


1. Identification of the Substance/Preparation and Company

Trade Name	: STHAMEX-AFFF 3% FL				
Use of Preparation	: Fire Extinguishing Agent				
Manufacturer/Supplier	: Fabrik chemischer Präparate von Dr. Richard Sthamer GmbH & Co. KG Liebigstraße 5 D-22113 Hamburg Tel.: +49 (0)40/736168-0 Fax : +49 (0)40/736168-60 E-Mail: labor@sthamer.com Internet: http://sthamer.com				
Informing Department	: Laboratory, Tel.: +49 (0)40/736168-31				

2. Composition/Information on Ingredients

Chemical Charakterization	: Fire extinguishing foam concentrate based on fluorinated and non-fluorinated surfactants				
Contains	: Chemical Designation	CAS-No.	Content	Classification	R-Phrases
	2-(2-Butoxyethoxy)ethanol	112-34-5	< 15%	Xi	36
	Synthetic Surfactant	Trade Secret	< 5%	Xi	41
	Fluorosurfactant Composition	Trade Secret	< 10%	Xi	36-52/53
	For the wording of the R-phrases see Paragraph 16				

3. Possible Hazards

Particular Hazards for Men and Environment :  Irritating to eyes

Note that when spraying on people, breathing in the foam is impossible.

4. First Aid Measures

Eye Contact	: Rinse thoroughly with running water. Seek medical advice if symptoms persist. Show this material safety data sheet.
Skin Contact	: Rinse with water.
Ingestion	: Seek medical advice. Do not induce vomiting (possible risk of suffocation due to formation of foam). Show this material safety data sheet.
Inhalation	: Move away from radius of action. Seek medical advice if symptoms occur.

5. Fire-Fighting Measures

Not inflammable. The product is used as fire extinguishing agent.

6. Accidental Release Measures

- Person-related safety precautions** : Supply ventilation in enclosed spaces. Avoid eye and skin contact.
- Measures for environmental protection** : Avoid if possible penetration of aqueous systems and ground.
- Measures for cleaning/collecting** : Absorb with liquid-binding material (sand, sawdust or universal binder).

7. Handling and Storage

- Information for**
- safe handling : Keep container closed
 - explosion and fire protection : Not available
- Requirements to be met by store rooms and containers** : The national regulations for products classified as water hazard class 1 have to be obeyed.
Tanks made from high-grade steel, glass fibre reinforced polyester or polyethylene are suitable for the storage.
- Information on combined storage** : Storage class (LGK): 12 (non-burning liquid)
- Further information on storage conditions** : Do not store above +50°C for longer periods.

8. Exposure Controls/Personal Protection**Components with critical values requiring monitoring at workplace**

CAS No.	Chemical Designation	Type	Value	Unit
112-34-5	2-(2-Butoxyethoxy)ethanol	MAK	100	mg/m ³

**Personal Protective Equipment
Respiratory Protection**

: Not required upon appropriate use.

Hand Protection

: Suitable protection may be provided by using chemical resistant gloves made from the following materials: nitrile or butyl rubber with at least 0.4 mm thickness (according to EN 374, Part 3: Level 6 => 480 min.). Always seek advice from glove suppliers. The durability of the recommended protective gloves can be shorter than the permeation times found in the EN 374 due to different influences (e.g. temperature).

Eye Protection

: Use safety goggles.

General protective and hygienic measures

: Remove contaminated clothing. Keep away from food and beverages. Wash hands before breaks and after work.

9. Physical and Chemical Properties

Form : Liquid
Colour : yellow to brown
Odour : specific

			Value	Unit	Method
pH-Value	at	20°C	:	6,5 - 8,5	DIN EN 1262:1996
Density	at	20°C	:	appr. 1,040 - 1,050	g/cm ³ DIN EN ISO 3675
Viscosity	at	20°C	:	max. 4	mm ² /sec DIN 51562
Viscosity	at	-12°C	:	max. 15	mm ² /sec DIN 51562
Pour Point			:	appr. -12 (14)	°C (°F) DIN ISO 3016
Boiling Point/Range			:	appr. 100 (212)	°C (°F)
Flashpoint			:	> 100 (212)	°C (°F) DIN EN 22719

Water Solubility : Unlimited
Explosive Properties : Not explosive

10. Stability and Reactivity

Thermal decomposition conditions to avoid : No decomposition upon appropriate use.

Hazardous decomposition products : None known

11. Toxicological Informations

Primary irritant effect:

Skin contact : Classified as irritant according to the Dangerous Preparations Directive 1999/45/EU

Eye contact : Classified as non-irritant according to the Dangerous Preparations Directive 1999/45/EU

Rat toxicity LD₅₀ oral : > 2000 mg/kg (according to Limittest)

12. Ecological Information

Information on elimination : The product is very well bio-degradable.
Approximately 99,4% in 11 days (OECD 301 c).

COD : appr. 379.000 mg O₂/litre (concentrate; DIN EN 38409-H41-1)
appr. 11.370 mg O₂/litre (3% solution; DIN EN 38409-H41-1)

BOD₅ : appr. 329.000 mg O₂/litre (concentrate; DIN EN 1899-1)
appr. 9.860 mg O₂/litre (3% solution; DIN EN 1899-1)

Influence on sewage systems : Influence unlikely if induced at concentrations lower than the following (TTC Test, DIN 38412 – L3):
Concentrate : < 8.000 mg/l (> 125 times diluted)
Solution 3% : < 267.000 mg/l (> 4 times diluted)

Fish Toxicity LC₅₀ : appr. > 1.500 mg/liter (48 h, DIN 38412-15)

Algae Toxicity E_rC₅₀ : appr. > 1.000 mg/liter (72 h, EN 28692:1993)

Daphnia Toxicity EC₅₀ : appr. > 100 < 1.000 mg/liter (24 h, DIN 38412-11) *

* = Values derived from products of comparable composition

13. Disposal Considerations

Produkt	: Not to be disposed of with household garbage. Dispose of according to local regulations by suitable landfill or incineration. Upon appropriate dilution disposal by biological sewage system possible (consult plant management).
Uncleaned packaging	: Disposal according to official regulations.
European Waste Code	: 16 Wastes not otherwise specified in the list 1603 Off-specification batches and unused products 160305* organic wastes containing dangerous substances

14. Transport Informations

No hazardous good according to transport regulations (IMDG/GGVSee, ADR/RID and GGVSE, ICAO-TI and IATA-DGR).

15. Regulatory Information**Designation according to EU directives**

Hazard designation :  **Irritant**

Hazardous components : 2-(2-Butoxyethoxy)ethanol and synthetic surfactants

R-Phrases : 36 Irritating to eyes

S-Phrases : 24/25 Avoid contact with skin and eyes

National regulations

Water hazard class (WGK) : 1 (VwVwS supplement 4/4: self classification)

16. Other Information

Use the described product only for the specified purpose. These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

36 Irritating to eyes

41 Risk of serious damage to the eyes

52/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment