



SAFETY DATA SHEET

KLARAID PC4000

1 IDENTIFICATION OF PREPARATION AND OF COMPANY

1.1 Identification of the substance or preparation

Product : KLARAID PC4000

1.2 Use of substance/preparation

Surface and waste water coagulation

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

1.4 Emergency telephone

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

- Official advisory body

ORFILA : 01 45 42 59 59

2 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical description

Aminoethylated polytannin hydrochloride solution

Hazardous component(s)	EINECS/ELINCS #	CAS #	Conc.
Aminoethylated polytannin hydrochloride solution Xi, R36/38	-	104376-81-0	> 20 %
Formaldehyde T, R23/24/25-34-40-43	200-001-8	50-00-0	0.2 - 1 %

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.

3 HAZARDS IDENTIFICATION

Important hazards

- Health/physical hazard Irritating to eyes and skin.
May cause sensitisation by skin contact.
- Environmental hazards The product is not classified as dangerous for the environment.



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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. If irritation persists, seek medical advice.
Inhalation	Remove to fresh air.
Ingestion	Rinse mouth with water. Immediately give 1-2 glasses of water, if victim is fully conscious.

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	Hydrogen chloride, 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.

7 HANDLING AND STORAGE

7.1 Handling	Do not breathe vapours. Avoid contact with skin and eyes.
7.2 Storage	Keep container tightly closed. Store in dry, cool, well ventilated area.

Maximum storage stability (days) 70

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit values	
- VME/VLE (INRS)	Formaldehyde : 0,5 ppm (VME)- 1 ppm (VLE), Carcinogen C3



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Exposure controls

- Recommended engineering controls Adequate ventilation to maintain air contaminants below exposure limits.
- Respiratory protection In case of insufficient ventilation, use a breathing mask with filter type: A2-P2
CEN : EN 140; EN 141
- Hand protection Neoprene gloves (Protection against unintentional short-term contact)
CEN : EN 374-1/2/3; EN 420
- Eye protection Safety goggles.
CEN : EN 166
- Skin protection Protective clothing.
CEN : EN 340; EN 369; EN 465
- 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	Brown

9.2 Important health, safety and environmental info

pH (concentrated product)	1,5
pH in aqueous solution	2,6 (5%)
Boiling point/range (°C)	100
Flash point (Pensky/Martens) (°C)	None.
Density at 20°C (kg/m ³)	1125
Solubility in water (% weight)	Completely soluble
Partition coefficient (Pow)	(Refers to active component) (Tannin): <3
Viscosity at 20°C (mPas)	20
Relative vapour density (air=1)	< 1
Evaporation rate (ether=1)	< 1

9.3 Other information

Melting point, (°C)	- 4
Pour point, (°C)	- 1

10 STABILITY AND REACTIVITY

- 10.1 Conditions to avoid** Protect from freezing.
- 10.2 Materials to avoid** Avoid contact with strong bases.
- 10.3 Hazardous decomposition products** Hydrogen chloride, oxides of carbon and nitrogen evolved in fire.



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11 TOXICOLOGICAL INFORMATION

Mammalian Test Data

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

Exposure hazard

- Inhalation Prolonged or repeated exposure may cause transient irritation.
- Skin contact Causes irritation.
May cause sensitisation.
- Eye contact Causes irritation.
- Ingestion May cause slight gastrointestinal irritation.

12 ECOLOGICAL INFORMATION

Ecotoxicity

- Fathead minnow (mg/l) LC50 : 70,7
NOEL : 25
96 hour static renewal bioassay
- Daphnia Magna (mg/l) LC50 : 390
LC0 : 125
48 hour static renewal bioassay

Persistence and degradability

- COD (mgO2/g) 261
- BOD 5 (mgO2/g) 68
OECD 301D
- BOD 28 (mgO2/g) 203
OECD 301D
- Closed Bottle Test (% Degradation in 28 days) 78
OECD 301D
- Biodegradation (%) Testing has shown product to be readily biodegradable.

Bioaccumulative potential

- Bioaccumulation Not bioaccumulating
(Refers to active component) Tannin
- Partition coefficient (Pow) (Refers to active component) (Tannin) : <3

Summary

The product is not classified as dangerous for the environment.

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.



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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.) Not applicable.

Correct shipping name Not applicable.

Land transport
- RID/ADR classification Not classified under this legislation.

Maritime transport
- IMO-IMDG class Not classified under this legislation

Air transport
- ICAO/IATA classification Not classified under this legislation

15 REGULATORY INFORMATION

EEC labelling information

- Symbol(s) Irritant:Xi

- Contains Formaldehyde

- R Phrase(s) R 36/38 :Irritating to eyes and skin.
R 43 :May cause sensitisation by skin contact.

- S Phrase(s) 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.

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

16 OTHER INFORMATION

Nature of revision Correction in Section: 9

Based on EC Directive 1999/45/EC
2001/58/EC
2001/118/EC

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.



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

R 34 : Causes burns.
R 40 : Limited evidence of a carcinogenic effect.
R 43 : May cause sensitisation by skin contact.
R 23/24/25 : Toxic by inhalation, in contact with skin and if swallowed.
R 36/38 : Irritating to eyes and skin.