



SAFETY DATA SHEET

Fomtec AFFF 3% ICAO

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Date issued 12.11.2012
Revision date 20.11.2013

1.1. Product identifier

Product name Fomtec AFFF 3% ICAO
Article no. 10-3030-XX

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/preparation Appliance protection.

1.3. Details of the supplier of the safety data sheet

Company name Dafo Fomtec AB
Office address Garnisonsg. 47 A, Helsingborg
Postal address Box 683
Postcode S-13526
City Tyresö
Country Sweden
Tel + 46 850640500
E-mail info@fomtec.com
Website <http://www.fomtec.com/>

1.4. Emergency telephone number

Emergency telephone National Poisons Information Service London:+44 20 7771 5394

SECTION 2: Hazards identification

2.1. Classification of substance or mixture

Classification according to Eye Dam. 1; H318; Calculation method
Regulation (EC) No 1272/2008
[CLP/GHS]

2.2. Label elements

Hazard Pictograms (CLP)



Signal word Warning
Hazard statements H318 Causes Serious eye damage.
Precautionary statements P264 Wash thoroughly after handling. P280 Wear protective gloves/protective clothing/eye protection/face protection. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 If eye irritation persists: Get medical advice/attention.

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Substance	Identification	Classification	Contents
Sodium Alkyl Sulfate	CAS no.: 90583-25-8 EC no.: 292242	Xi; R38,R41 Skin Irrit. 2;H315 Eye Irrit. 2;H318	2 - 6 %
Alkyl polyglycoside	CAS no.: 68515-73-1 EC no.: 500-220-1 Registration number: 01-2119488530-36	Xi; R41 Eye Dam. 1;H318	1 - 3 %
Diethylene glycol monobutyl ether	CAS no.: 112-34-5 EC no.: 203-961-6 Index no.: 603-096-00-8 Synonyms: 2-(2-Butoxyethoxy) ethanol	Xi; R36 Eye Irrit. 2; H319	4 - 8 %
Column headings	CAS no. = Chemical Abstracts Service; EU (Einecs or Elincs number) = European inventory of Existing Commercial Chemical Substances; Ingredient name = Name as specified in the substance list (substances that are not included in the substance list must be translated, if possible). Contents given in; %, %wt/wt, %vol/wt, %vol/vol, mg/m ³ , ppb, ppm, weight%, vol%		
HH/HF/HE	T+ = Very toxic, T = Toxic, C = Corrosive, Xn = Harmful, Xi = Irritating, E = Explosive, O = Oxidizing, F+ = Extremely flammable, F = Very flammable, N = Environmental hazard		

SECTION 4: First aid measures

4.1. Description of first aid measures

General	Provide rest, warmth and fresh air. Get medical attention if any discomfort continues.
Inhalation	Fresh air and rest. Get medical attention if any discomfort continues.
Skin contact	Remove contaminated clothing and launder thoroughly before re-use. Wash skin thoroughly with soap and water for several minutes. Get medical attention if any discomfort continues.
Eye contact	Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Seek medical attention and bring along these instructions.
Ingestion	Immediately rinse mouth and drink plenty of water. Keep person under observation. If person becomes uncomfortable seek hospital and bring these instructions.
Recommended personal protective equipment for first aid responders	No recommendation given.

4.2. Most important symptoms and effects, both acute and delayed

Information for health personnel Get medical attention if any discomfort continues.

4.3. Indication of any immediate medical attention and special treatment needed

Medical monitoring for delayed effects	No recommendation given.
Separate first aid equipment	No recommendation given.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media This product is not flammable.

5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards None.

5.3. Advice for firefighters

Fire fighting procedures

Follow the general fire precautions indicated by the workplace.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal protection measures Avoid contact with skin and eyes. Do not breathe vapour. For personal protection, see section 8.

6.2. Environmental precautions

Environmental precautionary measures Prevent discharge of larger quantity to drain. Avoid discharge to the aquatic environment.

6.3. Methods and material for containment and cleaning up

Cleaning method Absorb with sand or other inert absorbent. Flush area clean with lots of water. Be aware of potential for surfaces to become slippery. For waste disposal, see section 13.

6.4. Reference to other sections

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling Avoid contact with skin and eyes. Avoid inhalation of vapours. Wash hands before breaks and before smoking, eating or drinking. Wash hands and contaminated areas with water and soap after finished work. Container must be kept tightly closed.

7.2. Conditions for safe storage, including any incompatibilities

Storage Store at moderate temperatures in dry, well ventilated area. Keep containers tightly closed. Protect against direct sunlight.

7.3. Specific end use(s)

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure limit values

Substance	Identification	Value	TWA Year
Sodium Alkyl Sulfate	CAS no.: 90583-25-8 EC no.: 292242		
Alkyl polyglycoside	CAS no.: 68515-73-1 EC no.: 500-220-1 Registration number: 01-2119488530-36		
Diethylene glycol monobutyl ether	CAS no.: 112-34-5 EC no.: 203-961-6 Index no.: 603-096-00-8 Synonyms: 2-(2-Butoxyethoxy) ethanol	8-hour TWA: 10 ppm 8-hour TWA: 67,5 mg/m ³ 15 min.: 15 ppm 15 min.: 101,2 mg/m ³	2011

Substance Alkyl polyglycoside
Suitable gloves type Butyl rubber. Gloves of nitrile rubber, PVA or Viton are recommended.
Eye protection Eye protection: Goggles/face shield are recommended.

DNEL / PNEC from substances

Substance Sodium Alkyl Sulfate
DNEL Group: Worker
Exposure route: Inhalation
Exposure frequency: Long term (repeated)
Type of effect: Systemic effect

	Value: 285 mg/m ³
DNEL	Group: Worker
	Exposure route: Dermal
	Exposure frequency: Long term (repeated)
	Type of effect: Systemic effect
	Value: 4060 mg/kg bw/day
DNEL	Group: Consumer
	Exposure route: Oral
	Exposure frequency: Long term (repeated)
	Type of effect: Systemic effect
	Value: 24 mg/kg bw/day
DNEL	Group: Consumer
	Exposure route: Inhalation
	Exposure frequency: Long term (repeated)
	Type of effect: Systemic effect
	Value: 85 mg/m ³
DNEL	Group: Consumer
	Exposure route: Dermal
	Exposure frequency: Long term (repeated)
	Type of effect: Systemic effect
	Value: 2440 mg/kg bw7day
PNEC	Exposure route: Soil
	Value: 0,185 mg/l
PNEC	Exposure route: Sewage treatment plant STP
	Value: 1,35 mg/l
PNEC	Exposure route: Sediment
	Critical Component: marine water
	Value: 0,125 mg/l
PNEC	Exposure route: Sediment
	Critical Component: Fresh water
	Value: 1,25 mg/l
PNEC	Exposure route: Water
	Critical Component: Marine water
	Value: 0,0112 mg/l
PNEC	Exposure route: Water
	Critical Component: Fresh water
	Value: 0,112 mg/l
Substance	Alkyl polyglycoside
DNEL	Group: Worker
	Exposure route: Dermal
	Exposure frequency: Long term (repeated)
	Type of effect: Systemic effect
	Value: 595000 mg/kg bw/day
DNEL	Group: Worker
	Exposure route: Inhalation
	Exposure frequency: Long term (repeated)
	Type of effect: Systemic effect
	Value: 420 mg/m ³
DNEL	Group: Consumer
	Exposure route: Dermal
	Exposure frequency: Long term (repeated)
	Type of effect: Systemic effect
	Value: 357000 mg/kg bw/day
DNEL	Group: Consumer
	Exposure route: Inhalation

DNEL

Exposure frequency: Long term (repeated)
 Type of effect: Systemic effect
 Value: 124 mg/m³
 Group: Consumer
 Exposure route: Oral
 Exposure frequency: Long term (repeated)
 Type of effect: Systemic effect
 Value: 35,7 mg/kg bw/day

8.2. Exposure controls

Respiratory protection

Respiratory protection Under normal conditions of use respiration protection should not be required.

Hand protection

Hand protection Protective gloves must be used if there is a risk of direct contact or splash.
 Suitable gloves type Rubber or plastic.

Eye / face protection

Eye protection Use approved safety goggles or face shield.

Skin protection

Skin protection (except hands) Use protective clothing, which covers arms and legs.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Clear, yellowish liquid.
 Colour Yellowish.
 Odour Slight odour.
 pH (as supplied) Value: 6,5-8,5
 Freezing point Value: -5 °C
 Specific gravity Value: ~ 1,05 g/ml
 Solubility description Completely soluble in water.
 Viscosity Value: ≤ 20 mPas
 Method of testing: Brookfield DV

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity There are no known conditions that are likely to result in a hazardous situation.

10.2. Chemical stability

Stability Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None.

10.4. Conditions to avoid

Conditions to avoid Earth metals such as sodium, potassium and barium.

10.5. Incompatible materials

Materials to avoid Alkali earth metals.

10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological data for substances

Substance	Sodium Alkyl Sulfate
LD50 oral	Value: > 2000 mg/kg
LD50 dermal	Value: > 2000 mg/kg
	Animal test species: Rat
Substance	Alkyl polyglycoside
LD50 oral	Value: > 2000 mg/kg
	Animal test species: Rat
	Test reference: OECD 401
LD50 dermal	Value: > 2000 mg/kg
	Animal test species: Rabbit
	Test reference: OECD 423
CMR effects	Germ cell mutagenicity : No known chronic or acute health risks. Carcinogenicity: No known chronic or acute health risks. Reproductive toxicity: No known chronic or acute health risks.

Potential acute effects

Skin contact	Liquid may irritate skin.
Eye contact	Spray and vapour in the eyes may cause irritation and smarting.

Delayed effects / repeated exposure

Sensitisation	No known chronic or acute health risks.
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Carcinogenic, Mutagenic or Reprotoxic

Carcinogenicity	No known chronic or acute health risks.
Mutagenicity	No known chronic or acute health risks.
Reproductive toxicity	No known chronic or acute health risks.

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic, fish	Value: > 800 mg/l Fish, species: Rainbow Trout Duration: 96 h
Acute aquatic, Daphnia	Value: ~ 3000 mg/l Daphnia, species: Daphnia Magna Duration: 24 h
Aquatic, comments	On basis of test data.

Toxicological data for substances

Substance	Sodium Alkyl Sulfate
Acute aquatic, fish	Value: ~ 110 mg/l Method of testing: DIN 38412 T15 Species: Leuciscus Idus Duration: 48 h
Acute aquatic, algae	Value: > 100 mg/l Species: Pseudokirchn. Subcapitata Duration: 48 h
Acute aquatic, Daphnia	Value: ~ 240 mg/l Method of testing: DIN 38412 T11 Species: Daphnia Magna Duration: 48 h
Persistence and degradability	The product is easily biodegradable.
Biodegradability	Value: ~ 60 Test period: 10 days
Chemical oxygen demand (COD)	Value: 698

Biological oxygen demand (BOD)	Method of testing: DIN 38408 H41 Value: 494 Test period: 5 days Method of testing: EN 1899-1
Substance	Alkyl polyglycoside
Acute aquatic, fish	Value: ~ 20 mg/l Method of testing: OCDE 203 Species: Cyprinodon Variegatus Duration: 96 hrs
Acute aquatic, algae	Value: ~ 21 mg/l Method of testing: ISO 10253 Species: Skeletonerna Costatum Duration: 72 hrs
Acute aquatic, Daphnia	Value: ~ 150 mg/l Method of testing: ISO 14669 Species: Acartia Tonsa Duration: 48 hrs
Persistence and degradability	The product is easily biodegradable.
Biodegradability	Value: ~ 100 Test period: 28 days Method of testing: OCDE 301E
Bioaccumulation	Bioaccumulation: Is not expected to be bioaccumulable.

12.2. Persistence and degradability

Persistence and degradability The product is expected to be biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential Bioaccumulation: Is not expected to be bioaccumulable.

12.4. Mobility in soil

Mobility The product contains substances, which are water soluble and may spread in water systems.

12.5. Results of PBT and vPvB assessment

PBT assessment results Not Classified as PBT/vPvB by current EU criteria.

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Specify the appropriate methods of disposal	Dispose of waste and residues in accordance with local authority requirements.
Relevant waste regulation	Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (Text with EEA relevance).
EWC waste code	EWC: 160305 organic wastes containing dangerous substances

SECTION 14: Transport information

14.1. UN number

Comments Not applicable. No information required.

14.2. UN proper shipping name

Comment Not applicable. No information required.

14.3. Transport hazard class(es)

Comment Not applicable. No information required.

14.4. Packing group

Comment Not applicable. No information required.

14.5. Environmental hazards

Comment Not applicable. No information required.

14.6. Special precautions for user

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Additional information.

Additional information. The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

SECTION 15: Regulatory information

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

EEC-directive	COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). Methods of evaluating information (Art. 9 Regulation (EC) No 1272/2008): Dangerous Preparations Directive 1999/45/EC. Commission Directive 2006/15/EC of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC.
Legislation and regulations	Directive 2008/68/EC of the European Parliament and of the Council of 24 September 2008 on the inland transport of dangerous goods (Text with EEA relevance).

15.2. Chemical safety assessment

Chemical safety assessment performed Yes

SECTION 16: Other information

Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]	Eye Dam. 1; H318; Calculation method
List of relevant R-phrases (under headings 2 and 3).	R38 Irritating to skin. R36 Irritating to eyes. R41 Risk of serious damage to eyes.
List of relevant H-phrases (Section 2 and 3).	H318 Causes Serious eye damage. H319 Causes serious eye irritation. H315 Causes skin irritation.
Responsible for safety data sheet	Dafo Fomtec AB