

## Section 1: Identification of the substance/mixture and of the company/undertaking

### Product identifier

Trade name or designation of the mixture	Extra-Eco + Premix
Registration number	-
Synonyms	Aqueous Film Forming Foam (AFFF)
SDS number	-
Product code	10 - 45
Date of first issue	17-May-2010
Version number	03
Revision date	19-November-2014
Supersedes date	19-November-2010

### Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Fire fighting foam concentrate.
Uses advised against	None known.

### Details of the supplier of the safety data sheet

#### Supplier

Company name	Chubb
Address	Chubb House, Staines Road West Sunbury on Thames, Middlesex, TW16 7AR
Telephone:	0044 (0)1932 785588
Fax:	0044 (0)1932 765630
e-mail	info@chubb.co.uk E
Contact person	H&S Manager
Emergency telephone number	0044 (0)15 2426 4000 (Standard office hours: Monday to Friday 8:30am - 4:30pm GMT)

## Section 2: Hazards identification

### Classification of the substance or mixture

#### Classification according to Directive 67/548/EEC or 1999/45/EC as amended

Classification Xi;R36/38, R43, R52

#### Classification according to Regulation (EC) No 1272/2008 as amended

##### Health hazards

Skin corrosion/irritation	Category 2	Causes skin irritation.
Serious eye damage/eye irritation	Category 2	Causes serious eye irritation.
Skin sensitisation	Category 1	May cause an allergic skin reaction.

### Hazard summary

Physical hazards	Not classified for physical hazards.
Health hazards	Irritating to eyes and skin. May cause sensitisation by skin contact. Occupational exposure to the substance or mixture may cause adverse health effects.
Environmental hazards	Harmful to aquatic organisms.
Specific hazards	Not available.
Main symptoms	Sensitisation. Symptoms include itching, burning, redness and tearing. Symptoms may include redness, drying and cracking of the skin.

### Label elements

#### Label according to Regulation (EC) No. 1272/2008 as amended

Contains:	Reaction mass of: 5-Chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazolin-3-one (3:1)
-----------	--



<b>Signal word</b>	Warning
<b>Hazard statements</b>	Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction.
<b>Precautionary statements</b>	
<b>Prevention</b>	Avoid breathing mist/vapours/spray. Wear protective gloves. Contaminated work clothing should not be allowed out of the workplace.
<b>Response</b>	IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before re-use. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
<b>Storage</b>	Store away from incompatible materials.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Supplemental label information</b>	None.
<b>Other hazards</b>	Not a PBT or vPvB substance or mixture.

### Section 3: Composition/information on ingredients

#### Mixture

##### General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Diammonium phosphate	3 - < 5	7783-28-0 231-987-8	-	-	#
<b>Classification:</b>	<b>DSD:</b> Xi;R37, N;R50/53				
	<b>CLP:</b> STOT SE 3;H335, Aquatic Acute 1;H400, Aquatic Chronic 1;H410				
2-(2-butoxyethoxy)-ethanol	< 1	112-34-5 203-961-6	-	603-096-00-8	#
<b>Classification:</b>	<b>DSD:</b> Xi;R36				
	<b>CLP:</b> Eye Irrit. 2;H319				
Reaction mass of: 5-Chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazolin-3-one (3:1)	0,06 - <0,25	55965-84-9 220-239-6	-	613-167-00-5	
<b>Classification:</b>	<b>DSD:</b> T;R23/24/25, C;R34, R43, N;R50-53				
	<b>CLP:</b> Acute Tox. 3;H301, Acute Tox. 3;H311, Skin Corr. 1B;H314, Skin Sens. 1;H317, Acute Tox. 3;H331, Aquatic Acute 1;H400, Aquatic Chronic 1;H410				
Water	Balance	7732-18-5 231-791-2	-	-	
<b>Classification:</b>	<b>DSD:</b> -				
	<b>CLP:</b> -				

#: This substance has workplace exposure limit(s).

DSD: Directive 67/548/EEC.

CLP: Regulation No. 1272/2008.

**Composition comments** All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.  
The full text for all R- and H-phrases is displayed in section 16.

### Section 4: First aid measures

#### Description of first aid measures

<b>Inhalation</b>	Move injured person into fresh air and keep person calm under observation. Get medical attention, if needed.
<b>Skin contact</b>	Wash the skin immediately with soap and water. Get medical attention if irritation develops and persists. If skin rash or an allergic skin reaction develops, get medical attention.

<b>Eye contact</b>	Flush thoroughly with water. If irritation occurs, get medical assistance. Remove any contact lenses.
<b>Ingestion</b>	Only induce vomiting at the instruction of medical personnel. Immediately rinse mouth and drink plenty of water. Keep person under observation. If person becomes uncomfortable take to hospital along with these instructions.
<b>Most important symptoms and effects, both acute and delayed</b>	Contact may cause irritation and redness. Sensitisation.
<b>Indication of any immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically.

## Section 5: Firefighting measures

<b>General fire hazards</b>	Product is an extinguishing medium. It does not burn or support combustion. Not applicable.
<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	No specific measures are required as this product is a fire extinguishing medium.
<b>Unsuitable extinguishing media</b>	Not available.
<b>Special hazards arising from the substance or mixture</b>	Not a fire hazard.
<b>Advice for firefighters</b>	
<b>Special protective equipment for firefighters</b>	Self-contained breathing apparatus, operated in positive pressure mode and full protective clothing must be worn in case of fire.
<b>Special firefighting procedures</b>	No specific precautions.

## Section 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	Wear protective clothing as described in section 8 of this safety data sheet. Provide adequate ventilation. Avoid inhalation of mists or aerosols. Avoid contact with skin and eyes.
<b>For emergency responders</b>	Use personal protection recommended in section 8 of the SDS.

**Environmental precautions** Prevent entry into waterways, sewer, basements or confined areas.

**Methods and material for containment and cleaning up** Absorb spillage with suitable absorbent material. Collect and dispose of spillage as indicated in Section 13.

**Reference to other sections** For personal protection, see section 8.  
For waste disposal, see section 13.

## Section 7: Handling and storage

<b>Precautions for safe handling</b>	Avoid contact with skin and eyes. Wear appropriate personal protective equipment. Wash hands after handling. Read and follow manufacturer's recommendations. Observe good industrial hygiene practices.
<b>Conditions for safe storage, including any incompatibilities</b>	Store at temperature below 40°C. Store above freezing. Store away from incompatible materials.
<b>Specific end use(s)</b>	Fire fighting foam concentrate.

## Section 8: Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

##### Austria. MAK List

Components	Type	Value
2-(2-butoxyethoxy)-ethanol (112-34-5)	MAK	97,5 mg/m <sup>3</sup>
	STEL	10 ppm
		101,2 mg/m <sup>3</sup> 15 ppm

##### Belgium. Exposure Limit Values.

Components	Type	Value
2-(2-butoxyethoxy)-ethanol (112-34-5)	STEL	101,2 mg/m <sup>3</sup>
	TWA	15 ppm 67,5 mg/m <sup>3</sup>

**Belgium. Exposure Limit Values.**

Components	Type	Value
		10 ppm

**Czech Republic. OELs. Government Decree 361**

Components	Type	Value
2-(2-butoxyethoxy)-ethanol (112-34-5)	Ceiling	100 mg/m <sup>3</sup>
	TWA	70 mg/m <sup>3</sup>

**France. Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984**

Components	Type	Value
2-(2-butoxyethoxy)-ethanol (112-34-5)	VLE	101,2 mg/m <sup>3</sup>
	VME	15 ppm 67,5 mg/m <sup>3</sup> 10 ppm

**Germany. TRGS 900, Limit Values in the Ambient Air at the Workplace**

Components	Type	Value
2-(2-butoxyethoxy)-ethanol (112-34-5)	AGW	100 mg/m <sup>3</sup>

**Italy. OELs**

Components	Type	Value
2-(2-butoxyethoxy)-ethanol (112-34-5)	STEL	101,2 mg/m <sup>3</sup>
	TWA	15 ppm 67,5 mg/m <sup>3</sup> 10 ppm

**Netherlands. OELs (binding)**

Components	Type	Value
2-(2-butoxyethoxy)-ethanol (112-34-5)	STEL	100 mg/m <sup>3</sup>
	TWA	50 mg/m <sup>3</sup>

**Norway. Administrative Norms for Contaminants in the Workplace**

Components	Type	Value
2-(2-butoxyethoxy)-ethanol (112-34-5)	TLV	10 ppm 68 mg/m <sup>3</sup>

**Poland. MACs. Minister of Labour and Social Policy Regarding Maximum Allowable Concentrations and Intensities in Working Environment**

Components	Type	Value
2-(2-butoxyethoxy)-ethanol (112-34-5)	STEL	100 mg/m <sup>3</sup>
	TWA	67 mg/m <sup>3</sup>

**Hygiene Norm GN 2.2.5.2439-09. Maximum allowable concentration (MAC) of harmful substances in the air of working zones. Executive No. 76 of 30 april 2006. Including Appendixes No.1, 2, 3 and 4.**

Components	Type	Value	Form
2-(2-butoxyethoxy)-ethanol (112-34-5)	Ceiling	10 mg/m <sup>3</sup>	Aerosol
Diammonium phosphate (7783-28-0)	Ceiling	10 mg/m <sup>3</sup>	Aerosol

**Spain. Occupational Exposure Limits**

Components	Type	Value
2-(2-butoxyethoxy)-ethanol (112-34-5)	STEL	101,2 mg/m <sup>3</sup>
	TWA	15 ppm 67,5 mg/m <sup>3</sup> 10 ppm

## Sweden. Occupational Exposure Limit Values

Components	Type	Value
2-(2-butoxyethoxy)-ethanol (112-34-5)	STEL	200 mg/m <sup>3</sup>
	TWA	30 ppm 100 mg/m <sup>3</sup> 15 ppm

## Switzerland. SUVA Grenzwerte am Arbeitsplatz

Components	Type	Value
2-(2-butoxyethoxy)-ethanol (112-34-5)	STEL	101,2 mg/m <sup>3</sup>
	TWA	15 ppm 67 mg/m <sup>3</sup> 10 ppm

## UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value
2-(2-butoxyethoxy)-ethanol (112-34-5)	STEL	101,2 mg/m <sup>3</sup>
	TWA	15 ppm 67,5 mg/m <sup>3</sup> 10 ppm

<b>Recommended monitoring procedures</b>	Follow standard monitoring procedures.
<b>DNEL</b>	Not available.
<b>PNEC</b>	Not available.
<b>Exposure controls</b>	
<b>Appropriate engineering controls</b>	Ensure adequate ventilation, especially in confined areas. Observe occupational exposure limits and minimise the risk of exposure.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>General information</b>	Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.
<b>Eye/face protection</b>	Wear approved safety goggles.
<b>Skin protection</b>	
<b>- Hand protection</b>	Butyl rubber gloves are recommended. Suitable gloves can be recommended by the glove supplier.
<b>- Other</b>	Wear suitable protective clothing and gloves.
<b>Respiratory protection</b>	In case of inadequate ventilation: Use respiratory equipment with combination filter, type A2/P2.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>Hygiene measures</b>	Routinely wash work clothing and protective equipment to remove contaminants.
<b>Environmental exposure controls</b>	Contain spills and prevent releases and observe national regulations on emissions. Environmental manager must be informed of all major spillages.

## Section 9: Physical and chemical properties

### Information on basic physical and chemical properties

<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Colour</b>	Pale yellow. / Orange.
<b>Odour</b>	Detergent like.
<b>Odour threshold</b>	Not available.
<b>pH</b>	7 - 9 at 20°C
<b>Melting point/freezing point</b>	Not available.
<b>Boiling point, initial boiling point, and boiling range</b>	100 °C (212 °F)
<b>Flash point</b>	Not applicable.
<b>Auto-ignition temperature</b>	Not applicable.
<b>Flammability (solid, gas)</b>	Not available.

<b>Flammability limit - lower (%)</b>	Not applicable.
<b>Flammability limit - upper (%)</b>	Not applicable.
<b>Oxidising properties</b>	Not applicable.
<b>Explosive properties</b>	Not applicable.
<b>Explosive limit</b>	Not applicable.
<b>Vapour pressure</b>	Not applicable.
<b>Vapour density</b>	Not applicable.
<b>Evaporation rate</b>	Not applicable.
<b>Relative density</b>	1,02 - 1,05
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	No data available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	2 cSt at 20 °C
<b>Percent volatile</b>	Not available.
<b>Other data</b>	
<b>Flammability</b>	Not applicable.
<b>Other information</b>	No relevant additional information available.

## Section 10: Stability and reactivity

<b>Reactivity</b>	The product is stable and non reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Stable at normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous polymerisation does not occur.
<b>Conditions to avoid</b>	Contact with incompatible materials. Excessive heat. Freezing (Product properties are unaffected).
<b>Incompatible materials</b>	Alkali metals. Strong oxidising agents. Water reactive materials.
<b>Hazardous decomposition products</b>	Carbon oxides. Hydrogen fluoride. Nitrogen oxides (NOx). Phosphorus oxides. Sodium oxides. Sulphur oxides.

## Section 11: Toxicological information

<b>General information</b>	The information in this section is for the individual ingredients that are expected to contribute to the potential health effects of this product.	
<b>Information on likely routes of exposure</b>		
<b>Ingestion</b>	May cause discomfort if swallowed.	
<b>Inhalation</b>	May cause respiratory tract irritation.	
<b>Skin contact</b>	Causes skin irritation.	
<b>Eye contact</b>	Causes serious eye irritation.	
<b>Symptoms</b>	Symptoms can include irritation, redness, scratching of the cornea, and tearing.	
<b>Information on toxicological effects</b>		
<b>Acute toxicity</b>	Causes skin and eye irritation. May cause allergic skin reaction.	
<b>Components</b>	<b>Test results</b>	
2-(2-butoxyethoxy)-ethanol (112-34-5)	Acute Dermal LD50 Rabbit: 2700 mg/kg	Acute Oral LD50 Rat: 4500 mg/kg
<b>Skin corrosion/irritation</b>	Causes skin irritation. Prolonged or repeated contact may dry skin and cause dermatitis.	
<b>Serious eye damage/eye irritation</b>	Causes serious eye irritation.	
<b>Respiratory sensitisation</b>	No data available.	
<b>Skin sensitisation</b>	May cause allergic skin reaction.	
<b>Germ cell mutagenicity</b>	No data available.	
<b>Carcinogenicity</b>	No data available.	
<b>Reproductive toxicity</b>	No data available.	

<b>Specific target organ toxicity - single exposure</b>	No data available.
<b>Specific target organ toxicity - repeated exposure</b>	No data available.
<b>Aspiration hazard</b>	No data available.
<b>Mixture versus substance information</b>	No data available.
<b>Other information</b>	Persons with pre-existing skin disorders may be more susceptible to the effects of the product.

## Section 12: Ecological information

### Toxicity

Components	Test results
Diammonium phosphate (7783-28-0)	LC50 Mozambique tilapia ( <i>Tilapia mossambica</i> ): 0,12 mg/l 96 hours
<b>Persistence and degradability</b>	The product is biodegradable.
<b>Bioaccumulative potential</b>	The product is not expected to bioaccumulate.
<b>Mobility</b>	The product is water soluble and may spread in water systems.
<b>Environmental fate - Partition coefficient</b>	No data available.
<b>Mobility in soil</b>	No data available.
<b>Results of PBT and vPvB assessment</b>	No data available.
<b>Other adverse effects</b>	Surfactants can cause foaming problems in water.

## Section 13: Disposal considerations

### Waste treatment methods

<b>Residual waste</b>	Dispose of waste and residues in accordance with local authority requirements.
<b>Contaminated packaging</b>	Dispose of in accordance with local regulations.
<b>EU waste code</b>	16 03 05*
<b>Disposal methods/information</b>	Dispose of waste and residues in accordance with local authority requirements.

## Section 14: Transport information

### ADR

The product is not covered by international regulation on the transport of dangerous goods.

### RID

The product is not covered by international regulation on the transport of dangerous goods.

### ADN

The product is not covered by international regulation on the transport of dangerous goods.

### IATA

The product is not covered by international regulation on the transport of dangerous goods.

### IMDG

The product is not covered by international regulation on the transport of dangerous goods.

**Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** No information available.

## Section 15: Regulatory information

### Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU Regulations

**Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex I**

Not listed.

**Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex II**

Not listed.

**Regulation (EC) No. 850/2004 on persistent organic pollutants, Annex I**

Not listed.

**Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1**

Not listed.

**Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2**

Not listed.

**Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3**

Not listed.

**Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V**

Not listed.

**Directive 96/61/EC concerning integrated pollution prevention and control (IPPC): Article 15, European Pollution Emission Registry (EPER)**

Not listed.

**Regulation (EC) No. 1907/2006, REACH Article 59(1). Candidate List**

Not listed.

<b>Other regulations</b>	The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.
<b>National regulations</b>	Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work.
<b>Chemical safety assessment</b>	No Chemical Safety Assessment has been carried out.

## Section 16: Other information

**List of abbreviations** DNEL: Derived No-Effect Level. PNEC: Predicted No-Effect Concentration. PBT: Persistent, bioaccumulative and toxic. vPvB: Very Persistent and very Bioaccumulative.

**References** US. IARC Monographs on Occupational Exposures to Chemical Agents  
EPA: Acquire database  
NLM: Hazardous Substances Data Base  
ACGIH

**Information on evaluation method leading to the classification of mixture** The mixture is classified based on test data for physical hazards. The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available. For details, refer to Sections 9, 11 and 12.

**Full text of any statements or R-phrases and H-phrases under Sections 2 to 15**

R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.  
R34 Causes burns.  
R36 Irritating to eyes.  
R36/38 Irritating to eyes and skin.  
R37 Irritating to respiratory system.  
R43 May cause sensitisation by skin contact.  
R50 Very toxic to aquatic organisms.  
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R52 Harmful to aquatic organisms.  
R53 May cause long-term adverse effects in the aquatic environment.  
H301 - Toxic if swallowed.  
H311 - Toxic in contact with skin.  
H314 - Causes severe skin burns and eye damage.  
H317 - May cause an allergic skin reaction.  
H319 - Causes serious eye irritation.  
H331 - Toxic if inhaled.  
H335 - May cause respiratory irritation.  
H400 - Very toxic to aquatic life.  
H410 - Very toxic to aquatic life with long lasting effects.

**Training information** Follow training instructions when handling this material.

**Disclaimer** This information is based on our current knowledge and is believed to be correct as of the date issued. The information is intended to describe the product for the purposes of health, safety and environmental requirements only and no warranty, express or implied, is made. It should also not be construed as guaranteeing any specific property of the product. In addition, information obtained from a database is subject to change and may not be as current as the information in the MSDS available directly from UTCFS.

**Issue date** 19-November-2010

**Revision date** 19-November-2010

**Print date** 23-March-2011