

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

1.1. Product identifier

Trade name	Marisol CW
Article No.	24-4520
UFI code	0M14-T0QD-A00E-CM84

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

Product type	Water treatment chemical
Relevant identified uses	Restricted to professional users.

1.3. Details of the supplier of the safety data sheet

Supplier	AB DFS
Street address	Fiskebäcks Hamn 7 426 58 Västra Frölunda Sweden
Telephone	031-29 14 35
Email	order@dfs-ab.se
Web site	www.dfs-ab.se

1.4. Emergency telephone number

Emergency phone number	112
Available outside office hours	Yes

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Classification	Acute toxicity, oral, hazard category 4 Skin sensitisation, hazard category 1 Eye irritation, hazard category 2
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Hazard statements	H302, H317, H319
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2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms



Signal word Warning

Hazard statements
H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

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Precautionary statements

P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

More information

Contains: Sodium nitrite , 2-methyl-2H-isothiazol-3-one , Boric acid , 1,2-benzisothiazol-3(2H)-one

2.3. Other hazards

Other hazards

The substance/mixture does not contain any components that are considered persistent, bioaccumulative and toxic (PBT) or very persistent and highly bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical name	CAS No. EC No. REACH No. Index No.	Concentration	Classification	H-phrase M factor acute M factor chronic	Note
Sodium nitrite	7632-00-0 231-555-9 01-2119471836-27 -	15 - <25%	Ox. Sol. 3, Acute Tox. 3 - oral, Eye Irrit. 2, Aquatic Acute 1	H272, H301, H319, H400 - -	-
Boric acid	26038-87-9 247-421-8 - -	1 - 5%	Acute Tox. 4 - oral, Skin Irrit. 2, Eye Irrit. 2	H302, H315, H319 - -	-
1,2-benzisothiazol-3(2H)-one	2634-33-5 220-120-9 01-2120761540-60 -	0 - <1%	Acute Tox. 3 - oral, Skin Corr. 1B, Skin Sens. 1, Aquatic Acute 1, Aquatic Chronic 2, Acute Tox. 3 - inhalation	H301, H314, H317, H330, H400, H411 - -	-
2-methyl-2H-isothiazol-3-one	2682-20-4 220-239-6 - 613-326-00-9	0 - <1%	Acute Tox. 3 - oral, Skin Corr. 1B, Skin Sens. 1A, Eye Dam. 1, Acute Tox. 2 - inhalation, Aquatic Acute 1, Aquatic Chronic 1	H301, H311, H314, H317, H318, H330, H400, H410, EUH071 M-acute=10 M-chro=1	Skin Sens. 1A; H317: C ≥ 0,0015 %

Substance additional information

Section 16 for the full text of H-phrases mentioned in this section.

SECTION 4: First aid measures

4.1. Description of first aid measures

Description of first aid measures

In uncertainty or when symptoms persist, seek medical attention.

Inhalation

Fresh air and rest. Keep an eye on the injured person. Consult a physician.

Skin contact

Immediately remove contaminated clothing and wash skin with soap and water. Call a physician if symptoms occur.

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Eye contact In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

Ingestion Visit a doctor or hospital immediately. Clean mouth with water and drink afterwards plenty of water.

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

Skin contact Can be allergenic.

Eye contact Causes serious eye irritation.

Ingestion Harmful if swallowed.

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

Indication of any immediate medical attention and special treatment needed Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media Do not use a direct jet of water.

5.2. Special hazards arising from the substance or mixture

Special hazards arising from the substance or mixture Toxic gases are formed in the event of fire. :
Ammonia
amines

5.3. Advice for firefighters

Special protective equipment for fire-fighters Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face mask. Firefighter equipment (eg helmet, safety boots and gloves) that complies with the European standard EN 469, provides basic protection in the event of chemical accidents.

Measures in case of fire Prevent firefighting water to reach water or sewers. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions, protective equipment and emergency procedures Ensure good ventilation. Avoid inhalation of vapors and contact with skin and eyes. Wear suitable protective equipment.

6.2. Environmental precautions

Environmental precautions Prevent entry to sewers and public waters. Inform the responsible authorities in case of gas leakage, or of entry into waterways, soil or drains.

6.3. Methods and material for containment and cleaning up

Methods and material for containment and cleaning up Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

6.4. Reference to other sections

Reference to other sections Personal protection see section 8 and for disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Preventive handling precautions Mechanical ventilation or local extraction may be required. Avoid inhalation of vapors and contact with skin and eyes.

General hygiene Emergency shower and eyewash shall be available at the work site. Wash hands after handling. Do not eat, drink or smoke when using the product. Take of contaminated clothing and wash before re-use.

7.2. Conditions for safe storage, including any incompatibilities

Conditions for safe storage, including any incompatibilities Store at room temperature in the original container. Keep in properly labelled containers. Keep away from food and animal feed.

7.3. Specific end use(s)

Specific end use(s) Identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No data available

8.2. Exposure controls

Appropriate engineering controls Ensure that eyewash stations and safety showers are close to the workstation location. Ensure good ventilation.

Eye / face protection Use goggles or face shield (EN 166).

Hand protection For prolonged or repeated contact use protective gloves. Protective gloves complying with EN 374.

Other skin protection Wear suitable protective clothing.

Respiratory protection In case of inadequate ventilation wear respiratory protection. EN 136/140/145/143/149

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Clear liquid

Colour Straw colored

Odour Weak

Melting point / freezing point No information available

Boiling point or initial boiling point and boiling range 99 °C

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Flammability	No information available
Lower and upper explosion limit	No information available
Flash point	No data available
Auto-ignition temperature	No information available
Decomposition temperature	No information available
pH	No information available
Kinematic viscosity	No information available
Viscosity, dynamic	No information available
Solubility	Water-soluble
Partition coefficient n-octanol/water	No information available
Vapour pressure	No information available
Density and/or relative density	At 20°C: 1.161
Relative vapour density	No information available
Evaporation Rate	No information available
Explosive properties	No information available
Oxidising properties	No information available

9.2. Other information

Other information	No information available
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Stable under recommended storage conditions.
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10.2. Chemical stability

Chemical stability	Stable under normal usage and storage conditions.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	None under normal use.
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10.4. Conditions to avoid

Conditions to avoid	Do not allow dehydration.
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10.5. Incompatible materials

Incompatible materials	Avoid contact with the following materials: Acids. Oxidizing material. Reducing agent. Amines.
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10.6. Hazardous decomposition products

Hazardous decomposition products None known.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity Harmful if swallowed.

Product / Substance name CAS / EC no.	Dose descriptor	Value / Dose	Exposure route	Duration of exposure	Test animals	Method / Guideline	Remarks
1,2-benzisothiazol-3(2H)-one 2634-33-5 / 220-120-9	LD50	2000 mg/kg bw	Oral	-	Rat	OECD 401	Male/Female
1,2-benzisothiazol-3(2H)-one 2634-33-5 / 220-120-9	LD50	> 2000 mg/kg bw	Dermal	-	Rat	OECD 402	Male/Female
2-methyl-2H-isothiazol-3-one 2682-20-4 / 220-239-6	LD50	120 mg/kg bw	Oral	-	Rat	EPA OPPTS 870.1100 (Acute Oral Toxicity)	Female
2-methyl-2H-isothiazol-3-one 2682-20-4 / 220-239-6	LC50	0,11 mg/l	Inhalation	4h	Rat	OECD 403	-
2-methyl-2H-isothiazol-3-one 2682-20-4 / 220-239-6	LD50	242 mg/kg bw	Dermal	24h	Rabbit	OECD 402	Male/Female

Skin corrosion/irritation Based on the available data, the classification criteria are not met.

Serious eye damage/irritation Causes serious eye irritation.

Germ cell mutagenicity Based on the available data, the classification criteria are not met.

Carcinogenicity Based on the available data, the classification criteria are not met.

Reproductive toxicity Based on the available data, the classification criteria are not met.

STOT-single exposure Based on the available data, the classification criteria are not met.

STOT-repeated exposure Based on the available data, the classification criteria are not met.

Aspiration hazard Based on the available data, the classification criteria are not met.

11.2. Information on other hazards

Other information No information available

SECTION 12: Ecological information

12.1. Toxicity

Acute toxicity The product is not classified as environmentally harmful.

Acute fish toxicity

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species	Method / Guideline
Sodium nitrite 7632-00-0 / 231-555-9	LC50	0,54 mg/l	96h	Rainbow trout	-
1,2-benzisothiazol-3(2H)-one 2634-33-5 / 220-120-9	LC50	2,18 mg/l	96h	Rainbow trout	OECD 203
2-methyl-2H-isothiazol-3-one 2682-20-4 / 220-239-6	LC50	> 150 mg/l	96h	Brachydanio rerio (zebra fish)	-

Acute algae toxicity

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species
Sodium nitrite 7632-00-0 / 231-555-9	EC50	> 100 mg/l	72h	Scenedesmus subspicatus (alga)
1,2-benzisothiazol-3(2H)-one 2634-33-5 / 220-120-9	EC50	0,155 mg/l	72h	Selenastrum capricornutum (green algae)
2-methyl-2H-isothiazol-3-one 2682-20-4 / 220-239-6	IC50	0,157 mg/l	72h	Pseudokirchneriella subcapitata (green algae).

Acute crustacean toxicity

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species
Sodium nitrite 7632-00-0 / 231-555-9	EC50	15,4 mg/l	48h	Daphnia magna (Water flea)
1,2-benzisothiazol-3(2H)-one 2634-33-5 / 220-120-9	EC50	2,94 mg/l	48h	Daphnia magna (Water flea)
2-methyl-2H-isothiazol-3-one 2682-20-4 / 220-239-6	EC50	0,87 mg/l	48h	Daphnia magna (Water flea)

12.2. Persistence and degradability

Persistence and degradability The product contains inorganic substances that are not biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential Bio-accumulation is unlikely.

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12.4. Mobility in soil

Mobility No information available

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment Sodium nitrite
Suspected of being PBT.

12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available

12.7. Other adverse effects

Other adverse effects No information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal considerations The product is hazardous waste. Dispose of any product, residue or packing material according to national and local regulations. Empty containers retain product residue and can be hazardous. Do not dispose of waste into sewer. Emptied and cleaned packaging can be recycled.

Packaging Contaminated packaging must be disposed of as product.

Waste code	Description
07 06 04*	other organic solvents, washing liquids and mother liquors

Please note - an asterisk (*) next to a code denotes that it is HAZARDOUS WASTE.

Other

Waste code The waste code is a recommendation. Depends on business area and use. Appropriate classification of waste is the user's responsibility.

SECTION 14: Transport information

14.1. UN number

UN number Not classified as dangerous in the meaning of transport regulations.

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Environmental hazards This product is not classified as dangerous for the environment.

14.6. Special precautions for user

Not applicable

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14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

EU regulations Regulation (EC) No 1907/2006 of the European Parliament and of the Council, (REACH).
European Parliament and Council Regulation (EU) No 1272/2008 (CLP).

National regulations Local laws and regulations should be carefully observed.

15.2. Chemical safety assessment

Chemical safety assessment No chemical safety assessment has been performed.

SECTION 16: Other information

Changes to previous revision 1

Abbreviations PBT: Persistent, Bioaccumulative and Toxic.
vPvB: very Persistent and very Bioaccumulative.
LD50: Lethal dose, the dose that kills 50% of a population.
LC50: Lethal concentration for 50% of a test population.
DNEL: Derived level without observed effects.
PNEC: Presumed concentration without observed effects.

References to key literature and data sources Information taken from the supplier's safety data sheet. Date: 2017-08-25

<http://echa.europa.eu>
<http://eur-lex.europa.eu>

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Phrase meaning

Ox. Sol. 3 - Oxidising solids, hazard category 3
Acute Tox. 3 - oral - Acute toxicity, oral, hazard category 3
Eye Irrit. 2 - Eye irritation, hazard category 2
Aquatic Acute 1 - Hazardous to the aquatic environment — Acute hazard category 1
Acute Tox. 4 - oral - Acute toxicity, oral, hazard category 4
Skin Irrit. 2 - Skin irritation, hazard category 2
Skin Corr. 1B - Skin corrosion, hazard category 1B
Skin Sens. 1 - Skin sensitisation, hazard category 1
Aquatic Chronic 2 - Hazardous to the aquatic environment — Chronic hazard category 2
Acute Tox. 3 - inhalation - Acute toxicity, inhalation, hazard category 3
Skin Sens. 1A - Skin sensitisation, hazard category 1, sub-category 1A
Eye Dam. 1 - Serious eye damage, hazard category 1
Acute Tox. 2 - inhalation - Acute toxicity, inhalation, hazard category 2
Aquatic Chronic 1 - Hazardous to the aquatic environment — Chronic hazard category 1
H272 May intensify fire; oxidiser.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H330 Fatal if inhaled.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
EUH071 Corrosive to the respiratory tract.