



Material Safety Data Sheet

Accepta 2104

Date issued: 01-01-2003

1. IDENTIFICATION OF THE PREPARATION AND OF THE COMPANY

Product Name:	ACCEPTA 2104
Application:	Boiler water & Condensate Corrosion inhibitor
Company Identification:	Accepta Ltd. PO Box 339 Macclesfield Cheshire SK10 2XU United Kingdom
Office telephone number:	+44 (0) 1625 267581
Office fax number:	+44 (0) 870 135 6389
Emergency Telephone Number:	+44 (0) 1625 267581

2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL DESCRIPTION:
Preparation containing: Cyclohexylamine, Ethanolamine, Methoxypropylamine and Carbohydrazide in aqueous solution.

HAZARDOUS INGREDIENTS:

CAS NO.	EINECS NO.	CHEMICAL NAME	WT %	SYMBOL	R-PHRASES
108-91-8	2036290	Cyclohexylamine	5 - 15	C	10,21/22,34
141-43-5	2054833	Ethanolamine	10 - 20	C	20/21/22, 34
5332-73-0	2262413	Methoxypropylamine	10 - 20	C	10,22,35,43
497-18-7	2078372	Carbohydrazide	1 - 5	Xn	22-38-43

3. HAZARD IDENTIFICATION

This product is classified as dangerous (European Directive 1999/45/EC).

HUMAN HEALTH HAZARDS - ACUTE:

INHALATION:

Causes severe burns.

SKIN CONTACT:

Causes severe burns.

EYE CONTACT:

Causes severe burns. May cause permanent damage to eyes.

INGESTION:

Corrosive, causes burns to gastro-intestinal tract. Nausea, vomiting and stomach pain may occur. In severecases blood may be vomited. Harmful if swallowed.

HUMAN HEALTH HAZARDS - CHRONIC:

May cause sensitization by skin contact.

PHYSICAL AND CHEMICAL HAZARDS:

FLASH POINT: 56 °C (PMCC)



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4. FIRST AID MEASURES

INHALATION:
Obtain medical attention immediately. Remove to fresh air, rest, treat symptomatically.

SKIN CONTACT:
Remove contaminated clothing. Wash off affected area immediately with plenty of water. Obtain medical attention immediately. Speed is essential.

EYE CONTACT:
Obtain medical attention immediately. Speed is essential. Immediately gently irrigate with clean water for at least 15 minutes. Move eyeball and keep eyelids wide open and apart whilst irrigating.

INGESTION:
Obtain medical attention immediately. **Do not induce vomiting without medical advice.** If conscious washout mouth and give one glass of water to drink.

ADDITIONAL INFORMATION
Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsions may be needed.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:
Water, dry powder, carbon dioxide, foam.

FIRE AND EXPLOSION HAZARD
May evolve oxides of nitrogen under fire conditions. May evolve COx under fire conditions.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTING:
In case of fire, wear a full face positive-pressure self contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:
Do not breathe vapour. Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of water. Take off immediately all contaminated clothing. Remove sources of ignition. Ensure adequate ventilation. Use personal protective equipment recommended in Section 8.

ENVIRONMENTAL PRECAUTIONS:
Do not allow to enter sewers or water courses. If spillage does enter sewers or water courses, immediately inform the appropriate water authorities.

METHODS FOR CLEANING UP:
Small spills: Soak up with inert absorbent material. Clean up promptly by scoop or vacuum.
Large spills: Sweep up and shovel. Reclaim into recovery or salvage drums.
Wash site of spillage thoroughly with water.



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7. HANDLING AND STORAGE

HANDLING:

Do not breathe vapour. Avoid contact with skin and eyes. No smoking. When using do not eat or drink. Use with adequate ventilation.

STORAGE CONDITIONS:

Keep container tightly closed and in a well-ventilated place. Storage for more than one year is not recommended. Store away from heat and sources of ignition.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS

NATIONAL REGULATIONS GERMANY Cyclohexylamine: MAK 40 mg/m³ (10 ppm)

Ethanolamine, TRGS 900: 5,1 mg/m³ / 2 ppm "H"

NATIONAL REGULATIONS UK Cyclohexylamine: OES TWA 10 ppm

Ethanolamine: OES TWA 3 ppm, STEL 6 ppm

NATIONAL REGULATIONS SWITZERLAND Cyclohexylamine: TWA 10 ppm, STEL 20 ppm

Ethanolamine: TWA 3 ppm, STEL 15 ppm

NATIONAL REGULATIONS FRANCE Cyclohexylamine: VME 10 ppm, 40 mg/m³

Ethanolamine: VME 3 ppm, 8 mg/m³

NATIONAL REGULATIONS HOLLAND Cyclohexylamine: MAC TGG 20 mg/m³ (5 ppm) H

Ethanolamine: MAC TGG 2,5 mg/m³ (1 ppm) H

NATIONAL REGULATIONS SWEDEN Cyclohexylamine: NGV 20 mg/m³, KTV 40 mg/m³

Ethanolamine: NGV 8 mg/m³, KTV 15 mg/m³

NATIONAL REGULATIONS FINLAND Cyclohexylamine: HTP 41 ppm (skin)

Ethanolamine: 7.6 mg/m³ (8h), 15 mg/m³ (15 min.)

NATIONAL REGULATIONS NORWAY Use only in a closed system.

Cyclohexylamine: TLV 40 mg/m³ (10 ppm) (skin)

Ethanolamine: TLV 8 mg/m³ (3 ppm)

NATIONAL REGULATIONS DENMARK Cyclohexylamine: GV 40 mg/m³ (10 ppm) (skin)

Ethanolamine: GV 2.5 mg/m³ (1 ppm) (skin)

ENGINEERING MEASURES Use general ventilation with local exhaust ventilation. Use a closed dosing system.

RESPIRATORY PROTECTION:

An approved respirator must be worn if the occupational exposure limit is likely to be exceeded. Wear a cartridge respirator (when required by use conditions), filter-type ABEK.

Amine rich air will be displaced when refilling stock tanks. If it is necessary to remain near to the container at such times and the area is poorly ventilated an approved respirator should be worn.

HAND PROTECTION: Neoprene gloves, Nitrile gloves, Butyl gloves. Most glove materials are of low chemical resistance. Replace gloves regularly.

SKIN PROTECTION: Apron and boots. A full slicker suit is recommended if gross exposure is possible.

EYE PROTECTION: Chemical splash goggles, face shield.

HYGIENE RECOMMENDATIONS: Keep an eye wash fountain available. Keep a safety shower available. Observe conventional precautions for handling chemicals. Wash hands at breaks and at the end of the shift. If clothing is contaminated, remove clothing and thoroughly wash the affected area. Launder contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

NOTE: These physical properties are typical values for this product

FORM: Liquid

COLOUR: Light yellow - Pink

ODOUR: Amine

VALUE UNIT TEST METHOD

BOILING POINT: > 100 °C

MELTING POINT: < -20 °C

FLASH POINT: 56 °C ASTM D-93

VAPOUR PRESSURE (20 °C) 12 mmHg ASTM D-2879

RELATIVE DENSITY: 1.00 g/cm³ ASTM D-1298

SOLUBILITY IN WATER: Complete

pH (20°C) 12,4 ASTM E-70

VISCOSITY (25 °C) 5 cps ASTM D-2983

FREEZING POINT: - 22 °C ASTM D-1177



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10. STABILITY AND REACTIVITY

STABILITY:
Stable under ambient conditions.
CONDITIONS TO AVOID:
Heat.
MATERIALS TO AVOID:
Acids.
HAZARDOUS DECOMPOSITION PRODUCTS:
Oxides of carbon, Oxides of nitrogen (under fire conditions).

11. TOXICOLOGICAL INFORMATION

Hazard classification is based on 1999/45/EC, 67/548/EEC and available ingredient toxicity data.
Please refer to section 3 for hazards identification.
ACUTE TOXICITY DATA:
ACUTE LETHALITY VALUES:
Oral (rat): LD50 = 1267 mg/kg
Dermal (rabbit): LD50 = > 2000 mg/kg
PRIMARY (DRAIZE TEST) SKIN/EYE
skin: Corrosive
eyes: Corrosive
SENSITIZATION:
Methoxypropylamine is expected to cause skin sensitization.

12. ECOLOGICAL INFORMATION

PERSISTENCY AND DEGRADATION:
Biological degradation: The product is biodegradable.
Biological Oxygen Demand (BOD 5): 6400 mg/l.
Chemical Oxygen Demand (COD): 524000 mg/l
ECOTOXICOLOGICAL EFFECTS:
LC50/96H/Pimephales promelus (Fathead Minnow)= 194 mg/l
LC50/96H/Oncorhynchus Mykiss (Rainbow Trout)= 176 mg/l
LC50/48H/Daphnia magna (Water Flea) : 200 mg/l
ADDITIONAL ECOLOGICAL DATA:
Behaviour in municipal sewage treatment plants: Discharge in minor quantity into adapted biological units of sewage treatment plants is not expected to affect the efficiency of the activated sludge process
AOX information: Product contains no organic halogens



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13. DISPOSAL CONSIDERATIONS

Via authorized contractor. If this product becomes a waste, the final user must define and assign the appropriate European Waste Catalogue code.

NATIONAL REGULATIONS UK

In accordance with the Environmental Protection (Duty of Care) Regulations 1991. Special Waste Regulations 1996 apply.

NATIONAL REGULATIONS AUSTRIA

Waste Code: 55352

14. TRANSPORT INFORMATION

Class: 8 Packing group: II

UN 2734

Proper shipping name: AMINES, LIQUID , CORROSIVE, FLAMMABLE, N.O.S. (Methoxypropylamine, Cyclohexylamine)

ADR/RID, H.I.n.: 83

15. REGULATORY INFORMATION

CLASSIFICATION:

HAZARD SYMBOL: CORROSIVE



C, CORROSIVE

Contains: Methoxypropylamine, Cyclohexylamine, Ethanolamine, Carbohydrazide

RISK PHRASES: R35 Causes severe burns. R22 Harmful if swallowed. R43 May cause sensitization by skin contact.

SAFETY PHRASES: S23 Do not breathe vapour. S24/25 Avoid contact with skin and eyes. S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. 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 where possible).

NATIONAL REGULATIONS GERMANY

VbF-Klasse: None

WHG-WGK: 1 Classification according VwVwS v. 17.05.99, Anhang 4

StörfallIV: /12.BImSchV.Liste d. Anh. II): -

TA-Luft: Cyclohexylamine, Kl. II, 3.1.7

Methoxypropylamine, Kl. III, 3.17

Berufsgenossensch. Vorschriften: -

Hinweise zur Beschäftigungsbeschränkung: Observe § 15 of regulations for hazardous substances

NATIONAL REGULATIONS UK

COSHH regulations apply. A precaution card is available and should be displayed wherever this product is used and stored (REF.CXnRP)

NATIONAL REGULATIONS SWITZERLAND BAGT-Nr: 617363 Toxic class: 3

NATIONAL REGULATIONS FRANCE

Cyclohexylamine: Tableau des maladies professionnelles n°49.

Ethanolamine: Tableau des maladies professionnelles n°49.

NATIONAL REGULATIONS NORWAY Registration number 051148



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16. OTHER INFORMATION

Emergency Telephone Number +44 (0) 1625 267581

RELEVANT RISK PHRASES:

R10 Flammable. R20/21/22 Harmful by inhalation, in contact with skin and if swallowed. R34 Causes burns.

R35 Causes severe burns. R43 May cause sensitization by skin contact. R38 Irritating to skin.