

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 29.04.2016

Revision: 29.04.2016

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:**
- **Article number:** 2215
- **Registration number** Mixture
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use** SU23 Electricity, steam, gas water supply and sewage treatment
- **Product category** PC37 Water treatment chemicals
- **Application of the substance / the mixture** Water treatment
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
  
- **Further information obtainable from:** Product safety department.
- **1.4 Emergency telephone number:**

### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS08 health hazard

Repr. 2      H361f Suspected of damaging fertility.



GHS05 corrosion

Skin Corr. 1B   H314 Causes severe skin burns and eye damage.

Eye Dam. 1      H318 Causes serious eye damage.



GHS07

Acute Tox. 4    H302 Harmful if swallowed.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms** GHS05, GHS07, GHS08
- **Signal word** Danger
- **Hazard-determining components of labelling:**  
morpholine  
Cyclohexylamine
- **Hazard statements**  
H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H361f Suspected of damaging fertility.
- **Precautionary statements**  
P260 Do not breathe mist/vapours/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P270 Do not eat, drink or smoke when using this product.

(Contd. on page 2)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 29.04.2016

Revision: 29.04.2016

**Trade name:**

(Contd. of page 1)

- P202 Do not handle until all safety precautions have been read and understood.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P302+P352 IF ON SKIN: Wash with plenty of water.
- **2.3 Other hazards**
  - **Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.
  - **vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 532-32-1 EINECS: 208-534-8	Sodium benzoate ⚠ Eye Irrit. 2, H319	50-100%
CAS: 110-91-8 EINECS: 203-815-1	morpholine ⚠ Flam. Liq. 3, H226; ⚠ Skin Corr. 1B, H314; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	10-25%
CAS: 108-91-8 EINECS: 203-629-0	Cyclohexylamine ⚠ Flam. Liq. 3, H226; ⚠ Repr. 2, H361f; ⚠ Skin Corr. 1B, H314; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312	10-25%

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**  
 Immediately remove any clothing soiled by the product.  
 Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**  
 Supply fresh air; consult doctor in case of complaints.  
 In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**  
 DO NOT DELAY!  
 Immediately rinse with water.  
 If skin irritation continues, consult a doctor.
- **After eye contact:**  
 DO NOT DELAY!  
 Check for and remove any contact lenses.  
 Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**  
 DO NOT DELAY!  
 Call for a doctor immediately.  
 Drink plenty of water and provide fresh air. Call for a doctor immediately.  
 Do not induce vomiting; call for medical help immediately.  
 If vomiting occurs spontaneously, keep head below hips to prevent aspiration.
- **4.2 Most important symptoms and effects, both acute and delayed**  
 No further relevant information available.
- **Information for doctor:** Treat symptomatically and supportively.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
 No further relevant information available.

GB

(Contd. on page 3)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 29.04.2016

Revision: 29.04.2016

Trade name:

(Contd. of page 2)

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture**  
During heating or in case of fire poisonous gases are produced.  
In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.
- **5.3 Advice for firefighters**
- **Protective equipment:**  
Do not inhale explosion gases or combustion gases.  
Wear self-contained respiratory protective device.  
Wear fully protective suit.
- **Additional information** Cool endangered receptacles with water spray.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation  
Keep ignition sources away - no smoking.
- **6.2 Environmental precautions:** Do not allow to penetrate the ground/soil.
- **6.3 Methods and material for containment and cleaning up:**  
Pick up mechanically.  
Send for recovery or disposal in suitable receptacles.  
Ensure adequate ventilation.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of dust.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Prevent any seepage into the ground.  
Do not store in aluminium, copper, zinc containers.
- **Information about storage in one common storage facility:**  
Store away from oxidising agents.  
Store away from foodstuffs.
- **Further information about storage conditions:**  
Keep container tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.  
Store in a bunded area.  
Protect from heat and direct sunlight.
- **7.3 Specific end use(s)** No further relevant information available.

GB

(Contd. on page 4)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 29.04.2016

Revision: 29.04.2016

Trade name:

(Contd. of page 3)

### SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

- **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

#### 110-91-8 morpholine

WEL	Short-term value: 72 mg/m <sup>3</sup> , 20 ppm
	Long-term value: 36 mg/m <sup>3</sup> , 10 ppm
Sk	

#### 108-91-8 Cyclohexylamine

WEL	Long-term value: 41 mg/m <sup>3</sup> , 10 ppm
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- **Additional information:** The lists valid during the making were used as basis.

- **8.2 Exposure controls**

- **Personal protective equipment:**

Select PPE appropriate for the operations taking place taking into account the product properties.

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

Do not inhale dust / smoke / mist.

Do not eat, drink, smoke or sniff while working.

Pregnant women should strictly avoid inhalation or skin contact.

Take note of assigned Workplace Exposure Limits.

- **Respiratory protection:**

Use suitable respiratory protective device in case of insufficient ventilation.

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

- **Body protection:**

Impervious protective clothing

(Contd. on page 5)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 29.04.2016

Revision: 29.04.2016

Trade name:

(Contd. of page 4)

Body protection must be chosen depending on product properties, activity and possible exposure.

### SECTION 9: Physical and chemical properties

#### · 9.1 Information on basic physical and chemical properties

##### · General Information

##### · Appearance:

Form:	Solid
Colour:	White
Odour:	Amine-like
Odour threshold:	Not determined.

· pH-value (40 g/l) at 20 °C: 11.5

##### · Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	>100 °C

· Flash point: >60 °C

· Flammability (solid, gaseous): Not applicable.

· Ignition temperature: >200 °C

· Decomposition temperature: Not determined.

· Self-igniting: Product is not self-igniting.

· Danger of explosion: Product does not present an explosion hazard.

##### · Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

· Vapour pressure at 20 °C: 13 hPa

Density at 20 °C:	1.2 g/cm <sup>3</sup>
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not determined.

##### · Solubility in / Miscibility with water:

Fully miscible.

· Partition coefficient (n-octanol/water): Not determined.

##### · Viscosity:

Dynamic:	Not determined.
Kinematic:	Not determined.

· 9.2 Other information No further relevant information available.

### SECTION 10: Stability and reactivity

· 10.1 Reactivity No further relevant information available.

#### · 10.2 Chemical stability

##### · Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

To avoid thermal decomposition do not overheat.

#### · 10.3 Possibility of hazardous reactions

The product is a strong base, it reacts violently with acid and is corrosive. Reacts violently with strong oxidants causing fire hazard.

Reaction with nitrosating agents (e.g. nitrites, nitrous acid, nitrous gases) can release cancerogenic nitrosamines.

(Contd. on page 6)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 29.04.2016

Revision: 29.04.2016

**Trade name:**

(Contd. of page 5)

- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**  
Strong acids and oxidising agents  
Substances specifically listed in section 10.3 as incompatible.
- **10.6 Hazardous decomposition products:**  
Nitrogen oxides (NO<sub>x</sub>)  
Carbon monoxide and carbon dioxide

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**  
Harmful if swallowed.
- **Primary irritant effect:**
- **Skin corrosion/irritation**  
Causes severe skin burns and eye damage.
- **Serious eye damage/irritation**  
Causes serious eye damage.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**  
ROUTES OF EXPOSURE: The component substances can variously be absorbed into the body by inhalation, through the skin and by ingestion.
  
- EFFECTS OF SHORT-TERM EXPOSURE: The product is corrosive to the eyes, the skin and the respiratory tract. Corrosive on ingestion. May cause effects on the central nervous system.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity**  
Suspected of damaging fertility.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** The organic portion of the product is biodegradable.
- **12.3 Bioaccumulative potential** Product is not expected to bioaccumulate.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Must not reach sewage water or drainage ditch undiluted or unneutralised.  
Danger to drinking water if even small quantities leak into the ground.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

GB

(Contd. on page 7)

# Safety data sheet

## according to 1907/2006/EC, Article 31

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Revision: 29.04.2016

Trade name:

(Contd. of page 6)

### SECTION 13: Disposal considerations

#### · 13.1 Waste treatment methods

##### · Recommendation

Recommended Hierarchy of Controls:

- Minimise waste;
- Reuse if not contaminated;
- Recycle, if possible; or
- Safe disposal (if all else fails).

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Contact waste processors for recycling information.

Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.

##### · European waste catalogue

Waste key numbers in accordance with the European Waste Catalogue (EWC) are origin-referred defined. Since this product is used in several industries, no waste key can be provided by the supplier. The waste key number should be determined in arrangement with your waste disposal partner or the responsible authority.

##### · Uncleaned packaging:

##### · Recommendation:

Disposal must be made according to official regulations.

Container remains hazardous when empty. Continue to observe all precautions.

Containers, even those that are "empty," may contain residues that can develop flammable vapours upon heating. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.

##### · Recommended cleansing agents: Water, if necessary together with cleansing agents.

### SECTION 14: Transport information

#### · 14.1 UN-Number

##### · ADR, IMDG, IATA

UN3263

#### · 14.2 UN proper shipping name

##### · ADR

3263 CORROSIVE SOLID, BASIC, ORGANIC, N.O.S.

##### · IMDG, IATA

CORROSIVE SOLID, BASIC, ORGANIC, N.O.S.

#### · 14.3 Transport hazard class(es)

##### · ADR, IMDG, IATA



##### · Class

8 Corrosive substances.

##### · Label

8

#### · 14.4 Packing group

##### · ADR, IMDG, IATA

II

#### · 14.5 Environmental hazards:

Not applicable.

#### · 14.6 Special precautions for user

Warning: Corrosive substances.

##### · EMS Number:

F-A,S-B

##### · Segregation groups

Alkalies

##### · Stowage Category

B

#### · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

(Contd. on page 8)

# Safety data sheet

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**Trade name:**

(Contd. of page 7)

· **Transport/Additional information:**

· **ADR**

· **Limited quantities (LQ)**

1 kg

· **Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 500 g

· **UN "Model Regulation":**

UN 3263 CORROSIVE SOLID, BASIC, ORGANIC,  
N.O.S., 8, II

### SECTION 15: Regulatory information

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **Seveso category P5c**

· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t

· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t

· **National regulations:**

Class	Share in %
NK	22.5

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H361f Suspected of damaging fertility.

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

LC50: Lethal concentration, 50 percent

SVHC: Substances of Very High Concern

Flam. Liq. 3: Flammable liquids – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Repr. 2: Reproductive toxicity – Category 2