



SAFETY DATA SHEET

PETROMEEN 4H604

1 IDENTIFICATION OF PREPARATION AND OF COMPANY

1.1 Identification of the substance or preparation

Product : PETROMEEN 4H604

1.2 Use of substance/preparation

Neutralising corrosion inhibitor

1.3 Company/undertaking identification

GE Water & Process Technologies France SNC

Allée du 1er Mai

Parc d'Activités de Paris-Est

F-77183 Croissy Beaubourg

Tel.: 01 60 37 59 60

e-mail : emea.productstewardship@ge.com

1.4 Emergency telephone

- GE Betz (24h/24h) : 01 60 37 00 00

- Official advisory body

ORFILA : 01 45 42 59 59

2 HAZARDS IDENTIFICATION

Important hazards

- Health/physical hazard Causes burns.
Harmful in contact with skin and if swallowed.
May cause sensitisation by inhalation and skin contact.
- Symptoms of exposure Inhalation may cause eye, nose, throat and lung irritation and possible respiratory sensitisation or asthma.
Skin contact may cause moderate irritation to severe burns and sensitisation or allergic response.
- Environmental hazards The product is not classified as dangerous for the environment.

3 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical description

Aqueous solution of amines

Hazardous component(s)	EINECS/ELINCS #	CAS #	Conc.
1,2-Diaminoethane (Ethylene diamine) C, 10-21/22-34-42/43	203-468-6	107-15-3	10 - 25 %
Ethanolamine C, R20/21/22-34	205-483-3	141-43-5	10 - 25 %



SAFETY DATA SHEET

PETROMEEN 4H604

Remarks

The classification of the above substance(s) is given, including the symbol letters and R phrases which are assigned in accordance with their physicochemical, health and environmental hazards. Please refer to section 16 (Relevant R phrases, used in sections 2 and 3 of this SDS), where the full text of each relevant R phrase is listed.

4 FIRST AID MEASURES

Skin contact	Remove contaminated clothing. Wash immediately with plenty of water. Seek medical attention.
Eye contact	Flush immediately with plenty of running water. Continue rinsing for at least 10 minutes. Keep eyelids apart. Seek medical attention.
Inhalation	Remove victim to fresh air and allow to rest. Seek medical attention.
Ingestion	Rinse mouth with water. Immediately give 1-2 glasses of water, if victim is fully conscious. Do NOT induce vomiting! Seek medical attention.

5 FIRE-FIGHTING MEASURES

Extinguishing Media

- Suitable Carbon dioxide, dry chemicals, foam, water spray (fog).

Special protective equipment for fire fighters Self contained breathing apparatus. (CEN : EN 137)
Protective clothing (CEN : EN 469)
Protective gloves (CEN : EN 659)
Helmet (CEN : EN 443)

Special exposure hazards Ammonia, oxides of carbon and nitrogen evolved in fire.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions Wear protective clothing, gloves and safety goggles.
Please refer also to section no. 8 'Exposure controls' for further information.

Environmental precautions Prevent from entering sewers or the immediate environment.
Accidental release of large quantities into the aquatic environment may harm aquatic organisms.

Methods for Cleaning Up

- on soil Absorb onto inert material and dispose of according to Special Waste Regulations.
Remove small spills with plenty of water.
Water contaminated with this product may be sent to a sanitary sewer treatment facility, or a permitted waste treatment facility, in accordance with any local agreements.

7 HANDLING AND STORAGE

7.1 Handling Alkaline.
Do not mix with acidic material.



SAFETY DATA SHEET

PETROMEEN 4H604

7.2 Storage Store containers closed when not in use.
Store in a well ventilated place.

7.3 Specific use(s) Only for professional and industrial users

Maximum storage stability (days) 20

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit values

- VME/VLE (INRS) 1,2-Diaminoethane (Ethylene diamine) : 10 ppm 25 mg/m³ (VME) - 15 ppm 35 mg/m³ (VLE)
Ethanalamine : 3 ppm 8 mg/m³ (VME) - néant (VLE)

Exposure controls

- Recommended engineering controls Adequate ventilation to maintain air contaminants below exposure limits.
Arrange for eye wash possibility.
- Respiratory protection In case of insufficient ventilation, use a breathing mask with filter type: A2-P2
CEN : EN 140; EN 141
- Hand protection Gauntlet type neoprene gloves (Protection against unintentional short-term contact)
CEN : EN 374-1/2/3; EN 420
- Eye protection Splash proof chemical goggles.
Face shield.
CEN : EN 166
- Skin protection Chemical resistant apron.
CEN : EN 340; EN 368; EN 369; EN 467
- Environmental exposure controls Prevent from entering in public sewers or the immediate environment.

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 General information

Appearance Liquid
Colour Colourless to yellow
Odour Amine

9.2 Important health, safety and environmental info

pH (concentrated product) 12,7
Flash point (Pensky/Martens) (°C) > 100
Density at 20°C (kg/m³) 1009
Solubility in water (% weight) Completely soluble
Viscosity at 20°C (mPas) 6
Relative vapour density (air=1) > 1
Evaporation rate (ether=1) < 1
Vapour pressure 18 mm Hg (21°C)

9.3 Other information

Melting point, (°C) - 21



SAFETY DATA SHEET

PETROMEEN 4H604

10 STABILITY AND REACTIVITY

- 10.1 Conditions to avoid** No special requirement.
- 10.2 Materials to avoid** Avoid contact with strong acids and oxidisers.
- 10.3 Hazardous decomposition products** Ammonia, oxides of carbon and nitrogen evolved in fire.

11 TOXICOLOGICAL INFORMATION

Mammalian Test Data

- Oral LD50, rat (mg/kg) > 3000 (estimated value)
- Dermal LD50, rabbit (mg/kg) > 2000 (estimated value)

Exposure hazard

- Inhalation Irritating to respiratory system.
May cause sensitisation.
- Skin contact Causes burns.
May cause sensitisation.
- Eye contact Causes burns.
- Ingestion Causes burns in mouth, throat and/or stomach.

12 ECOLOGICAL INFORMATION

Ecotoxicity

- Fathead minnow (mg/l) LC50 : 970 (Calculated data)
96 hour Acute Toxicity
- Bluegill sunfish (mg/l) LC100 : 1000
LC0 : 100
48 hour static screen
- Daphnia Magna (mg/l) LC100 : 500
LC0 : 100
48 hour static screen

Persistence and degradability

- COD (mgO2/g) 448 (calculated data)
- BOD 5 (mgO2/g) 133 (calculated data)
- BOD 28 (mgO2/g) 198 (calculated data)
- Closed Bottle Test (% Degradation in 28 days) 44 (calculated data)
- Zahn-Wellens Test (% Degradation in 28 days) 96 (calculated data)
- TOC (mg C/g) 123 (calculated data)

Summary

The product is not classified as dangerous for the environment.
The evaluation of environmental hazards is based on the concentration limits as set out in directive 1999/45/EC.



SAFETY DATA SHEET

PETROMEEN 4H604

13 DISPOSAL CONSIDERATIONS

Disposal of product	According to Special Waste Regulations. EWC (European Waste Code) recommendation : 16 03 05 16 Wastes not otherwise specified in the list. 16 03 Off-specification batches and unused products. 16 03 05 Organic wastes containing dangerous substances. Depending on the origin and state of the waste, other EWC numbers may be applicable too.
Disposal of packaging	According to Special Waste Regulations. EWC (European Waste Code) recommendation : 15 01 10 15 Waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified. 15 01 Packaging (including separately collected municipal packaging waste). 15 01 10 Packaging containing residues of or contaminated by dangerous substances. Depending on the origin and state of the waste, other EWC numbers may be applicable too.

14 TRANSPORT INFORMATION

Substance id.no. (SIN) (UN No.)	2735
Correct shipping name	Amines, liquid, corrosive, n.o.s.
- Contains	1,2-Diaminoethane (Ethylene diamine) mixture Ethanolamine mixture
Land transport	
- Transport hazard label	8 Corrosive
- RID/ADR classification	8
- Packaging group	II
Maritime transport	
- Transport hazard label	8 Corrosive
- IMO-IMDG class	8
- Packaging group	II
- EmS no.	F-A, S-B
- MFAG no.	See Emergency action guide. The treatment recommended in this Guide is specified in the appropriate tables and more comprehensive in the appropriate sections of the Appendices.
Air transport	
- Transport hazard label	8 Corrosive
- ICAO/IATA classification	8
Other information	TREMCARD 80GC7-II



SAFETY DATA SHEET

PETROMEEN 4H604

15 REGULATORY INFORMATION

EEC labelling information

- Symbol(s)



Corrosive:C

- Contains

1,2-Diaminoethane (Ethylene diamine)
Ethanolamine

- R Phrase(s)

R 21/22 :Harmful in contact with skin and if swallowed.
R 34 :Causes burns.
R 42/43 :May cause sensitisation by inhalation and skin contact.

- S Phrase(s)

S 23 :Do not breathe vapour.
S 24 :Avoid contact with skin.
S 26 :In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 28 :After contact with skin, wash immediately with plenty of water.
S 36/37/39 :Wear suitable protective clothing, gloves and eye/face protection.
S 45 :In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

- EINECS number

All ingredients of this product are listed in EINECS or ELINCS, unless specifically exempted under the EEC Directive 67/548/EEC.

- France

Tableau des maladies professionnelles n° 49

16 OTHER INFORMATION

Nature of revision

Correction in Section: 7,9,15

Based on EC Directive / Regulations

1999/45/EC
2001/58/EC
2001/118/EC
2004/73/EC
(EC) No 1907/2006 (REACH)

This information is based on our current knowledge and is intended to describe the product for the purpose of safety requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Relevant R phrases, used in sections 2 and 3 of this SDS

R 10 : Flammable.
R 34 : Causes burns.
R 20/21/22 : Harmful by inhalation, in contact with skin and if swallowed.
R 21/22 : Harmful in contact with skin and if swallowed.
R 42/43 : May cause sensitisation by inhalation and skin contact.