



DESCRIPTION

HYDRAZINE is a liquid compound containing catalyzed hydrazine for rapid removal of free oxygen in boiler systems.

APPLICATION

HYDRAZINE is used for rapid removal of oxygen in boiler feed water and condensate systems. *HYDRAZINE* further prevents corrosion caused by oxygen, by converting iron oxide to stable magnetite. *HYDRAZINE* may be used in all types of boilers. But it is particularly suited for use in HP system where it is more prone to oxygen corrosion.

This passivation process is also used for pretreatment of new boiler plants and for protection of idle or lay-up boilers.

DIRECTIONS FOR USE

HYDRAZINE must be added continuously by means of a dosing pump at the deareator for HP system. For LP system it can be added into the feed line. *HYDRAZINE* can be fed straight from the container or in any convenient dilution.

The amount of *HYDRAZINE* required will depend on the amount of oxygen in the feed water. The initial dose for un-treated system is 100 ml per ton of water. Maintenance dosage will be adjusted in accordance with the result obtained from the hydrazine test. Generally the daily dosage is 1 lt. for every 10 tons of water capacity.

CONTROL LIMIT

HYDRAZINE : 0.05 - 0.1 PPM

Analysis is carried out using *UNIMARINE BOILER WATER TEST SET*

NATURE OF SPECIAL RISKS AND SAFETY ADVICE

In accordance with the latest EEC Council directives this product is subjected to:

R20/21/22	: Harmful by inhalation, in contact with skin and if swallowed
R34	: Causes burns
R43	: May cause irritation by skin contact
R45	: May cause cancer
S2	: Keep out of reach of children
S36/37/39	: Wear suitable protective clothing, gloves and eye / face protection
S45	: In case of accident or if you feel unwell, seek medical advice immediately (show the label if possible)
S53	: Avoid exposure, obtain special instructions before use

HYDRAZINE

Oxygen scavenger

- Scavenges oxygen and prevents corrosion
- Does not increase dissolved solids
- Converts iron oxide to magnetite

PRODUCT CHARACTERISTICS

Appearance:	clear liquid, slightly yellow
Corrosive action:	corrosive to aluminum and copper
Specific gravity:	1 (20°C)
pH 1% solution:	9
Flash point:	none
IMO Class:	8 / II
UN Number:	2030
ADR:	8.44b)

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MATERIAL SAFETY DATA SHEET
UNICLEAN BELGIUM NV

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCTNAME : HYDRAZINE
PRODUCTTYPE : Boiler water treatment

COMPANY : UNICLEAN NV
Schurhovenveld 3856
B- 3800 Sint-Truiden
Belgium
Phone: +(32) 11 70 73 60
Fax :+(32) 11 70 73 61

UNISERVICE MEDITERRANEAN
Hadjikyriakou Avenue 27-31
185 38 Piraeus
Greece
Phone +(30) -145 38 418, Fax: +(30) - 145 38 582

2. COMPOSITION/INFORMATION ON INGREDIENTS

1. Hydrazine 15 % CASnr: 7803-57-8

3. HAZARDS IDENTIFICATION

HUMAN HEALTH : Corrosive to eyes, skin and respiratory system.
Harmful by inhalation, in contact with skin and if swallowed.

RISK CLASSIFICATION : Corrosive R-34 Causes burns
R-20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R-43 May cause sensitization by skin contact
R-45 May cause cancer.

ENVIRONMENTAL HAZARDS : Do not let down into the environment without thinning and neutralisation.

4. FIRST AID MEASURES

INHALATION : Remove to fresh air. Keep the patient calm. Transport to a hospital.

SKIN : Take of contaminated clothing immediately. Wash the skin with large amounts of water. Consult a physician.

EYE : Flush with large amounts of water. Seek medical advice.

INGESTION : Wash the mouth with water. Transport to a hospital.

5. FIRE FIGHTING MEASURES

FLASH POINT : The product does not burn.

SPECIFIC HAZARDS : See under 9

EXTINGHUISING MEDIA : No limitations.

6. ACCIDENTAL RELEASE MEASURES

- CLEANING UP** : Absorb spills in sand, earth or other inert material. Dispose of the material according to local regulations. Scrub contaminated surfaces with detergent solution.
- ENVIRONMENTAL PRECAUTION** : Prevent contamination of soil and water.
Do not let down into the environment without thinning and neutralisation.
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7. HANDLING AND STORAGE

- HANDLING** : Do not breathe vapours or mists. Use in well ventilated areas. Avoid contact with skin.
- STORAGE** : Keep in closed containers, in a dry place and frost free. Avoid contact with acids, oxidising agent and light metals (aluminium and zinc)
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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- MAK** : 0.1 mg/m³.
- PREVENTIVE MEASURES** : Clean contaminated clothing before re-use. Use in well ventilated areas.
- PERSONAL PROTECTIVE EQUIPMENT** : Wear suitable protective clothing, eye protection and chemical resistant gloves. Wear breathing protection when spraying the product.
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9. PHYSICAL AND CHEMICAL PROPERTIES

- APPEARANCE** : Clear liquid, slightly yellow
- ODOUR** : Typical
- FLASH POINT** : None
- pH** : 12
- BOILING POINT** : 100 °C
- DENSITY (20°C)** : 1.0
- SOLUBILITY** : Miscible with water, not miscible with organic solvents
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10. STABILITY AND REACTIVITY

- STABILITY** : Stable min 2 years at ambient temperature if stored in closed container,
- REACTIVITY** : Avoid contact with acids and oxidising agents.
- HAZARDOUS DECOMPOSITION PRODUCTS** : Thermal decomposition may yield the following:
Hydrogen.
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11. TOXICOLOGICAL INFORMATION

Information given is based on a knowledge of the constituents and the toxicology of similar substances.

ORAL	:	Corrosive, stomach ache, diarrhoea, problems with the hart, dizziness, vomiting
SKIN CONTACT	:	Corrosive, redness, pain, burns.
EYE CONTACT	:	Corrosive, loss of sight, pain.
INHALATION	:	Corrosive, throat ache, coughing, short of breath, dizziness, vomiting

12 ECOLOGICAL INFORMATION

Information given is based on a knowledge of the constituents and the toxicology of similar substances.

Raise of pH can disturb the biological equilibrium in the aquatic environment. Do not let down into the environment without thinning and neutralisation

13 DISPOSAL CONSIDERATIONS

Dispose of according to local regulations. Contaminated product is to be regarded as chemical waste.

14 TRANSPORT INFORMATION

UN-number	:	2030
ADR	:	8.44b)
IMO	:	8/II

15 REGULATORY INFORMATION

EG	:	
SYMBOL	:	Corrosive
R-PHRASES	:	20/21/22, 34,43, 45
S-PHRASES	:	45,53

16 OTHER INFORMATION

The information contained herein relates only to the specific material identified. Uniservice believes that such information is accurate and reliable as of the date of this material safety data sheet, but no representation, guarantee or warranty, express or implied, is made as to the accuracy, reliability, or completeness of the information. Uniservice urges persons receiving this information to make their own determination as to the information's suitability and completeness for their particular application

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