

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Trade name Presto AFFF ENG
Article type Fire extinguishing product
Supplier Presto
Street address Värmbolsvägen 2
Box 315
Box 315
641 23 Katrineholm
Sverige
Telephone 0150-76000
Fax 0150-76030
Manufacturer Fabrik chemischer Präparate von Dr. Richard Sthamer GmbH & Co. KG
Street address Liebigstrasse 5
D-22113 Hamburg
Tyskland
Telephone +49 40 736 168-0
Fax +49 40 736 168-31 (lab)

2. HAZARDOUS PROPERTIES

Information about dangerous properties Classification: Xi/Irritating
Irritating to eyes.
Note that when spraying on people, breathing in the foam is impossible.

Xi



Irritant

Danger class Xi - Irritant
Hazard phrases R36 - Irritating to eyes.
Safety phrases S24/25 - Avoid contact with skin and eyes.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS no	EC-No.	Concentration	Danger symbols	R -phrase(s)	List
2-(2-butoxyethoxy)ethanol,diethylene glycol monobutyl ether	112-34-5	203-961-6	<10%	Xi	36	-
ethanediol,ethylene glycol	107-21-1	203-473-3	<25%	Xn	22	-

Substance additional information Synthetic surfactants, content: Trade secret 0-15 % (0-5 % for each of the three agents).
Fluorosurfactant composition, content: Trade secret: 0-10 %.

4. FIRST AID MEASURES

- First aid in case of ingestion** Seek medical advice. Do not induce vomiting (possible risk of suffocation due to formation of foam). Show this material safety data sheet.
- First aid in case of skin contact** Rinse with water.
- First aid in case of inhalation** Move away from radius of action. Seek medical advice if symptoms occur.
- First aid in case of eye contact** Rinse thoroughly with running water. Seek medical advice if symptoms persist.
Show this material safety data sheet.

5. FIRE-FIGHTING MEASURES

- Additional information in case of fire** Not inflammable. The product is used as fire extinguishing agent.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions** Supply ventilation in enclosed spaces. Avoid eye and skin contact.
- Type of decontaminating agent** Absorb with liquid-binding material (sand, sawdust or universal binder).
- Additional information** Measures for environmental protection:
Avoid if possible penetration of aqueous systems and ground.

7. HANDLING AND STORAGE

- Preventive handling precautions** Keep container closed.
- Storage** The national regulations for products classified as water hazard class 1 have to be obeyed.
Do not store above +50°C for longer periods.
- Suitable packaging material** Tanks made from high-grade steel, glass fibre reinforced polyester or polyethylene are suitable for the storage.
- Additional information about handling and storage** Information on combined storage: Storage class (LGK): 12 (non-burning liquid).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National occupational exposure limits	CAS-No.	EC-No.	Exposure Limit Values		Ceiling Limit Value		Short term exposure limit		Country
			ppm / mg/m3	ppm / mg/m3	ppm / mg/m3	ppm / mg/m3			
	107-21-1	-	10	25	-	-	20	50	SE
	112-34-5	-	15	100	-	-	30	200	SE

- Respiratory protection** Not required upon appropriate use.
- Safety gloves** 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

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

	gloves can be shorter than the permeation times found in the EN 374 due to different influences (e.g. temperature).
Limitation of exposure	Type MAK: CAS No. 107-21-1 1,2-Ethandiol: 10 ppm CAS No. 112-34-5 2-(2-Butoxyethoxy)ethanol: 100 mg/m ³
Additional information	General protective and hygienic measures: Remove contaminated clothing. Keep away from food and beverages. Wash hands before breaks and after work.
Protective glasses	Use safety goggles.

9. PHYSICAL AND CHEMICAL PROPERTIES

Density	at 20°C: 1,045-1,055 g/cm ³ Method: DIN EN ISO 3675
Water solubility	Unlimited
Viscosity	at -18°C max 25 mm ² /sec DIN 51562
Viscosity	at 20°C: max 10 mm ² /sec Method: DIN 51562
Form	Liquid
Colour	Yellow to brown
Odour	Specific
pH	at 20°C: 6,5-8,5 Method: DIN EN 1262:1996
Boiling point/range	approx. 100°C
Flash point	> 100°C Method: DIN EN 22719
Explosive properties	Not explosive
Pour point:	approx -18°C Method: DIN ISO 3016

10. STABILITY AND REACTIVITY

Hazardous decomposition products	None known.
Additional information	Thermal decomposition conditions to avoid: No decomposition upon appropriate use.

11. TOXICOLOGICAL INFORMATION

Toxicity in case of skin contact	Classified as non-irritant according to the Dangerous Preparations Directive 1999/45/EU.
Toxicity in case of eye contact	Classified as irritant according to the Dangerous Preparations Directive 1999/45/EU.
Additional information about toxicity	Rat toxicity LD50 oral: > 2000 mg/kg (according to Limittest).

12. ECOLOGICAL INFORMATION

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Acute fish toxicity	LC50 : appr. 1.780 mg/liter (48 h, DIN 38412-15)
Acute algae toxicity	ErC50 : appr. > 10 < 100 mg/liter (72 h, OECD 201) *
Acute crustacean toxicity	Daphnia: EC50 : appr. > 100 < 1.000 mg/liter (48h, OECD 202) *
Decay/transformation	COD: appr. 550.000 mg O2/litre (concentrate; DIN EN 38409-H41-1) appr. 16.500 mg O2/litre (3% solution; DIN EN 38409-H41-1) BOD5: appr. 325.000 mg O2/litre (concentrate; DIN EN 1899-1) ! appr. 9.750 mg O2/litre (3% solution; DIN EN 1899-1).
Additional information	Information on elimination: The product is very well bio-degradable. Approximately 99% in 19 days (OECD 301 c). Influence on sewage systems: Influence unlikely if induced at concentrations lower than the following (TTC Test, DIN 38412 L3): Concentrate : < 3.000 mg/l (> 330 times diluted) Solution 3% : < 100.000 mg/l (> 10 times diluted) *=Values derived from products of comparable composition

13. WASTE MANAGEMENT

Waste management	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.
Waste code (EWC)	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 INFORMATION

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

15. REGULATIONS

Mothercare	No
Childcare	No
Additional existing regulations	National regulations Water hazard class (WGK) : 1 (VwVwS supplement 4/4: self classification).

16. OTHER INFORMATION



SAFETY DATA SHEET
Presto AFFF ENG

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16. OTHER INFORMATION

MSDS reviewed 2009-01-20 (1)

Additional information MSDS transferred from original 12/11/07 to iChemistry 20/01/09.