

**MATERIAL SAFETY DATA SHEET**

PAGE 1

RESAT EGYPT WATER TREATMENT  
 3 AL-KHALEEG BUILDING AL-MARUTYA  
 AL-HARAM – FESSAL DIRECTION  
**PRODUCT NAME STEAMATE**

IDENTITY (As Used on Label and List)

**STEAMATE ( STEAMTIC)****Section I**

RESAT EGYPT WATER TREATMENT 3 AL-KHALEEG BUILDING AL-MARUTYA AL-HARAM – FESSAL DIRECTION	Emergency Telephone Number: (002) 0101 480 286 Office Phone No : (002)02 374 47 164
	Date Revised: Feb 3, 2009
D.O.T. Proper Shipping Name: Corrosive liquid, n.o.s.	
Technical class: Water treatment chemical	D.O.T. Hazard Class:8
Identification No:1760	Packing Group: II

**Section II - Hazard Ingredients/Identity Information**

Hazardous Components (Specific Chemical Identity; Common Name(s))	CAS NO.	OSHA PEL	Other Limits Recommended	%(optional)
NONE AS PER OSHA		NA		
Other Hazardous Components	CAS NO.	OSHA PEL	Other Limits Recommended	%(optional)
Cyclohexyl amine	108-91-8	NA	Work safe 10 ppm	H
Morpholine	110-91-8	NA	Work safe 10 ppm	M

LEGEND: L:&lt;1 %, M = 1-10%, H= &gt;10%

SPECIAL HAZARD DESIGNATIONS KEY: 0-MINIMAL, 1-SLIGHT, 2-MODERATE,3-SERIOUS,4-SEVERE

Health	Flammability	Reactivity	Protective equipment
2	2	0	HAND GLOVES/GOGGLES

**Section III - Physical/Chemical Characteristics**

Boiling Point :>100 centigrade	Specific Gravity (H2O = 1):0.98-1.05
Vapor Pressure (mm Hg.) :not detected	Melting Point : water solution,
Vapor Density (AIR = 1) : not detected	Evaporation Rate (Butyl Acetate = 1) :NE pH: >11
Solubility in Water : complete	
Appearance and Odor:Clear colorless yellow liquid with typical amine odor	

NR: NOT REQUIRED, NE: NOT ESTABLISHED, NA: NOT APPLICABLE

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## Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used) Not determined. Aqueous solution.	Flammable Limits	None Established	None Established
Extinguishing Media: Water spray, Water fog, CO2, Dry Chemical ,			
Special Fire Fighting Procedures: Fire fighters should wear chemical protective clothing and positive Self-contained breathing apparatus is recommended for confined areas.			
Unusual Fire and Explosion Hazards: none known			

## Section V - Reactivity Data

Stability: Stable	Conditions to Avoid: the material neutralizes with acids forming amine salts., Avoid contact with Concentrated acids and strong oxidizers.
Incompatibility (Materials to Avoid):, Concentrated acids and oxidizing agents.	
Hazardous Decomposition or Byproducts: Toxic levels of Ammonia. And oxides of carbon and nitrogen will be released if water is evaporated by the heat of a fire and material is burned.	
Hazardous Polymerization: Will Not Occur	Conditions to Avoid None known

## Section VI - Health Hazard Data

Route(s) of Entry:	Inhalation: X	Skin ,Eyes: X	Ingestion: X
Health Hazards (Acute) Eyes: Causes severe irritation or burns and intense pain. May cause irreversible damage or blindness. Skin: Prolonged contact may cause burns , blister formation and possible tissue destruction. Inhalation: Causes nausea and vomiting. Vapors or mist in poorly ventilated confined spaces, are irritating and cause nasal discharge, coughing, and discomfort in nose and throat. Prolonged or repeated over exposure may result in the absorption of potentially harmful amount of material. Ingestion: Causes burning of mouth, throat and stomach with abdominal and chest pain. May cause nausea, vomiting, weakness and collapse.			
Health Hazard (chronic) Repeated skin contact may cause a persistent irritation or dermatitis. repeated inhalation may cause lung damage, and respiratory disease such as asthma, bronchitis. This product contains amines which may produce temporary and reversible hazy or blurred vision. Symptoms disappear when exposure is terminated.			

Emergency and First Aid Procedures: Eyes: Immediately flush with clear water for 15 minutes Hold eyelids apart while flushing to rinse entire surface of eye. Get medical attention immediately. Skin: Wash with soap and water. get medical attention if severe redness or burns are caused. Inhalation: Remove victim to Fresh air. Get medical attention if symptoms persists. If not breathing or in respiratory distress, clear persons airway and start artificial respiration. Consult physician and give supplemental Oxygen. Ingestion: drink two glasses of water but do not induce vomiting. If vomiting occurs give fluids again. Get medical attention immediately.
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## Section VII - Precautions for Safe Handling and Use

### Steps to Be Taken in Case Material is Released or Spilled

Eliminate all ignition sources .Ventilate area.Barricade the immediate hazard area.Avoid breathing vapor. Avoid contact with skin.eyes or clothing. Pressure demand air supplied respirators should be always worn, when the airborne concentration of the contaminant or oxygen is unknown. Small spills may be flushed with copious quantities of water, preferably to sanitary sewer or waste treatment facility. Larger spills should be diked to prevent run off and then pumped in to suitable container for disposal.

### Precautions to Be taken in Handling and Storing:

Store in a cool dry place. Keep containers tightly closed when not in use. Keep away from heat, sparks ,flame and other source of ignition.

### Other Precautions:

This product has been designed for use in specific types of boiler water and should be used only in accordance with the instructions provided by the company.

This products materials compound approved of FOOD AND DRUG ADMINISTRATION (FDA) under 21 CFR 173.310 Boiler water Additives.

### Waste disposal:

Small quantities may be diluted with water and flushed to sanitary sewer. The preferred method for larger quantities is Incineration. Obey all federal, state or local regulations.

## Section VIII - Control Measures

Respiratory Protection (Specify Type) airborne concentrations should be kept to lowest levels possible. Use appropriate air purifying system to keep concentration in air below exposure limit of the product. Air supplied respirators should always be worn if airborne concentration is not known or is above exposure limit.

Ventilation: Adequate to meet occupational exposure limit.

Protective Gloves resistant to Chemicals.

Eye Protection: Avoid eye contact. Chemical type goggles with face shield must be worn.

Other Protective Clothing or Equipment: when handling large quantities, impervious suits gloves and rubber boots must be worn. Eyewash station and safety shower in area of use. workers should wear rubber apron and boots.

Exposure limit for the product: 30 ppm based on cyclohexylamine

The data contained in this Material Safety Data Sheet has been prepared based upon an evaluation of the ingredients contained in the product, their concentration in the product and potential interactions. The information is offered in good faith and is believed to be accurate. It is furnished to the customer who is urged to study it carefully to become aware of hazards, if any, in the storage, handling, use and disposal of the product; and to insure his employees are properly informed and advised of all safety precautions required.