Safety data sheet

According to Regulation (EC) No. 1907/2006 annex II and EC/2020/878

Marisol CW

Date of issue: 2025-01-30 **Version 1**

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

1.1 Product identifier	Marisol CW
UFI	4230-J0HS-V00N-VUFY
1.2 Relevant identified uses of the substance or mixture and uses advised against	Water treatment chemical For professional use only.
1.3 Details of the supplier of the safety data sheet	Mico AB
Address	Välingevägen 245 SE-262 92 Ängelholm, Sweden
Telephone	+46 (0)42-362 220
Homepage/E-mail	www.mico.se / info@mico.se
1.4 Emergency telephone number	For poison information call, NHS 111 (England), NHS 24 (Scotland) or NHS Direct (Wales), in emergencies call 999.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification CLP (1272/2008/EC)
Acute toxicity (oral), Hazard Category 4; H302
Sensitisation - Skin, hazard category 1B; H317
Serious eye damage/eye irritation, Hazard Category 2; H319
2.2 Label elements:
Pictogram

Signal Word: Warning

Containing substanses
Sodium nitrite, Boric acid, 2-methylisothiazol-3(2*H*)-one, 1,2-benzisothiazol-3(2H)-one.
Hazard statement Code(s)
H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
Precautionary statements
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 IF ON SKIN: Wash with plenty of water and soap.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/ attention.
P501 Dispose of contents/container to an approved waste disposal facility.
2.3 Other hazards
For professional use only.
This product is not considered to contain any substances that meet the criteria for classification as PBT or vPvB substance in a concentration of ≥0.1%.
Does not contain an endocrine disruptor (EDC) in a concentration of ≥0.1%.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components	CAS-No EC-No Reg-No	Conc. %	Hazard Class and Category Code(s)	Hazard statement Code(s)*
Sodium nitrite Index: 007-010-00-4	7632-00-0 231-555-9 01-2119471836-27	20 - 30	Ox Sol. Acute Tox. 3 Eye Irrit. 2 Aquatic Acute. 1	H272 H301 H319 H400
Boric acid ** Index: 005-007-00-2	10043-35-3 233-139-2 01-2119486683-25	1 - 3	Repr. 1B	H360FD
Sodium 4(or 5)-methyl-1H-benzotriazolide	64665-57-2 265-004-9	0.1 – 0.5	Acute Tox. 4 Skin Corr. 1B Eye Dam. 1 Repr. 2 Aquatic Chronic 2	H302 H314 H318 H361f H411
2-methylisothiazol-3(2*H*)-one *** Index: 613-326-009	2682-20-4 220-239-6 01-2120764690-50	0.01 - 0.1	Acute Tox. 3 Acute Tox. 3 Acute Tox. 2 Skin Corr. 1B Eye Dam1 Skin Sens. 1A Aqatic Acute1 M=10 Aquatic Chronic 1 M=1	H301 H311 H330 H314 H318 H317 H400 H410 EUH071
1,2-benzisothiazol-3(2H)-one **** Index: 613-088-00-6	2634-33-5 220-120-9 01-2120761540-60	0,01 - 0,1	Acute Tox. 4 Skin Irrit. 2 Eye Dam. 1 Skin Sens. 1A Acute Tox. 2 Aquatic Aute 1 M=1 Aquatic Chronic 1 M=1	H302 H315 H318 H317 H330 H400 H410

* The full text of Hazard statement Codes are listed under section 16.
** SCL = Specific concentration limits
Repr. 1B; H360FD: C ≥5.5%
*** SCL = Specific concentration limits
Skin Sens. 1A; H317: C ≥0.0015%
**** SCL = Specific concentration limits
Skin Sens. 1A;H317: C ≥0.036%
ATE Inhalation: 0.21 mg/l (dusts or mists)
ATE Oral: 450 mg/kg bw (-)
Ingredients not listed are classified as non-hazardous or at a concentration below reportable levels.
The classification is based on data from the chemical supplier and http://echa.europa.eu (database)

SECTION 4: First aid measures

4.1 Description of first aid measures:

General information

In all cases of doubt, or when symptoms persist, seek medical advice.
Never give fluids or induce vomiting if patient is unconscious.
Keep the person warm and calm.

Inhalation

Fresh air and rest. Contact a doctor if the complaints persist.

Skin contact

Take off all contaminated clothing. Wash with soap and water and rinse the skin thoroughly. Contact a doctor if the complaints persist.

Eye contact

Important! Rinse immediately with water for at least 10 minutes. Hold eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Contact a doctor if the complaints persist.

Ingestion

Rinse mouth with water and drink several glasses of water or milk. Do not induce vomiting unless directed by medical personnel. Seek medical treatment.

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

Inhalation:	This product may be irritating if inhaled. (Cough)
Skin contact:	May be irritating to the skin. Degreasing effect. (Redness, burning). May cause an allergic skin reaction.
Eye contact:	Irritating to eyes. (Redness, burning)
Ingestion:	The product is harmful if swallowed. May cause stomach pain and discomfort.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Water mist, carbon dioxide, powder or foam.

Unsuitable extinguishing media: Directed water jet.

5.2 Special hazards arising from the substance or mixture

During fire, gases hazardous to health may be formed (Ammonia, Amines). Do not breathe fumes.

5.3 Advice for firefighters

Wear a self-contained breathing apparatus and protective clothing.

Additional information

Cool endangered containers with water in case of fire. Move containers from fire area if it can be done without risk.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment.
Avoid contact with eyes and skin.

6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3 Methods and material for containment and cleaning up

Re-use product if possible. Small quantities may be wiped up with a cloth. Contain larger spill with inert material (e.g. sand, earth or vermiculite). Rinse with water.

SECTION 6: Accidental release measures (…)

6.4 Reference to other sections
See section 7 for proper handling and storage.
For personal protection see section 8.
Place in container for disposal according to local regulations. For disposal of spillage, see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Use personal protective equipment.
Avoid contact with eyes and skin.
Normal precautions taken when handling chemicals should be observed.
Provide eyewash station at the workplace.
7.2 Conditions for safe storage, including any incompatibilities
Store in original container, tightly closed at room temperature.
Keep away from food and animal feed.
7.3 Specific end use(s)
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SECTION 8: Exposure controls/personal protection

8.1 Control parameters:
Appropriate engineering controls
Ensure good exhaust ventilation at the workplace.
Provide eyewash station at the workplace.

Exposure limits:
Swedish limit values (AFS 2023:14)
None established

British limit values (EH40/2005 Workplace exposure limits)
None established

DNEL

Sodium nitrite (7632-00-0)	Long-term exposure – Workers Systemic effects, inhalation: 2 mg/m^3 Short-term exposure – Workers Systemic effects, inhalation: 2 mg/m^3
Boric acid (10043-35-3)	Long-term exposure – Workers Systemic effects, inhalation: 8.3 mg/m^3 Long-term exposure – Workers Systemic effects, dermal: 392 mg/kg Long-term exposure – Consumers Systemic effects, Inhalation: 4.15 mg/m^3 Long-term exposure – Consumers Systemic effects, dermal: 196 mg/kg Long-term exposure – Consumers Systemic effects, oral: 0.98 mg/kg Short-term exposure – Consumers Systemic effects, oral: 0.98 mg/kg

SECTION 8: Exposure controls/personal protection (…)

Sodium 4(or 5)-methyl-1H-benzotriazolide (64665-57-2)	Long-term exposure – Workers Systemic effects, inhalation: 8.8 mg/m³ Long-term exposure – Workers Systemic effects, dermal: 0.3 mg/kg Long-term exposure – Consumers Systemic effects, inhalation: 0.00035 ppm Long-term exposure – Consumers Systemic effects, dermal: 0.01 mg/kg Long-term exposure – Consumers Systemic effects, ingestion: 0.01 mg/kg

PNEC

Sodium nitrite (7632-00-0)	0.0054 mg/l	Freshwater
Sodium nitrite (7632-00-0)	0.00616 mg/l	Sea water
Sodium nitrite (7632-00-0)	0.0054 mg/l	Intermittent release
Sodium nitrite (7632-00-0)	0.0195 mg/kg	Freshwater sediment
Sodium nitrite (7632-00-0)	0.0223 mg/kg	Seawater sediment
Sodium nitrite (7632-00-0)	0.00073 mg/kg	Ground
Sodium nitrite (7632-00-0)	21 mg/l	Water treatment plant
Boric acid (10043-35-3)	2.9 mg/l	Freshwater
Boric acid (10043-35-3)	13.7 mg/l	Intermittent release
Boric acid (10043-35-3)	2.9 mg/l	Saltwater
Boric acid (10043-35-3)	5.7 mg/kg	Soil
Boric acid (10043-35-3)	10 mg/l	Water treatment plant
Sodium 4(or 5)-methyl-1H-benzotriazolide (64665-57-2)	0.008 mg/l	Freshwater
Sodium 4(or 5)-methyl-1H-benzotriazolide (64665-57-2)	0.008 mg/l	Saltwater
Sodium 4(or 5)-methyl-1H-benzotriazolide (64665-57-2)	0.086 mg/l	Intermittent release
Sodium 4(or 5)-methyl-1H-benzotriazolide (64665-57-2)	39.4 mg/l	Water treatment plant
Sodium 4(or 5)-methyl-1H-benzotriazolide (64665-57-2)	0.003 mg/kg	Freshwater sediment
Sodium 4(or 5)-methyl-1H-benzotriazolide (64665-57-2)	0.003 mg/kg	Saltwater sediment
Sodium 4(or 5)-methyl-1H-benzotriazolide (64665-57-2)	0.002 mg/kg	Soil

8.2 Exposure controls:

General protective and hygiene measures

Wash hands before breaks and after work.

Handle in accordance with good industrial hygiene and safety practice.

Individual protection measures, such as personal protective equipment:

Always consult a competent person/supplier when selecting personal protective equipment.

Respiratory protection

In case of insufficient ventilation, respiratory protection adapted for the purpose must be used.

Eye protection

Wear tightly fitting protective goggles if there is a risk of splashing. EN166

Hand protection

Use chemical resistant protective gloves. (e.g. butyl rubber, nitrile) EN374

When selecting gloves, several parameters should be taken into account, use, handling, break thru time.

Clothing requirements:

Wear chemical-resistant protective clothing.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Straw-colored
Odour	Weak
Melting point/freezing point (°C)	Not determined
Boiling point or initial boiling point and boiling range (°C)	99
Flammability (°C)	Not determined
Lower and upper explosion limit	Not determined
Flash point (°C)	Not determined
Auto-ignition temperature (°C)	Not determined
Decomposition temperature (°C)	Not determined
pH	Not determined
Kinematic viscosity	Not determined
Solubility	Soluble in water
Partition coefficient n-octanol/water (log value)	Not determined
Vapour pressure	Not determined
Density and/or relative density (20°C)	1,161
Relative vapour density	Not determined
Particle characteristics	Not relevant. The product is a liquid.

9.2 Other information
No further information available.

SECTION 10: Stability and reactivity

10.1 Reactivity
The product is stable under recommended storage and handing conditions.
10.2 Chemical stability
The product is stable under recommended storage and handing conditions.
10.3 Possibility of hazardous reactions
No known.
10.4 Conditions to avoid
Do not allow dehydration.
10.5 Incompatible materials
Avoid contact with the following materials: Acids. Oxidizing materials. Reducing agents. Amines.
10.6 Hazardous decomposition products
No hazardous decompositions products known under recommended handing conditions.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
See also section 4. (Most important symptoms and effects, both acute and delayed)
Irritating/corrosive properties
Causes serious eye irritation.
Acute toxicity
Harmful if swallowed.
Toxicology data
Toxicology data about this preparation is not available.

SECTION 11: Toxicological information (…)

Toxicology data for the containing components:

Sodium nitrite (7632-00-0)	LD_{50} Oral rat: 85 mg/kg LC_{50} Inhalation rat 4h: 5.5 mg/m^3
Boric acid (10043-35-3)	LD_{50} Oral rat: >3765 mg/kg LC_{50} Inhalation: >2 mg/m^3 LD_{50} Dermal rabbit: 2000 mg/kg
Sodium 4(or 5)-methyl-1H-benzotriazolide (64665-57-2)	LD_{50} Oral: 735 mg/kg OECD401 LD_{50} Dermal rabbit: >2000 mg/kg OECD402

STOT-single exposure -repeated exposure.
No known.
Routes of exposure
Eyes and skin, ingestion and inhalation.
Allergenic potential
May cause an allergic skin reaction.
Carcinogenicity, mutagenicity and toxicity for reproduction
This product is not classified as carcinogen, mutagen and toxic for reproduction.
Aspiration Hazard
No
11.2 Information on other hazards
Does not contain an endocrine disruptor (EDC) in a concentration of ≥ 0.1%.

SECTION 12: Ecological information

This product is not classified as dangerous for the environment.
Do not flush into the sanitary sewer system.
12.1 Toxicity
Toxicology data about this preparation is not available.

Toxicology data for the containing components:

Sodium nitrite (7632-00-0)	LC_{50} Fish 96h: 0.54 - 26.3 mg/l Species: Salmo gairdneri EC_{50} Algae 72h: >100 mg/l Species: Scenedesmus subspicatus LC_{50} Daphnia 48h: 15.4 mg/l OECD 202 LC_{50} Daphnia 96h: 4.93 mg/l
Boric acid (10043-35-3)	LC_{50} Fish 96h: 79.7 mg/l Species: Pimephales promelas LC_{50} Daphnia 48h: 133 mg/l EC_{50} Algae 72h: 40 mg/l Species: Pseudokirchneriella subcapitata
Sodium 4(or 5)-methyl-1H-benzotriazolide (64665-57-2)	LC_{50} Fish 96h: 180 mg/l Species: Danio rerio OECD 203 EC_{50} Daphnia 48h: 8.58 mg/l OECD202 ErC_{50} Algae 72h: 53 mg/l Species: Skeletonema costatum ErC_{50} Algae 72h: 75 mg/l Species: Pseudokirchneriella subcapitata EC_{50} Algae 72h: 29 mg/l: Species Pseudokirchneriella sucapitata. EC_{50} Daphnia 21d: >18.4 - 37.6 mg/l OECD202 NOEC Daphnia 21d: 18.4 mg/l LOEC Daphnia 21d: 37.6 mg/l OECD211
1,2-benzisothiazol-3(2H)-one (2634-33-5)	EC_{50} Activated sludge 3h: 13 mg/l OECD209 EC_{20} Activated sludge 3h: 3.3 mg/l OECD209
Methylisothiazolinone (2682-20-4)	EC_{50} Activated sludge 3h: 34.6 mg/l EC_{20} Activated sludge 3h: 2.8 mg/l

SECTION 12: Ecological information (…)

12.2 Persistence and degradability
Sodium nitrite (7632-00-0) - Inorganic product that cannot be eliminated from water by biological purification processes. It can be oxidized to nitrate by microorganisms. Can also be reduced to nitrogen.
Boric acid (10043-35-3) – Degrades in soil to natural boron.
Sodium 4(or 5)-methyl-1H-benzotriazolide (64665-57-2) – 4% in 28d. Not readily biodegradable.
1,2-Benzisothiazol-3(2H)-one (2634-33-5). 0.04D
Methylisothiazolinone (2682-20-4) <0.08D
12.3 Bioaccumulative potential
Sodium nitrite (7632-00-0) - Accumulation in organisms is not expected.
Boric acid (10043-35-3) – Not expected to bioaccumulate
Sodium 4(or 5)-methyl-1H-benzotriazolide (64665-57-2) – logPow: 1.083 - 1.091. OECD117. BCF: 2.42
1,2-Benzisothiazol-3(2H)-one (2634-33-5). logPow: 0.7
Methylisothiazolinone (2682-20-4) logPow: <0.32
12.4 Mobility in soil
Sodium nitrite (7632-00-0) - Adsorption to solid soil particles is not expected.
Boric acid (10043-35-3) – Does not bioaccumulate
12.5 Results of PBT and vPvB assessment
This product is not considered to contain any substances that meet the criteria for classification as PBT or vPvB substances in a concentration of ≥0.1%.
12.6 Endocrine disrupting properties
Does not contain an endocrine disruptor (EDC) in a concentration of ≥ 0.1%.
12.7 Other adverse effects
No known.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
The product
This product or residues of this product are classified as hazardous waste.
Dispose of in accordance with local authority requirements.
Do not flush into surface water or sanitary sewer system.
Suggested EWC code:
e.g. 07 06 04* other organic solvents, washing liquids and mother liquors
Disposal of Packaging
Well cleaned packaging could be left for recycling

SECTION 14: Transport information

The product is not classified as dangerous goods according to ADR/RID, IMDG, IATA-DGR.
14.1 UN number or ID number
-
14.2 UN proper shipping name
-
14.3 Transport hazard class(es)
-
14.4 Packing group
-
14.5 Environmental hazards
Marine pollutant: No
14.6 Special precautions for user
-

SECTION 14: Transport information (…)

14.7 Maritime transport in bulk according to IMO instruments
-

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Classification according to Regulation (EC) No. 1907/2006 annex II and EC/2020/878. EH40/2005.
(EU) REACH Annex XVII
None listed.
(EU) Candidate list of SVHC substances
Boric acid (10043-35-3)
(EU) REACH Annex XIV
None listed.
15.2 Chemical safety assessment
No conducted.

SECTION 16: Other information

The full text of Hazard statement Codes listed under section 3
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.
H336 May cause drowsiness or dizziness.
H360FD May damage fertility. May damage the unborn child.
H361f Suspected of damaging fertility.
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.

This information is provided for health and safety assessments by an industrial user. Reference should be made to any relevant local or national health, safety, and environmental legislation.

Version 1: 2025-01-30
Safety data sheet according to Regulation (EC) No. 1907/2006 annex II and EC/2020/878.

Sources
Safety data sheet provided by the manufacturer.
CLP-regulation, www.kemi.se, EH40/2005. www.echa.europa.eu (Databases)

SECTION 16: Other information (…)

Abbreviations explanations

ADR: International Carriage of Dangerous Goods by Road
BCF: Bio Concentration Factor
CAS-nr: Chemical Abstracts Service number
DNEL: Derived No Effect Level
EC_{50}: Effect Concentration
EG-nr: A substance number i Einecs, Elincs or in No-Longer Polymers List.
IMDG: International Maritime Dangerous Goods Code.
LC_{50}: Lethal Concentration
LD_{50}: Lethal Dose
IC_{50}: Median Inhibition Concentration
NOEC: No Observed Effect Concentration
PBT-substance: Persistent, Bio accumulative and Toxic substances.
PNEC: Predicted No Effect Concentration
vPvB-substance: Very persistent and Very Bio accumulative substances.