



**MSDS - HD Cooling System Cleaner**

**I. IDENTIFICATION AND EMERGENCY INFORMATION** 12/1/10

<b>PRODUCT NAME</b>	HDCSC	<b>MANUFACTURER/Supplier:</b>	Orison Marketing
<b>PRODUCT DESCRIPTION</b>	Cooling System Cleaner		P.O. Box 5198
			Abilene, TX 79608
<b>APPEARANCE</b>	Pale Yellow Liquid		Tel: (325) 690-1135
<b>ODOR</b>	Ammonia-like		Fax: (325) 690-0569

**II. COMPONENTS AND HAZARD INFORMATION**

CHEMICAL COMPONENTS	CAS NUMBER	WEIGHT %	OSHA PEL	ACGIH TLV		
Diammonium Citrate	3012-65-5	8 - 10	NE	NE		
Surfactant	26027-38-3	3 - 10	ND	ND		
Water		Balance	NE	NE		

**III. TYPICAL PHYSICAL PROPERTIES**

<b>BOILING POINT</b>	>212	<b>SPECIFIC GRAVITY (water=1)</b>	1.05 - 1.06
<b>VAPOR PRESSURE (mm Hg@20C)</b>	ND		
<b>VAPOR DENSITY (air=1)</b>	ND	<b>EVAPORATION RATE (ether=1)</b>	<1
<b>SOLUBILITY IN WATER</b>	Complete	<b>pH DATA (Neat)</b>	6 - 7
<b>APPEARANCE</b>	Pale Yellow	<b>VISCOSITY @ 40C, cSt.</b>	ND
<b>ODOR</b>	Ammonia Like	<b>FREEZING POINT</b>	0C (32F)

**IV. FIRE AND EXPLOSION HAZARD INFORMATION**

<b>FLASH POINT (METHOD)</b>	<b>FLAMMABILITY LIMITS (% BY VOLUME IN AIR)</b>	<b>AUTOIGNITION TEMPERATURE</b>
None Known	LEL : NA                      UEL : NA	NA
<b>FIRE AND EXPLOSION HAZARDS</b>	Avoid breathing decomposition products.	
<b>EXTINGUISHING MEDIA</b>	Foam, Dry Chemical, CO2, Water Fog	
<b>SPECIAL FIREFIGHTING PROCEDURES</b>	Fire fighters wear protective clothing and NIOSH approved respirator.	

**V. REACTIVITY INFORMATION**

<b>STABILITY (CONDITIONS TO AVOID)</b>	Stable under normal conditions.		
<b>CHEMICAL INCOMPATIBILITY:</b>	Strong oxidizing agents and strong acids.		
<b>HAZARDOUS DECOMPOSITION PRODUCTS</b>	Oxides of carbon.		
<b>HAZARDOUS POLYMERIZATION</b>	Will not occur.		
<b>CORROSIVE TO METAL</b>	No	<b>OXIDIZER:</b>	No

**HAZARDOUS MATERIALS IDENTIFICATION SYSTEM**

HEALTH	1	FLAMMABILITY	0	REACTIVITY	0	SPECIAL	0
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<b>VI. HEALTH HAZARD AND FIRST AID INFORMATION</b>			
<b>ROUTES OF ENTRY</b>		<b>EFFECTS OF OVEREXPOSURE</b>	
<b>INHALATION</b>	None known at low temperature and low pressure.		
<b>EYE CONTACT</b>	May cause moderate irritation.		
<b>SKIN CONTACT</b>	Direct or prolonged contact may cause irritation and local redness.		
<b>INGESTION</b>	Moderately toxic. May cause painful sensations in abdomen.		
<b>EMERGENCY FIRST AID PROCEDURES</b>			
<b>INHALATION</b>	Move to fresh air, seek medical attention.		
<b>EYES</b>	Flush eyes with water for 15 minutes. Get medical attention if warranted.		
<b>SKIN</b>	Wash area with water, remove contaminated clothing, and launder before reuse. Get medical attention if warranted.		
<b>INGESTION</b>	DO NOT INDUCE VOMITTING. Get medical attention immediately. Never give an unconscious person anything to ingest.		
<b>VII. OCCUPATIONAL CONTROL PROCEDURES</b>			
<b>VENTILATION</b>	General room ventilation is satisfactory for use at low temperature. Provide local exhaust as necessary.		
<b>RESPIRATORY</b>	None required at low temperatures.		
<b>EYE PROTECTION</b>	Safety glasses or goggles are advisable where splashes to eye may occur.		
<b>SKIN PROTECTION</b>	Latex gloves are advisable.		
<b>HANDLING AND STORAGE</b>	Keep containers closed when not in use.		
<b>VIII. ENVIRONMENTAL CONTROL PROCEDURES</b>			
<b>SPILL AND LEAK PROCEDURES</b>	Dike area with absorbent to contain spill.		
<b>WASTE DISPOSAL METHODS</b>	Dispose of and conform to applicable federal, state and local regulations.		
<b>EPA SARA TITLE III INFORMATION</b>			
SECTION 313 CHEMICAL	CAS #	WEIGHT PERCENT	
None			
<b>IX. ADDITIONAL INFORMATION</b>			
WHILE THE INFORMATION AND RECOMMENDATIONS SET FORTH ON THIS DATA SHEET ARE BELIEVED TO BE ACCURATE AS OF THE PRESENT DATE, ORISON MAKES NO WARRANTY WITH RESPECT THERETO AND DISCLAIMS ALL LIABILITY FROM RELIANCE THEREON.			
<b>DATE PREPARED</b>	February 8, 2010	<b>REVISION DATE</b>	12/1/10
<b>EXPLANATION OF ABBREVIATIONS</b>	<b>NE=NOT ESTABLISHED</b> <b>AP=APPROXIMATE</b>	<b>ND=NOT DETERMINED</b> <b>NA=NOT APPLICABLE</b>	<b>TR=TRACE</b> <b>UK=UNKNOWN</b> <b>&gt;=GREATER THAN</b> <b>&lt;=LESS THAN</b>
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