properties:	Not applicable

**9.2. Other information:**

Fat solubility(solvent-oil to be specified) etc.:	Not available
Surface tension:	Not available
Dissociation constant in water( pKa):	Not available
Oxidation-reduction Potential:	Not available

**10 Stability and reactivity**

**10.1 Reactivity:**

The substance is stable under normal storage and handling conditions.

**10.2 Chemical stability:**

Under normal conditions, the product is stable. No hazardous reaction when handled and stored according to provisions. Hazardous reactions are not known.

**10.3 Possibility of hazardous reactions:**

Under normal conditions, not hazardous reactions will occur.

**10.4 Conditions to avoid:**

Heating, open flames, sources of ignition. Avoid contact with acid non-resistant materials/containers.

**10.5 Incompatible materials:**

Avoid alkaline solutions - exothermal neutralization may occur. Reacts with various metals with liberation of hydrogen, which is flammable.

**10.6 Hazardous decomposition products:**

Oxides of carbon, oxides of nitrogen, oxides of phosphorus.

**11 Toxicological information**

**11.1 Toxic kinetics, metabolism and distribution**

<b>Non-human toxicological data:</b>	Not available
<b>Method:</b>	Not available
<b>Doses:</b>	Not available
<b>Routes of administration:</b>	Not available
<b>Results:</b>	Not available
<b>Absorption:</b>	Not available
<b>Distribution:</b>	Not available



**Metabolism:** Not available

**Excretion:** Not available

**11.2 Information on toxicological effects**

**Acute toxicity:**

LD50( Oral, Rat): 3200 mg/kg

LD50(Skin, Rabbit): Not available

LD50(Inhalation, Rat): 3000 mg/kg

**Skin corrosion/irritation:** Not available

**Serious eye damage/irritation:** Not available

**Respiratory or skin sensitization:** This product is not expected to be a sensitizer.

**Germ cell mutagenicity:** Not classified

**Carcinogenicity:** None of the substances in this product are listed as carcinogens by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP) or the American Conference of Governmental Industrial Hygienists (ACGIH).

**reproductive toxicity:** Not classified

**STOT- single exposure:** Not classified

**STOT-repeated exposure:** Not classified

**Aspiration hazard:** Not classified

**12 Ecological information**

**Toxicity:**

<i>Acute toxicity</i>		<i>Time</i>	<i>Species</i>	<i>Method</i>	<i>Evaluation</i>	<i>Remarks</i>
LC50	350 mg/L min	96h	Rainbow Trout	N/A	N/A	N/A
LC50	292 mg/L	48h	Daphnia magna	N/A	N/A	N/A

**Persistence and degradability:** Not available

**Bio accumulative potential:** Not available.

**Mobility in soil:** Not applicable.

**Results of PBT&vPvB assessment:** Not applicable.

**Other adverse effects:** Must not reach sewage water or drainage ditch undiluted or neutralized  
When used for its intended purpose this product should not cause adverse effects in the environment

**13 Disposal considerations**

**13.1 Waste treatment methods**

Hazardous wastes must be transported by a licensed hazardous waste transporter and disposed of or treated in a properly licensed hazardous waste treatment, storage, and disposal or recycling facility. Consult local, state, and federal regulations for specific requirements.

**13.2 Product / Packaging disposal:**

Separate disposal according to local regulations

Convey to recycling plant





<b>14 Transport information</b>			
	<i>Land transport (ADR/RID)</i>	<i>Sea transport (IMDG)</i>	<i>Air transport (ICAO/IATA)</i>
<b>UN-Number:</b>	UN3265	UN3265	UN3265
<b>UN Proper shipping name:</b>	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
<b>Transport hazard Class:</b>	8	8	8
<b>Packaging group:</b>	II	II	II
<b>Environmental hazards:</b>	Not regulated	Not regulated	Not regulated
<b>Special precautions for user:</b>	See section 2.2	See section 2.2	See section 2.2
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	IBC02	IBC02	IBC02

**15 Regulation information**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Relevant information regarding authorization:** Not applicable.

**Relevant information regarding restriction:** Not applicable.

**Other EU regulations:** Employment restrictions concerning young person must be observed. For use only by technically qualified individuals.

**Other National regulations:** Not applicable.

**Chemical Safety Assessment has been carried out?** YES  NO

**16 Other information**

**16.1 Indication of changes** Version 1.1 Amended by EU No 453/2010

**16.2 Relevant R- phrases (number and full text):**

- R22: Harmful if swallowed.
- R41: Risk of serious damage to the eyes.
- R35: Causes severe burns.

**16.3 Training instructions:**

Not applicable.

**16.4 Further information:**

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

**16.5 Notice to reader:**

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to





Tau Chemicals Inc



such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if we has been advised of the possibility of such damages.