

1. Product and Company Identification

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Product Name

HEDP 60%

Part Number

RXSOL-81-8160-250

Company Details:

RX MARINE INTERNATIONAL

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2. Composition / Information on ingredients

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Name of Substance	Cas Number
1-Hydroxyethylidene-1,1-Diphosphonic Acid	2809-21-4

3. Hazards Identification

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Signal Word

Hazard Statements

Precautionary statements - prevention

Precautionary statements - response

Warning

H290: May be corrosive to metals.

H302: Harmful if swallowed.

H314: Causes severe skin burns and eye damage.

H401: Toxic to aquatic life.

P234: Keep only in original container.

P260: Do not breathe.

P264: Wash hands thoroughly after handling.

P280: :Wear protective gloves/eye protection/face protection

P312: Call a POISON CENTER or doctor/physician if you feel unwell.

P301+P330+P331: IF SWALLOWED: rinse mouth. Do not induce vomiting.

P303+P361+P353: IF ON SKIN (or hair): Remove/Take off contaminated clothing. Rinse skin with water/shower.

P304+P340: IF INHALED: Remove victim to fresh air and keep breathing.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P363: Wash contaminated clothing before reuse.

P404: Store in a closed container.

P405: Store locked up.

P390: Absorb spillage to prevent material damage.

P501: Dispose of contents/container through a waste management authority or government.

Immediately call a POISON CENTER or doctor/physician if you feel unwell.

4. First Aid Measures

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Skin Contact	Immediately flush with plenty of water for at least 15 minutes. Remove material from skin and clothing. Get medical attention. Immediate medical attention is not required.
Eye Contact	Rinse immediately with plenty of water, also under the eyelids. If contact with eyes, rinse immediately with plenty of water. Get medical attention.
Inhalation:	Remove patient to fresh air. If not breathing, give artificial respiration. Give oxygen. Immediate medical attention is not required.
Ingestion:	Do not induce vomiting. Get medical attention immediately. Do not give anything to an unconscious person.
Most important symptoms/effects	Treat symptomatically based on individual reactions of product. Remove and handling of clothing & shoes from the individual is recommended. (Specialized Equipment) for first-aid is recommended.
Notes to Physician	Treat symptomatically

5. Fire-fighting Measures

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Flammability of the Product	Non Flammable.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical extinguishers. Do not expose to fire with water spray.
Unsuitable extinguishing media	No information available
Flash Point	Not Available
Autoignition Temperature	Not Available
Explosion Limits Upper	Not Available
Explosion Limits Lower	Not Available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available
Specific Hazards Arising from the Chemical	No information available
Hazardous Combustion Products	Carbon monoxide (CO) Carbon dioxide (CO ₂) Nitrogen oxides (NO _x)
Protective Equipment and Precautions for Firefighters	Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and fire fighting clothing (includes fire fighting helmet, coat, pants, gloves, and boots). Please note: Structural fire fighters uniform will not provide adequate protection. Clear fire area of all non-emergency personnel. Stay upwind. Move fire exposed containers from fire area if possible. Use fire fighting water to reach waterways, drains or sewers. Stop fire if possible.
Further Information	

6. Accidental Release Measures

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Small Spillage	Dilute with water and mop up, or absorb with an inert dry material. Collect residue in a disposal container. If necessary: Neutralize the residue with a weak acid solution by spreading water on the contaminated surface and mop up. Dispose of residue according to authority requirements.
Personal Protection	Use personal protective equipment. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Remove contaminated clothing and shoes. Take measures against static discharges.

Environmental Precaution

Environmental Precautions Should not be released into water or sanitary sewer system.

Methods and materials for containment and cleaning

Soak up with inert absorbent material. Keep in suitable sources of ignition. Use spark-proof tools and explosion

7. Handling and Storage

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Handling

Ensure an eye bath and safety shower are available and hygiene practices and recommended procedures. Wash thoroughly after handling to reduce human contact with the materials

Storage

Store in a cool, dry, well-ventilated area. Keep containers regularly for deficiencies such as damage or leaks. Protect from incompatible materials as listed in section 10. This is a Dangerous Goods Class 8 (corrosive) according to Dangerous Goods By Road and Rail. Storage class: 8B = 1

Hygiene measures

Immediately change contaminated clothing. Apply preventive measures after working with substance.

8. Exposure controls and personal protection

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Engineering Control

A system of local and/or general exhaust is recommended where possible. Local exhaust ventilation is generally preferred to contain the contaminant at its source, preventing dispersion of it into the work area. When utilizing this material should be equipped with an eye protection and mechanical handling to reduce human contact with the material.

Personal Protection

Eye/face Protection : Wear appropriate protective equipment as described by OSHA's eye and face protection regulation and European Standard EN166.

Skin and body protection : Wear appropriate protective clothing to prevent exposure. Long sleeved clothing. Flame retardant antistatic

Hygiene Measures

Respiratory Protection : Follow the OSHA respirator requirements and European Standard EN 149. Use a NIOSH/MSHA approved respirator if exposure limits are exceeded or if irritation occurs. Handle in accordance with good industrial hygiene and safety practices.

Exposure Limits

No occupational exposure limits established.



Gloves Suit

9. Physical and chemical properties

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Form

Liquid

Colour

Colourless to light yellow

Odour	No Information Available
Odor Threshold	No Information Available
pH	1.5 - 2 10% Solution
Melting Point	-25 °C
Boiling Point	108 °C @ 760 mmHg
Flash Point	Not Applicable
Evaporation Rate	Not Applicable
Flammability (solid, gas)	Not Applicable
Vapour pressure	No Data Available
Vapour Density	No Data Available
Secific Gravity	1.42 - 1.46
Decomposition Temperature	No Data Available
Partition coefficient	No data available
Autoignition Temperature	No Data Available
Solubility	Soluble
Viscosity	No Data Available
Molecular Formula	C2H8O7P2
Molecular Weight	206.02

10. Stability and reactivity

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Recativity Hazard	May be corrosive to Metal
Stability	Product is stable.
Possibility of hazardous reactions	No known hazardous reactions.
Conditions to avoid	Do not expose to extreme temperatures.
Incompatible material	Incompatible with Strong oxidizing agents, Strong bases, Aluminum, mild steel, many other metals, and sources of ignition.
Hazardous Decomposition Products	Product may emit carbon monoxide, carbon dioxide, phosphorus oxides and phosphines.
Hazardous Polymerization	Hazardous polymerization does not occur. May react with alkalis and many metals. May be corrosive to metals

11. Toxicological information

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Acute toxicity	Oral LD50 Rat: 2400mg/Kg Skin LD50 Rabbit: 7940mg/Kg
Acute dermal toxicity	LD 50, 7,940 mg/Kg Germ cell mutagenicity: No genetic effects were observed in standard tests using bacterial and animal cells. Carcinogenicity: Not a carcinogen Reproductive toxicity: No birth defects were noted in rats given the active ingredient orally during pregnancy. STOT-Single exposure: Causes burning of the nose and throat, Causes digestive tract injury if swallowed, Inhalation may result in nausea, vomiting and diarrhea. STOT-repeated exposure: Rat & dog, diet, subchronic: Minor effects (less than lesions) were present in some animals during the observation period.
Skin corrosion	Skin irritation Causes severe burns.
Toxic Effects on Humans	Hazardous in case of skin contact (irritant), of inhalation. Slightly hazardous in case of ingestion.
Special Remarks on Chronic Effects on Humans	Material is destructive to tissue of the mucous membranes and upper respiratory tract.
Further information After absorption:	The substance should be handled with particular care.

12. Ecological information

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Toxicity to Fish	Fish: 96 h, LC50 Rainbow trout (<i>Oncorhynchus mykiss</i>) 368 mg/l 96 h, LC50 Bluegill sunfish (<i>Lepomis macrochirus</i>) 8 mg/l Algae: 96 h, EC50 Algae (<i>Selenastrum capricornutum</i>) 3 mg/l. Algal growth inhibition is due to ability of this product to form materials not to toxicity per se.
COD and BOD 5	Not Available
Products of Biodegradation:	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Mobility in soil	Mobility in soil: Accidental spillage may lead to penetration in the soil and groundwater. However, there is no evidence to suggest that this product will cause adverse ecological effects
Results of PBT and vPvB assessment	Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.
Other adverse effects	Additional ecological information Forms corrosive mixtures with water even if diluted. Harmful effect due to pH shift. Discharge into the environment may be harmful to aquatic life.

13. Disposal considerations

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Waste treatment Method	Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original packaging. Do not mix with other waste. Handle uncleaned containers like the product itself
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14. Transport information

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DOT

UN Number	UN3265
Proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Hazard Class	3
Subsidiary Hazard Class	8
Packing group	III

TDG

UN Number	UN3265
Proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Hazard Class	3
Subsidiary Hazard Class	8
Packing group	III

IATA

UN Number	UN3265
Proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Hazard Class	3
Subsidiary Hazard Class	8
Packing group	III

IMDG/IMO

UN Number	UN3265
Proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Hazard Class	3
Subsidiary Hazard Class	8
Packing group	III

15. Regulatory information

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Federal and State Regulation	U.S. TSCA, Canadian DSL, EU EINECS, Japanese ENCS, Australian AICS, Korean, Chinese, Philippine PICCS
Other Regulation	One or more of this product's components is considered to be an impurity and is not subject to the New Substance Regulation under the Canadian Environmental Protection Act (CEPA).
WHMIS (Canada)	D2(B) ☐ Materials Causing Other Toxic Effects E ☐ Corrosion Material
DSCL (EEC)	

HMIS

Health Hazard	: 3
Fire Hazard	: 0
Reactivity	: 2
Personal Protection	: H

Fire :

Health Hazard	: 3
Fire Hazard	: 0
Reactivity	: 2
Specific Hazard	: ..

16. Other information

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Other Information

The information above is believed to be accurate and available to us. However, we make no warranty of accuracy, implied, with respect to such information, and we should make their own investigations to determine its accuracy for particular purposes. In no event shall we be liable for any damages, for lost profits or any special, indirect, incidental, or consequential damages arising, even if **Rx Marine International** has been advised of the possibility of such damages.

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