

Safety Data Sheet
according to 1907/2006/EC, Article 31

Printing date 09.02.2009

Revision: 09.02.2009

1 Identification of the substance/preparation and of the company/undertaking

- **Product details**
- **Trade name:** DINITROL 510
- **Application of the substance / the preparation** Anticorrosion additive
- **Manufacturer/Supplier:**
EFTEC Ltd. Rhigos, Aberdare, Mid-Glamorgan CF44 9UE, United Kingdom
EFTEC Aftermarket GmbH Pyrmonterstr. 76 D-32676 Lügde
- **Further information obtainable from:** +44(0)16 85 81 54 00 Q&E Plasticsols
- **Information in case of emergency:** +44(0)16 85 81 54 00



2 Hazards identification

- **Hazard description:**
C Corrosive
- **Information concerning particular hazards for human and environment:**
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R 34 Causes burns.
R 37 Irritating to respiratory system.
- **Classification system:**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

3 Composition/information on ingredients

- **Chemical characterization**
- **Description:** Mixture: consisting of the following components.

- **Dangerous components:**

CAS: 141-43-5	2-aminoethanol	 C,  Xn; R 20/21/22-34	10-25%
EINECS: 205-483-3			

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

4 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.
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
Remove contaminated clothing. Wash skin with soap and water.
Immediately wash with water and soap and rinse thoroughly.

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- Immediately rinse with water.*
- **After eye contact:** *Rinse opened eye for several minutes under running water. Then consult a doctor.*
- **After swallowing:**
Call for a doctor immediately.
Drink plenty of water and provide fresh air. Call for a doctor immediately.

* 5 Fire-fighting measures

- **Suitable extinguishing agents:**
Carbon dioxide
Fire-extinguishing powder
Foam
Water haze
- **For safety reasons unsuitable extinguishing agents:** *Water with full jet*
- **Special hazards caused by the substance, its products of combustion or resulting gases:**
In case of fire, the following can be released:
Nitrogen oxides (NO_x)
- **Protective equipment:** *Wear self-contained respiratory protective device.*

* 6 Accidental release measures

- **Person-related safety precautions:**
Ensure adequate ventilation
Keep away from ignition sources.
Avoid contact with skin, eyes and clothes.
Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:** *Do not allow to enter sewers/ surface or ground water.*
- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.

* 7 Handling and storage

- **Handling:**
- **Information for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
Keep away from heat and direct sunlight.
- **Information about fire - and explosion protection:** *Keep ignition sources away - Do not smoke.*
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** *No special requirements.*
- **Information about storage in one common storage facility:** *Not required.*
- **Further information about storage conditions:**
Store receptacle in a well ventilated area.
Keep container tightly sealed.
Protect from heat and direct sunlight.
- **Minimum storage temperature:** *> 0°C*

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8 Exposure controls/personal protection

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

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

141-43-5 2-aminoethanol

WEL	Short-term value: 7.6 mg/m ³ , 3 ppm
	Long-term value: 2.5 mg/m ³ , 1 ppm
Sk	

· **Additional information:** The lists valid during the making were used as basis.

· **Personal protective equipment:**

· **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.

Avoid contact with the eyes and skin.

· **Respiratory protection:** Use suitable respiratory protective device in case of insufficient ventilation.

· **Protection of hands:**



Protective gloves

· **Material of gloves**

PVC gloves

Chloroprene rubber, CR

Nitrile rubber, NBR

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.

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:** Protective work clothing

9 Physical and chemical properties

· **General Information**

Form:	Liquid
Colour:	Green
Odour:	Characteristic

· **Change in condition**

Melting point/Melting range: Undetermined.

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Boiling point/Boiling range:	100°C
· Flash point:	> 100°C (ISO 2719)
· Ignition temperature:	385°C
· Self-igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Vapour pressure at 20°C:	27.4 hPa
· Density at 20°C:	1.01 g/cm ³
· Solubility in / Miscibility with water:	Fully miscible.
· pH-value at 20°C:	12.2
· Viscosity:	
Dynamic at 20°C:	1 mPas
· Solvent content:	
Organic solvents:	25.0 %
Water:	75.0 %

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions** No dangerous reactions known.
- **Dangerous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

· Acute toxicity:

· LD/LC50 values relevant for classification:

141-43-5 2-aminoethanol

Oral	LD50	2050 mg/kg (rat)
Dermal	LD50	1000 mg/kg (rabbit)

· Primary irritant effect:

· **on the skin:** Caustic effect on skin and mucous membranes.

· **on the eye:** Strong caustic effect.

· **Sensitization:** No sensitizing effects known.

· Additional toxicological information:

This product may cause skin- and eye irritation and may cause burns.

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Harmful

Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

· **Inhalation:** Irritating to respiratory tract.

· **Ingestion:**

May cause similar symptoms as for inhalation.

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May cause internal injuries.

12 Ecological information· **Information about elimination (persistence and degradability):****141-43-5 2-aminoethanol**

BOD28/COD >80 % (.)

· **Other information:** The product is biodegradable.· **Ecotoxicological effects:**· **Acquatic toxicity:****141-43-5 2-aminoethanol**

EC50 10-100 mg/l (daphnia)

LC50/96h 170 mg/l (fish)

· **General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralized.

13 Disposal considerations· **Product:**· **Recommendation**

Dispose of in accordance with Local Authority requirements

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

· **European waste catalogue**

07 00 00 WASTES FROM ORGANIC CHEMICAL PROCESSES

07 01 00 wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals

07 01 99 wastes not otherwise specified

· **Uncleaned packaging:**· **Recommendation:** Disposal must be made according to official regulations.· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.**14 Transport information**· **Land transport ADR/RID (cross-border)**· **ADR/RID class:** 8 (C7) Corrosive substances.· **Danger code (Kemler):** 80· **UN-Number:** 2491· **Packaging group:** III· **Hazard label** 8

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· **Description of goods:** 2491 ETHANOLAMINE SOLUTION, mixture

· **Maritime transport IMDG:**



- **IMDG Class:** 8
- **UN Number:** 2491
- **Label** 8
- **Packaging group:** III
- **EMS Number:** F-A,S-B
- **Marine pollutant:** No
- **Proper shipping name:** ETHANOLAMINE SOLUTION, mixture

· **Air transport ICAO-TI and IATA-DGR:**



- **ICAO/IATA Class:** 8
- **UN/ID Number:** 2491
- **Label** 8
- **Packaging group:** III
- **Proper shipping name:** ETHANOLAMINE SOLUTION, mixture

* 15 Regulatory information

· **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

· **Code letter and hazard designation of product:**



C Corrosive

· **Hazard-determining components of labelling:**

2-aminoethanol

· **Risk phrases:**

20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

34 Causes burns.

37 Irritating to respiratory system.

· **Safety phrases:**

1/2 Keep locked up and out of the reach of children.

9 Keep container in a well-ventilated place.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

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56 *Dispose of this material and its container to hazardous or special waste collection point.***· National regulations:**

The product is subject to be labeled according with the prevailing version of the regulations on hazardous substances.

· Technical instructions (air):

Class	Share in %
Water	50-100
NK	10-25

· Waterhazard class: *Water hazard class 1 (Self-assessment): slightly hazardous for water.*

· EU-VOC: 25.00 %

16 Other information

The information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our product from the point of view of safety requirements and is not intended to guarantee any particular property.

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 R-phrases

20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

34 Causes burns.

· Department issuing MSDS: Q&E Department

· Contact:

J. Maxwell

john.maxwell@eftecltd.co.uk

· * Data compared to the previous version altered.