

MATERIAL SAFETY DATA SHEET - MSDS

Date / renewed on: 11.10.2021

Product: **DazMode Protector**

1. Identification of the substance / preparation and company

Description:

DazMode Protector – Corrosion Blocker 50 ml

Use:

Antifreeze and anti-corrosion fluid for computer watercooled systems.

Emergency Phone Number:

Contact your National Anti Poison Centre.



2. Composition / Information on ingredients

Ingredients:

Ethylene-Glycol / Ethanediol, Inhibitors.

Hazardous components:

Ethanediol

Value	> (w/w) 90 %
CAS	107-21-1
EC	203-473-3
INDEX	603-027-00-1
Certificate	Xn
R-Phrase	22
S-Phrase	2 , 24/25 , 46



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For full text of R- and S-Phrases see under section 15.

3. Hazards identification

Classification of the substance or mixture

According to EC Directive 67/548/EEC or 1999/45/EC

Hazard symbol: Xn Harmful
R-phrases: R22 Harmful if swallowed.

According to Regulation (EC) No. 1272/2008 [CLP/GHS]

Hazard classes/categories Hazard Statements
Acute Tox. Cat. 4 H302 Harmful if swallowed.
STOT RE Cat. 2 H373 May cause damage to organs (kidney) through prolonged or repeated exposure

Label elements

According to Directive 67/548/EEC or 1999/45/EC („Preparations Directive“)
Advice on labelling: The product is subject to labelling. The classification was carried out according to the calculation procedure of the Preparations Directive (1999/45/EC).



Hazard symbol

Xn Harmful

R-phrases

R22 Harmful if swallowed.

S-phrases

S2 Keep out of reach of children.
S24/25 Avoid contact with skin and eyes.
S46 If swallowed, seek medical advice immediately and show this container or label.

According to Regulation (EC) No. 1272/2008 [CLP/GHS]



GHS07



GHS08

Signal word: Warning

Hazard Statement

H302 Harmful if swallowed.
H373 May cause damage to organs (kidney) through prolonged or repeated exposure.

Precautionary Statements (Prevention)

P260 Do not breathe vapor/mist/aerosol.
P264 Wash with plenty of water and soap thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.

Precautionary Statements (Response)

P312 Call a POISON CENTER or doctor/physician if you feel unwell. P301+P330 IF SWALLOWED: rinse mouth.

Precautionary Statements (Disposal)

P501 Dispose of contents/container to hazardous or special waste collection point.

Hazard determinant component for labelling: Ethane-1,2-diol / ethylene glycol.

Other hazards: No other hazards known.

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4. First Aid measures

Symptoms:

After Inhalation: **Tickle of the throat and heavy breathing may occur.**

After Skin contact: **Skin irritation may occur in the contact area.**

After Eye contact: **Irritation and reddening can occur.**

After Ingestion: **Can cause sickness and tickle of the throat.**

Measures:

After Inhalation: **Seek medical attention if ill effect or irritation develops.
Remove to fresh air.**

After Skin contact: **Wash all exposed skin area with mild soap and water, followed by warm water rinse.**

After Eye contact: **Flush with lukewarm water for 15 minutes.**

After Ingestion: **Rinse mouth and drink water. Get medical advise.**

General Information: **Remove affected clothing.**

5. Fire-Fighting measures

Extinguishing media: **Use extinguishing media appropriate for surrounding fire.**

Protective equipment: **Use non-air circulation depended respirator. Protect eyes and skin with demanded clothes and protections.**

Risk of exposure: **Sets free gases and smoke during combustion.**

Further details: **Danger level is depending on burning materials and conditions.
Contaminated water for firefighting must be disposed after governmental regulations.**

6. Accidental release measures

Personal precautions:

Ensure adequate ventilation. Use personal protective clothing.

Environmental precautions:

Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/ groundwater.

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Cleaning process after spillage / leakage:

In great quantities: Drain the product.
Remains: Clean up with liquid binding materials.

Additional information:

Slippery when spillage on ground.

7. Handling and storage

Handling:

Ensure thorough ventilation of stores and work areas. Do not breathe vapor/mist/aerosol. Avoid contact with skin and eyes. Close the bottle directly after usage. Avoid all unnecessary exposure. Handle in accordance with good industrial hygiene and safety procedures.

Storage:

Store the reservoir at a cool, dry and sun-protected place.
Original HDPE / PET bottle is advised.

8. Exposure controls / Personal protection

DNEL Values

Ethane-1,2-diol, EC Number 203-473-3, CAS Number 107-21-1

Route of exposure / Personnel	Duration of exposure / effect	Value
Skin / Workers	Long-term / systemic effects	106 mg/kg body weight/day
Inhalation / Work	Long-term / local effects	35 mg/m ³
Skin / Consumers	Long-term / systemic effects	53 mg/kg body weight/day
Inhalation / Consumers	Long-term / local effects	7 mg/m ³

PNEC Values

Ethane-1,2-diol, EC Number 203-473-3, CAS Number 107-21-1

Environmental compartment	Value
Water (fresh water)	10 mg/l
Water (sea water)	1 mg/l
Water (intermittent release)	10 mg/l
Sediment (fresh water)	20.9 mg/kg sediment
Soil	1.53 mg/kg soil
Sewage treatment plant	199.5 mg/l

General protection and hygiene measures:

Do not breath Gases/Vapors/Aerosols. Avoid contact with skin and eyes. Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is recommended.

Personal protection:

Hand protection: **Wear gloves.**

Eye protection: **Use splash goggles when eye contact due to splashing is possible.**

Skin protection: **If skin contact or contamination of clothing is likely, protective clothing should be worn.**

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9. Physical and chemical properties

Physical state:	liquid
Color:	specifications: clear
Odor:	characteristic
Solubility in water:	mixable in all proportions
Ph-value (500g/l, 20 °C):	approx. 7,0 - 9,0
Solid point:	< -18 °C
Flash point:	> 120 °C
Viscosity, kinematically:	20 - 30 mm²/s - 20 °C
Density:	1,12 g/cm³ - 20 °C
Vapor pressure:	2 mbar - 20 °C

10. Stability and reactivity

Reactivity:	No hazardous reactions if stored and handled as prescribed/indicated.
Corrosion to metals:	No corrosive effect on metals.
Chemical stability:	The product is stable if stored and handled as prescribed/indicated.
Possibility of hazardous reactions:	No hazardous reactions if stored and handled as prescribed/indicated.
Conditions to avoid:	No conditions to avoid anticipated.
Incompatible materials:	Substances to avoid: strong oxidising agents.
Hazardous decomposition products:	No hazardous decomposition products if stored and handled as prescribed/indicated.

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TFC MSDS pursuant to 91/155/EWG

Date / renewed on: 11.10.2011

Product: **Feser Base - FB - Corrosion Blocker**

11. Toxicological information

LD50/oral/Rat > 2 g/kg

LD50/dermall/Rabbit > 2 g/kg

Primary skin irritation/Rabbit: **No irritations.**

Primary mucous membrane irritation/Rabbit: **No irritations.**

Details of DazMode Protector:

Experience at humans:

Already seconds after swallowing DazMode Protector following symptoms occur: headache, feeling of sickness and regurgitation.

Further details for Ethanediol:

Experience at humans:

1. Effects on central nervous system (CNS) and gast-rointestinal tract (nausea, vomiting, dizziness, reflex inhibition, epileptiform seizures, convulsions, coma, respiratory arrest, circulatory collapse) within 30 min to 12 h.

2. Effects on cardiac and pulmonary function (acceleration of pulse and breathing, increased blood pressure, possibly inflammatory mucosal changes, pulmonary ede- ma, congestive heart failure) within 12-24 h.

3. Renal impairment (oliguria to anuria, degeneration of the kidney tissue with oxalate crystal deposits) within 24-72 h.

4. Degeneration of the central nervous system (double-sided facial paralysis, pupillary inequality, blurred vision, dysphagia, hyperreflexia, incoordination, cerebral oedema, deposit of calcium oxalate in the brain) within 6-14 days.

Experimental/calculated data: Mean lethal dose:

1.2-1.5 g/kg, oral, adults. The symptoms/diagnosis/findings mentioned may result with smaller doses.

12. Ecological information

Eco toxicity:

Fish:	Leuciscus idus/LC50 (96 h): > 100 mg/l
Aquatic invertebrates:	Daphnia magna/EC50 (48 h): > 100 mg/l
Aquatic plants:	Algen/EC50 (72 h): > 100 mg/l

Extra information:

This product has not been tested yet. All statements are derived from the properties of the components.

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13. Disposal considerations

Recommendations for the product:

The product must be disposed or incinerated in accordance with local authority regulations, e.g. taken to special waste incineration plant.

Recommendations for the packaging: Uncontaminated packs can be re-used. Packaging that cannot be cleaned should be disposed of as product waste.

Purified bottle:

Can be disposed with normal trash. Dual System Licence (German)



Unpurified bottle:

Bottle can be reused if not contaminated.

14. Transport information

Land transport - ADR/RID: Not classified as a dangerous good under transport regulations.

Inland waterway transp. - ADN: Not classified as a dangerous good under transport regulations.

Sea transport - IMDG: Not classified as a dangerous good under transport regulations.

Air transport - ICAO/IATA: Not classified as a dangerous good under transport regulations.

Conditions to avoid: Not classified as a dangerous good under transport regulations.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not evaluated

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TFC MSDS pursuant to 91/155/EWG

Date / renewed on: 11.10.2011

Product: **Feser Base - FB - Corrosion Blocker**

15. Regulatory information

Regulations of the EU (classifications) / National Regulations

EC-directives 1999/45/EC and 67/548/EEC:

Symbol(s):	Xn		Harmful
R-Phrase:	R22		Harmful if swallowed.
S-Phrase:	S2		Keep out of reach of children.
	S24/25		Avoid contact with skin and eyes.
	S46		If swallowed, seek medical advice immediately and show container or label.

Hazardous components for labeling: **1.2-ETHANDIOL**

Other regulations:

Classifications for VbF (Germany): **none**

Water-polluting class: **nwp (not water-polluting)**

16. Other informations

Full text of the classifications, including the indication of danger, the hazard symbols, the R-phrases, and the hazard statements, if mentioned in section 2 or 3. No classification of the product!

Xn Harmful

R22 Harmful if swallowed.

Acute Tox. Cat. 4 Acute Toxicity, Category 4

Acronyms used in this document in alphabetical order:

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).

ADR European agreement concerning the international carriage of dangerous goods by road (Accord européen relatif au transport des marchandises dangereuses par route).

ASTM American Society for Testing and Materials

CAS Chemical Abstract Service

CLP Classification, Labelling and Packaging

DEV German standard methods for water, waste water and sludge analysis. (Deutsche Einheitsverfahren zur Wasser-, Abwasser- und Schlammuntersuchung).

DIN German Standards Institute / German industrial norm (Deutsches Institut für Normung/Deutsche Industrienorm).

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DNEL	Derived No Effect Level
DOC	Dissolved organic carbon
EC50	Effective Concentration 50 %
GHS	Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
IATA	Verband für den internationalen Lufttransport (International Air Transport Association)
IBC	IBC Intermediate Bulk Container
ICAO	International Civil Aviation Organization
IMDG Code	International Maritime Dangerous Goods Code
INDEX Code	Identification Code for hazardous materials
LC50	Lethal Concentration 50 %
LD50	Lethal Dose 50 %
MARPOL	International Convention for the Prevention of Marine Pollution from Ships
NOAEL	No Observed Adverse Effect Level
OECD	Organization for Economic Cooperation and Development
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation and Authorization of Chemicals
RID	Regulations concerning the international carriage of dangerous goods by rail (Règle- ment concernant le transport International ferroviaire de marchandises Dangereuses).
TWA	Time Weighted Average
WEL	Workplace Exposure Limit

This safety data sheet is intended to provide information and recommendations as to:

. how to handle chemical substances and preparations in accordance with the essential requirements of safety precautions and physical, toxicological, and ecological data.

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