Safety Data Sheet

according to UK REACH Regulation

WIN L 4135

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

1.1. Product identifier

WIN L 4135

Further trade names

CERTDOS 4135

UFI: Y1FC-10UX-7000-37J0

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/the mixture

Combined product the treatment of boiler water

Anti-incrustator inhibitor, oxygen binder and vapour alkalization agent

1.3. Details of the supplier who provides the safety data sheet

Company name:	CERTUSS GmbH
Street:	Hafenstr. 65
City:	D-47809 Krefeld
Phone:	+49 (0) 2151 578-0
Contact partner:	Mr. Hamacher
E-mail:	t.hamacher@certuss.com
Informing department:	Technical Director

Monday to Thursday from 9 – 16 (9 a.m. to 4 p.m.), Friday 9 – 14 (9 a.m. to 2 p.m.)

Emergency number DE: GIZ-Nord +49 (0)551 -19240

AUT: +43 1 406 43 43

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Skin Corr. 1B; H314

Eye Dam. 1; H318

Full text of hazard statements: see SECTION 16.

2.2. Label elements

GB CLP Regulation

Hazard components for labelling

sodium metabisulphite

morpholine

sodium hydroxide; caustic soda

Signal word: Danger

Pictograms:

Hazard statements

H314	Causes severe skin burns and eye damage.

Precautionary statements

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.

Special labelling of certain mixtures

EUH031 Contact with acids liberates toxic gas.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Relevant ingredients

CAS-No.	Chemical name			Quantity
	EC No.	Index No.	REACH No.	
	Classification (GB CLP Regulation)			
7681-57-4	sodium metabisulphite			10 – 20 %
	231-673-0	016-063-00-2		
	Acute Tox. 4, Eye Dam. 1; H302 H318 EUH031			
110-91-8	morpholine			< 10 %
	203-815-1	613-028-00-9		
	Flam. Liq. 3, Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B; H226 H332 H312 H302 H314			
1310-91-8	sodium hydroxide; caustic soda			< 1 %
	215-185-5	011-002-00-6	01-2119457892-27	
	Met. Corr. 1, Skin Corr. 1A; H290 H314			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
7681-57-4	231-673-0	sodium metabisulphite	10 – 20 %
	oral: LD50 = 1130 mg/kg		
110-91-8	203-815-1	morpholine	< 10 %
	inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: ATE = 1100 mg/kg; oral: ATE = 500 mg/kg		
1310-91-8	215-185-5	sodium hydroxide; caustic soda	< 1 %
	Skin Corr. 1A; H314: >= 5 - 100 Skin Corr. 1B; H314: >= 2 - < 5 Skin Irrit. 2; H315: >= 0,5 - < 2 Eye Irrit. 2; H319: >= 0,5 - < 2		

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove affected person from the danger area and lay down. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). First aider: Pay attention to self-protection! Move victim out of danger zone.

After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator. Call a physician immediately.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink 1 glass of of water. Do NOT induce vomiting. Adverse human health effects and symptoms: Gastric perforation. Call a physician immediately. Do not allow a neutralisation agent to be drunk.

4.2. Most important symptoms and effects, both acute and delayed

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

5.2. Special hazards arising from the substance or mixture

Non-flammable. In case of fire may be liberated: Sulphur dioxide (SO2).. Sulphur trioxide

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. In case of fire and/or explosion do not breathe fumes.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For cleaning up

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

Other information

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. If handled uncovered, arrangements with local exhaust ventilation should be used if possible. If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff. Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.

Further information on handling

Use only in well-ventilated areas.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations.

Hints on joint storage

Do not store together with: Acid

7.3. Specific end use(s)

Combined product the treatment of boiler water
Anti-incrustator inhibitor, oxygen binder and vapour alkalization agent

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
7681-57-4	Disodium disulphite	–	5		TWA (8 h)	WEL
110-91-8	Morpholine	10	36		TWA (8 h)	WEL
		20	72		STEL (15 min)	WEL
1310-73-2	Sodium hydroxide	–	2		STEL (15 min)	WEL

DNEL/DMEL values

CAS No	Substance			
DNEL type				
1310-73-2	Sodium hydroxide; caustic soda			
Worker DNEL, long-term		inhalation	local	1 mg/m³
Consumer DNEL, long-term		inhalation	local	1 mg/m³

PNEC values

CAS No	Substance	
Environmental compartment		Value
1310-73-2	Sodium hydroxide; caustic soda	
Freshwater		

8.2. Exposure controls


Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection: goggles.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Use of protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	colourless
Odour::	specific

	Test method
Melting point/freezing point:	-10 °C

Boiling point or initial boiling point and boiling range:	102 °C
Flammability:	not determined
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Flash point:	inapplicable Residues of fire and contaminated water have to be disposed according to the local regulations.
Auto-ignition temperature:	not determined
Decomposition temperature:	not determined
pH-Value (at 20 °C):	6,5
Viscosity / kinematic:	not determined ISO 3219
Water solubility:	completely miscible
Solubility in other solvents	not determined
Partition coefficient n-octanol/water:	not determined
Vapour pressure:	not determined
Density (at 20 °C):	1,2 g/cm³
Relative vapour density:	not determined
Particle characteristics:	not applicable

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

The product is not: Explosive.

Oxidizing properties

The product is not: oxidising.

Other safety characteristics

Evaporation rate:	not determined
Solvent content:	0,0 %
Solid content:	not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

Reaction with: Acid.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

none

10.5. Incompatible materials

Acids, oxidizing agents

10.6. Hazardous decomposition products

Contact with acids liberates toxic gas. sulfur dioxide

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation

ATEmix calculated

ATE (oral) 3333 mg/kg; ATE (dermal) 14286 mg/kg; ATE (inhalation vapour) 142,9 mg/l; ATE (inhalation dust/mist) 19,48 mg/l

Acute toxicity

CAS No.	Chemical name				
	Exposition route	Dose	Species	Source	Method
7681-57-4	sodium metabisulphite				
	oral	LD50 1130 mg/kg	Rat	GESTIS	
110-91-8	morpholine				
	oral	ATE 500 mg/kg			
	dermal	ATE 1100 mg/kg			
	inhalative vapour	ATE 11 mg/l			
	inhalative dust/mist	ATE 1,5 mg/l			

11.2. Information on other hazards

Other information

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

SECTION 12: Ecological information

12.1. Toxicity

The product is not: Ecotoxic.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
7681-57-4	sodium métabisulphite					
	Acute fish toxicity	LC50 150 - 220 mg/l	96 h	Onchorhynchus mykiss		

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

The product has not been tested.

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH. The product has not been tested.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No information available.

Further information

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

List of Wastes Code - residues/unused products

070799 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fine chemicals and chemical products not otherwise specified; wastes not otherwise specified

Contaminated packaging

Wash with plenty of water. Completely emptied packages can be recycled.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN-Number or ID number:	UN 2735
14.2. UN proper shipping name	AMINES, LIQUID, CORROSIVE, N.O.S. (morpholine)
14.3. Transport hazard class(es):	8
14.4. Packaging group:	II
Hazard label:	8

Classification code:	C7
Specific provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2
Transport category:	2
Hazard No.:	80
Tunnel restriction code:	E

Inland waterways transport (ADN)

14.1. UN-Number or ID number:	UN 2735
14.2. UN proper shipping name	AMINES, LIQUID, CORROSIVE, N.O.S. (morpholine)
14.3. Transport hazard class(es):	8
14.4. Packaging group:	II
Hazard label:	8

Classification code:	C7
Specific provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2

Marine transport (IMDG)

14.1. UN-Number or ID number:	UN 2735
14.2. UN proper shipping name	AMINES, LIQUID, CORROSIVE, N.O.S. (morpholine)
14.3. Transport hazard class(es):	8
14.4. Packaging group:	II
Hazard label:	8

Special Provisions:	274
Limited quantity Passenger:	1 L
Excepted quantity:	E2
EmS:	F-A, S-B
Segregation group:	18 - alkalis

Air transport (ICAO-TI/IATA-DGR)

14.1. UN-Number or ID number:	UN 2735
14.2. UN proper shipping name	AMINES, LIQUID, CORROSIVE, N.O.S. (morpholine)
14.3. Transport hazard class(es):	8
14.4. Packaging group:	II
Hazard label:	8

Special Provisions:	A3 A803
Limited quantity Passenger:	0.5 L
Passenger LQ	Y840
Excepted quantity:	E2
IATA-packing instructions - Passenger:	851
IATA-max. quantity - Passenger:	1 L
IATA-packing instructions - Cargo:	855
IATA-max. quantity - Cargo:	30 L

14.5. Environmental hazards

ENVIRONMENTAL HAZARDOUS: No

14.6. Special precautions for user

Warning: strongly corrosive

14.7. Maritime transport in bulk according to IMO instruments

not applicable

Other applicable information:

Hazchem code: 2X

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):
Entry 3, Entry 40, Entry 75

Information according to Directive 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the ‚juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 1 - slightly hazardous to water

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Abbreviations and acronyms

Met. Corr:	Corrosive to metals
Flam. Liq:	Flammable liquids
Acute Tox:	Acute toxicity
Skin Corr:	Skin corrosion
Eye Dam:	Eye damage
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 Harmonized 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
LC50:	Lethal concentration, 50%
LD50:	Lethal dose, 50%
CLP:	Classification, labelling and Packaging
REACH:	Registration, Evaluation and Authorization of Chemicals

GHS:	Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
UN:	United Nations
EC/EEC:	European Community/European Economic Community
EU:	European Union
DNEL:	Derived No Effect Level
DMEL:	Derived Minimal Effect Level
PNEC:	Predicted No Effect Concentration
ATE:	Acute toxicity estimate
LL50:	Lethal loading, 50%
EL50:	Effect loading, 50%
EC50:	Effective Concentration 50%
ErC50:	Effective Concentration 50%, growth rate
NOEC:	No Observed Effect Concentration
BCF:	Bio-concentration factor
PBT:	persistent, bioaccumulative, toxic
vPvB:	very persistent, very bioaccumulative
M-factor:	Multiplying factor
RID:	Regulations concerning the international carriage of dangerous goods by rail
ADN:	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)
EmS:	Emergency Schedules
MFAG:	Medical First Aid Guide
IATA:	International Air Transport Association
DGR:	Dangerous Goods Regulations
ICAO:	International Civil Aviation Organization
TI:	Technical Instructions
MARPOL:	International Convention for the Prevention of Marine Pollution from Ships
IBC:	Intermediate Bulk Container
SVHC:	Substance of Very High Concern

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Skin Corr. 1B; H314	Calculation method
Eye Dam. 1; H318	Calculation method

Relevant H and EUH statements (number and full text)

H226	Flammable liquid and vapour.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
EUH031	Contact with acids liberates toxic gas.

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)

Section 17: Confirmation WIN-L-4135

The above-mentioned products serves as an aid in treating boiler feed-water. It is used for hardness stabilization and oxygen scavenging.

The product fulfils Sections 30 and 31 of the Foodstuffs and Consumer Goods Law.

The product WIN-L-4135 may thus be used as an aid for steam generation in the foodstuffs industry and in air moistening systems as well as district heating plants.

WIN-L-4135 is not steam-volatile and does not contain AOX.

WIN-L-4135 is a compound of sodium salt of a polyacrylic acid, sodium sulfite and caustic lye of soda in an aqueous solution.

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