

Safety data sheet (in accordance with 91/155/EEC and TRGS 220)

Date of revision: 4.1.2006

REGONOL F

Date of printing: 24.1.2006

1 Material / preparation and company name

• Product details

Trade name : REGONOL F
Intended application : Special product for small, closed refrigeration units
Article number : 1590165

• Manufacturer/supplier

ef cooling
Ernst H. Furrer AG
Hüttenwiesenstrasse 8
CH-8108 Dällikon

• Informing entity

Ernst H. Furrer AG , Hr. D. Ritz < d.ritz@efcooling.com> Tel. +41 44 849 79 00 Fax +41 44 849 79 01

• Emergency information: / Advice centre for symptoms of poisoning

Toxicological information centre Switzerland, emergency services tel. 145 or +41 44 251 51 51

2 Composition/Information relating to the components

• Chemical characterisation

Trioxymethylene, phosphonate, colorant

Description:

tablets

Hazardous ingredients:

Index no.	EC-No.	CAS - No.	Designation	Geh. %	Hazard symbol	Risk
.	110-88-3	Trioxymethylene		> 80 %	Xn	20/ 22

3 Possible dangers

• Indication of danger

• Special hazard warnings for persons and the environment



Xn=Harmful



N = dangerous to the environment

R 20/22

Harmful if inhaled or swallowed

4 First-aid measures

• General instructions

Remove any clothing that is contaminated with the product

• In the event of inhaling:

 Bring affected persons into the fresh air

• In the event of skin contact:

 Wash affected areas of the body thoroughly with soap and water

• In the event of eye contact:

 Hold eyes open and immediately begin rinsing with water, thoroughly, for at least 15 minutes Consult a doctor if symptoms occur

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- **In the event of swallowing**
Rinse the mouth with water, drink copious amounts of water, induce vomiting, consult doctor

5 Fire fighting measures

- **Suitable extinguishing agents**
no restriction
- **Special hazards due to combustion products or the formation of gasses:**
combustible, formation of formaldehyde vapours possible
- **Special protective gear**
Only enter the hazard zone with contained breathing apparatus
- **Additional instructions**
Settle leaking vapours with water. Avoid the introduction of extinguishing water into surface water or underground water

6 Measures in the event of unintentional release

- **Personnel-related precautionary measures**
avoid contact with substance. Avoid inhalation of dust and vapours. Provide for fresh air in closed rooms.
- **Environmental protection measures**
Avoid introduction into waterways as far as possible.
- **Procedure for cleaning / collection**
Collect in dry state. Pass onto disposal. Post clean. Avoid the formation of dust.

7 Handling and storage

- **Handling**
Instructions for safe handling: Carry out work under a fume hood or in fresh air.
Do not inhale vapours. Wear gloves
Instructions for fire and explosion protection: n.a.
- **Storage**
Requirements for storage facilities and containers: Keep storage containers tightly closed. No metal containers
Additional instructions relating to storage conditions: **Maintain temperature** + 5°C to + 30°C as far as possible

8 Explosion limitation and personal protective equipment

- **Personal protective equipment**
General protection and hygiene measures
Keep away from foods, beverages and animal feed.
Thoroughly wash hands and face with soap and water prior to meal breaks
Avoid touching the eyes. Do not inhale vapours
Breathing apparatus : Required in the event of dust formation
Hand protection : Protective gloves made from nitrile-butadiene rubber 0.11 mm
Eye protection: Protective goggles

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9 Physical and chemical characteristics

- **Appearance:**

Form: solid

Colour: blue/white mottled

Odour: acrid

Safety-relevant data:

<u>Parameter</u>	<u>at T °C</u>	<u>Value</u>	<u>Unit</u>	<u>Method/Comment</u>
pH (saturated solution)	20	approx. 6		potentiometric
state change		approx. 100	°C	Melt point
Point of ignition		approx. 70	°C	
Ignition temperature		approx. 300	°C	
Explosion limit (dust)	lower approx. 10, upper approx. 70			vol % n.a.
Vapour pressure		approx. 3	hPa	n.a.
Specific gravity		approx. 1.2	kg/dm ³	
Solubility in water				limited

- **Additional information:** none

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** heat
- **Dangerous reactions:** possible with strong oxidizing agents, acids, alkalis, reducing agents
- **Dangerous decomposition products:** Formation of formaldehyde vapours possible

11 Toxicology information

- **Acute toxicology**

LC₅₀ (rat, inh): approx. 2 mg/l (4h)

LD₅₀ (rat, oral): approx. 600 mg/kg

LD₅₀ (rabbit derm.): ca. 10,000 mg/kg

- **Primary irritation**

After inhalation : Coughing

On the skin: : Skin irritation possible in the event of prolonged contact

In the eyes : Causes irritation

- **Sensitization**

Sensitization due to skin contact has not been observed, but cannot be ruled out.

- **Experience from practical application:**

Do not inhale vapours. The product is to be treated with the general care and attention given to chemicals

- **Additional toxicological information:**

The product can partially merge into secondary products. Secondary products can lead to a risk of sensitization and skin absorption. Formation of pulmonary oedema possible in the event of extended inhalation of vapours.

12 Ecology information

- **Biological decomposition:**

Biologically well degradable. (degradability practically 100% in 5 days)

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Ecotoxicity

Aquatic toxicology:

Fish:	LC ₅₀	Pimephales promelas	approx. 30 mg/l	(96 h)
Daphnia:	EC ₅₀	Daphnia magna	approx. 50 mg/l	(24 h)
Algae/bacteria:		The product is a bactericidal / algicide as directed		

Behaviour in sewage treatment facilities

No disturbance to be expected to adapted biological sewage treatment facilities if used as directed

13 Information relating to disposal

- **Product**

Recommendation: Send back to the supplier or pass on to an authorised collection agency

- **Uncleaned packaging**

Recommendation: Incineration plant

14 Transport regulations

- **Road transport (ADR/RID and GGVSE)**

Labelling of goods:

UN 1325, organic flammable solid, n.a.g. (trioxymethylene), 4.1.II

- **Inland waterway transportation ADN/ADNR:** not tested

- **Sea transportation IMDG/GGVSee :**

UN 1325, Flammable solid, organic, n.o.s. (Trioxymethylene), 4.1, II

Correct technical name: Environmentally hazardous substance, solid, n.o.s.

- **Air transport CAO, PAX**

Flammable solid, organic, n.o.s. (Trioxymethylene), 4.1, UN 1325, II

15 Regulations

- **Designation in accordance with EC directives / GefStoffV**



Xn= Harmful



N = dangerous to the environment

Xn = harmful

N = hazardous to the environment

Hazardous component(s) for labelling:

Trioxymethylene

- **Risks:**

R 20/22

Harmful if inhaled or swallowed

- **Safety:**

S 23 No not inhale vapours.

S 24/25 Avoid contact with skin and eyes

S 37 Wear suitable protective gloves and goggles when working

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- **National regulations**

Information relating to job activity restrictions: n.a.

Procedure in the event of accident : n.a. Accident number: n.a.

Combustible substances directive: n.a.

Clean Air Act: n.a.

Water Hazard Classification: 1 = Minor water hazard (self classification)

Other directives, restrictions and prohibitions: TRGS 900: none

16 Miscellaneous information

- **Further information**

Recommended use and restrictions:

Only use within the framework of the safety data sheet description or in accordance with instructions given by the applicable technical consultant.

Sources for the most important data:

General bibliographical reference

Statutory regulations and rules

Manufacturers tests and examinations

Own measurements

- **Data sheet issuing department:** Laboratory dept.

- **Contact:** Mr. D. Ritz, <d.ritz@efcooling.com>

- **Abbreviations used:** n.a. = No information available / information not applicable

- **Note:**

This safety data sheet has been written in accordance with the current state of information and to the best of our knowledge. It serves primarily to provide safety-relevant data and not to give application-related advice. No claims may be made in relation to its completeness and this may also not be inferred in terms of assured characteristics.

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