

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

1.1. Product identifier

Trade name	Marisol CC
Article No.	24-4540
UFI code	XS14-U035-X00E-P9E8

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

Product type	Corrosion Inhibitor
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	Skin corrosion, hazard category 1B Serious eye damage, hazard category 1 Specific Target Organ Toxicity — Single exposure, hazard category 3 - respiratory tract irritation
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Hazard statements	H314, H318, H335
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2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms



Signal word Danger

Hazard statements H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.

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Precautionary statements

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

More information

Contains: 2-diethylaminoethanol

2.3. Other hazards

Other hazards

This mixture does not contain any REACH registered substances that are assessed to be a PBT or a vPvB.

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
2-Diethylaminoethanol	100-37-8 202-845-2 01-2119488937-14 603-048-00-6	18 - 19%	Flam. Liq. 3, Acute Tox. 4 - oral, Acute Tox. 3 - dermal, Skin Corr. 1B, Acute Tox. 3 - inhalation, STOT SE 3 - resp. tract irrit.	H226, H302, H311, H314, H331, H335 - -	STOT SE 3; H335: C ≥ 5 %

Substance additional information

Regulation (EC) No 648/2004 on detergents: Non-ionic surfactants 15-< 30%.
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

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Rinse nose and mouth with water. Consult a physician.

Skin contact

Remove contaminated clothing. Rinse the skin immediately with lots of water. Consult a physician.

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.
Seek medical attention immediately.

Ingestion

If the injured person is fully conscious, give him/her a couple of glasses of milk or water immediately. DO NOT INDUCE VOMITING! Consult a physician for specific advice.

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

Most important symptoms and effects, both acute and delayed

Causes severe caustic burns to skin and eyes.
May cause serious eye damage.
May cause respiratory irritation.
Overexposure may cause: vomiting, nausea.

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

Foam, dry powder or water fog.

5.2. Special hazards arising from the substance or mixture

Special hazards arising from the substance or mixture

Nitrous gases (toxic if inhaled) may be formed on heating or in a fire.

5.3. Advice for firefighters

Special protective equipment for fire-fighters

Containers in the vicinity of fire should be moved immediately or cooled with water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions, protective equipment and emergency procedures

Ensure good ventilation. Wear suitable protective equipment. Avoid inhalation and contact with the skin and eyes. Prevent further leakage or spillage if safe to do so.

6.2. Environmental precautions

Environmental precautions

Prevent entry to sewers and public waters. Notify the responsible authority in the event of contamination of soil or water, or discharges into sewage systems.

6.3. Methods and material for containment and cleaning up

Methods and material for containment and cleaning up

Spillage should be banked with sand, earth or similar material and collected into suitable enclosed containers for further destruction. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations.

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	Ensure good ventilation. Avoid inhalation and contact with the skin and eyes. Vapours may form ignitable mixture with air. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy. Wear personal protective equipment.
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General hygiene	Emergency shower and eyewash shall be available at the work site. Wash hands before breaks and immediately after handling the product.
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7.2. Conditions for safe storage, including any incompatibilities

Conditions for safe storage, including any incompatibilities	Keep locked-up. Keep in a frost-free place. Store in a dry place. Segregate from acids and acid forming substances. The product should be stored in sealed containers at room temperature or cooler. Keep in properly labelled containers. Suitable materials for containers: carbon steel (iron), Stainless steel 1.4401, Stainless steel 1.4301 (V2), High density polyethylene (HDPE), glass, Low density polyethylene (LDPE).
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7.3. Specific end use(s)

Specific end use(s)	Identified uses for this product are detailed in Section 1.2.
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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.
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Eye / face protection	Use goggles or face shield (EN 166).
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Hand protection	Protective gloves complying with EN 374. Nitrile rubber.
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Other skin protection	Wear suitable protective clothing.
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Respiratory protection	In case of inadequate ventilation wear respiratory protection. Filter A or Combination filter A/P3.
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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
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Colour	Colourless
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Odour	Slight odour
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Melting point / freezing point	No data available
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Boiling point or initial boiling point and boiling range	> 62 °C
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Flammability	No data available
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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	11.5 (concentrate).
Kinematic viscosity	No information available
Solubility	Soluble in water
Partition coefficient n-octanol/water	No information available
Vapour pressure	No information available
Density and/or relative density	No information available
Relative vapour density	No information available
Evaporation Rate	No information available
Particle characteristics	Not relevant.

9.2. Other information

Other information	Flash point of 2-Diethylaminoethanol: 51.5°C.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Stable under normal usage and storage conditions. Remarks: Forms no flammable gases in the presence of water.
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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	The progress of reaction is exothermic. Reacts with oxidizing agents. Reacts with halogenated compounds. Reacts with acids. Reacts with acid chlorides.
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10.4. Conditions to avoid

Conditions to avoid	Avoid static electricity and protect the product from heat, sparks and open flame.
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10.5. Incompatible materials

Incompatible materials	Avoid contact with strong oxidizing agents and acids. Incompatible with acid chlorides and acid anhydrides.
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10.6. Hazardous decomposition products

Hazardous decomposition products	No harmful degradation products during normal handling.
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SECTION 11: Toxicological information

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

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

Product / Substance name CAS / EC no.	Dose descriptor	Value / Dose	Exposure route	Duration of exposure	Test animals	Method / Guideline
2-Diethylaminoethanol 100-37-8 / 202-845-2	LD50	1320 mg/kg bw	Oral	-	Rat	OECD 401
2-Diethylaminoethanol 100-37-8 / 202-845-2	LC50	4.6 mg/l	Inhalation	4h	Rat	Estimated by Haber rule from an IRT.
2-Diethylaminoethanol 100-37-8 / 202-845-2	LD50	855 mg/kg bw	Dermal	-	Guinea pig	-

Skin corrosion/irritation Causes severe skin burns and eyes.

Serious eye damage/irritation Causes serious eye damage.

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.

Repeated dose toxicity 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 May cause respiratory irritation.

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.

Symptoms related to the physical, chemical and toxicological characteristics Inhalation of vapors may cause burning in the nose and throat, sneezing, coughing and breathing difficulties. Inhalation of high concentrations of mist entails a risk of lung injury.

May cause chemical burns with blisters and sores. Even some risk of this with dilute solutions.

Splashes causes pain and burns. Risk of permanent visual impairment.

Ingestion may cause severe burns with pain, vomiting, abdominal pain and possibly severe general effect (shock) and kidney damage. Risk of permanent damage due to scarring of burns in the esophagus or stomach.

11.2. Information on other hazards

Endocrine disrupting properties Contains no substances with endocrine disrupting properties.

Other information No information available

SECTION 12: Ecological information

12.1. Toxicity

Toxicity There are no ecotoxicological data on the product, only on the ingredients.

Acute fish toxicity LC50(96h)(2-diethylaminoethanol): 147mg/l (Leuciscus idus)

Acute algae toxicity EC50(72h)(2-diethylaminoethanol): 62.3 mg/l (Scenedesmus subspicatus).

Acute crustacean toxicity EC50(48h)(2-diethylaminoethanol): 165 mg/l (Daphnia magna)

12.2. Persistence and degradability

Persistence and degradability The component surfactants are easily biodegradable according to Regulation (EC) No 648/2004 on detergents.

12.3. Bioaccumulative potential

Bioaccumulative potential Bio-accumulation is unlikely.

12.4. Mobility in soil

Mobility No information available

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment No information available

12.6. Endocrine disrupting properties

Endocrine disrupting properties Contains no substances with endocrine disrupting properties.

12.7. Other adverse effects

Other adverse effects The product is alkaline and may raise the pH locally, if discharged into water. pH 9 is toxic to fish. pH >8.5 has a detrimental effect on algae. Available data on raw materials suggests that only large local emissions may pose a risk of poisoning of aquatic organisms.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal considerations The product should be disposed of as hazardous waste. Dispose of any product, residue or packing material according to national and local regulations. Do not dispose of waste into sewer.

Packaging Contaminated packaging must be disposed of as product. Empty, cleaned packaging must be sorted for recycling.

Waste code	Description
20 01 29*	detergents containing hazardous substances
07 06 01*	aqueous 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 UN 2735

14.2. UN proper shipping name

Amines, liquid, corrosive, N.O.S (2-diethylaminoethanol)

IMDG proper shipping name Amines, liquid, corrosive, N.O.S (2-diethylaminoethanol)

14.3. Transport hazard class(es)

Label 8

ADR / RID Class 8

ADR / RID Classification code C7

ADR / RID hazard identification number 80

IMDG Class 8

14.4. Packing group

Packing group II

14.5. Environmental hazards

Environmental hazards The product is not classified as environmentally hazardous.

IMDG Marine Pollutant No

14.6. Special precautions for user

Special precautions for user Tunnel restriction code: E
IMDG EmS: F-A, S-B

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).
Regulation (EC) No 1272/2008 of the European Parliament and of the Council.
EUROPEAN PARLIAMENT AND COUNCIL REGULATION (EC) No 648/2004 on detergents.
The International Maritime Dangerous Goods (IMDG) Code, 2020 Edition.
ADR 2021: Agreement concerning the International Carriage of Dangerous Goods by Road, ECE/TRANS/300.

National regulations Local laws and regulations should be carefully observed.

15.2. Chemical safety assessment

Chemical safety assessment A chemical safety assessment has been performed for:
2-diethylaminoethanol

SECTION 16: Other information

Changes to previous revision

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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.
EC50: The concentration of a substance that affects 50% of a population over a given period of time.

References to key literature and data sources

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

Evaluation methods for classification

The classification is based on the addition method according to Regulation (EC) No 1272/2008 (CLP).

Phrase meaning

Flam. Liq. 3 - Flammable liquids, hazard category 3
Acute Tox. 4 - oral - Acute toxicity, oral, hazard category 4
Acute Tox. 3 - dermal - Acute toxicity, dermal, hazard category 3
Skin Corr. 1B - Skin corrosion, hazard category 1B
Acute Tox. 3 - inhalation - Acute toxicity, inhalation, hazard category 3
STOT SE 3 - resp. tract irrit. - Specific Target Organ Toxicity — Single exposure, hazard category 3 - respiratory tract irritation
H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.
H331 Toxic if inhaled.
H335 May cause respiratory irritation.