

**FORAFAC® 1203**

Version 2.6

Revision Date 21.06.2005

Ref. 13000005009

This SDS adheres to the standards and regulatory requirements of Great Britain and may not meet the regulatory requirements in other countries.

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product information**

Product name : FORAFAC® 1203

Use of the Substance/Preparation : Surfactant, Component for fire extinguishing formulations

Company : DuPont de Nemours (Belgium) BVBA
DuPont Chemical Solutions Enterprise
Ketenislaan 1, Haven 1548
B-9130 Kallo
Belgium

Telephone : +32-3-730.2288

Telefax : +32-3-730.2390

Emergency telephone number : +44-(0)2871-861.313

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature of the preparation : Aqueous surfactant solution., fluoroadditive

Hazardous components

Chemical Name	CAS-No.	EC-No.	Classification	Concentration [%]
Amphoteric Fluorinated Polymer	161278-39-3	500-631-6	R52/53	8 - 14
Butyldiglycol	112-34-5	203-961-6	Xi; R36	25 - 35
Alkyl amido propyl betaine	68877-55-4	272-563-2	Xi; R43	5 - 11
Alkyl Glucoside	68515-73-1	500-220-1	Xi; R41	2 - 6
Diethanolamine	111-42-2	203-868-0	Xn; R22 -R48/22 Xi; R38 -R41	1 - 3
Ethanol	64-17-5	200-578-6	F; R11	<= 2,5

For the full text of the R phrases mentioned in this Section, see Section 16.

3. HAZARDS IDENTIFICATION

Irritating to eyes.
May cause sensitization by skin contact.

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Inhalation of decomposition products in high concentration may cause shortness of breath (lung oedema).

4. FIRST AID MEASURES

- General advice : Remove from exposure, lie down. Never give anything by mouth to an unconscious person. When symptoms persist or in all cases of doubt seek medical advice.
- Inhalation : Move to fresh air. Oxygen or artificial respiration if needed. Call a physician immediately.
- Skin contact : Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water.
- Eye contact : Remove contact lenses. Rinse thoroughly with plenty of water, also under the eyelids. Call a physician immediately.
- Ingestion : Do not induce vomiting without medical advice. Drink 1 or 2 glasses of water. Call a physician immediately.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : water spray, dry chemical, carbon dioxide (CO₂),
- Specific hazards during fire fighting : Hazardous decomposition products
- Special protective equipment for fire-fighters : Wear self-contained breathing apparatus and protective suit.
- Further information : Evacuate personnel to safe areas.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Evacuate personnel to safe areas. Wear personal protective equipment.
- Environmental precautions : Prevent product from entering drains.
- Methods for cleaning up : Dam up. Soak up with inert absorbent material. Sweep up or vacuum up spillage and collect in suitable container for disposal.
- Additional advice : Dispose of in accordance with local regulations.

7. HANDLING AND STORAGE**Handling**

- Advice on safe handling : Do not use pressure to empty drums. Do not breathe vapour. Avoid contact with skin and eyes. Use only in an area equipped with a safety shower. Use only in area provided with appropriate exhaust ventilation. Irritating to eyes and skin.

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Storage

Requirements for storage : Keep container tightly closed in a dry and well-ventilated place. Store in original areas and containers container. Keep away from heat. Keep away from sources of ignition - No smoking.

Advice on common storage : Keep away from: strong oxidizing agents

Other data : Stable under normal conditions.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Components with workplace control parameters**

Components	CAS-No.	Type Form of exposure	Control parameters	Update	Basis
Diethanolamine	111-42-2	TWA	13 mg/m ³ 3 ppm	2001	EH40 OES
Ethanol	64-17-5	TWA	1 920 mg/m ³ 1 000 ppm	2003	EH40 OES

Engineering measures

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Respiratory protection : In case of insufficient ventilation wear suitable respiratory equipment.

Hand protection : impervious gloves

Eye protection : safety glasses with side-shields goggles

Skin and body protection : protective suit

Hygiene measures : Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Wash contaminated clothing before re-use. Do not inhale aerosol.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form : liquid,

Colour : brown,

Odour : characteristic,



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pH	:	8,5
Melting point/range	:	-22 °C
Boiling point/range	:	95 °C at 1 013 hPa
Flash point	:	> 100 °C , Method: closed cup
Thermal decomposition	:	no data available,
Relative density	:	1,07 at 20 °C
Water solubility	:	, completely soluble

10. STABILITY AND REACTIVITY

Conditions to avoid	:	To avoid thermal decomposition, do not overheat.
Materials to avoid	:	strong oxidizing agents, metals
Hazardous decomposition products	:	Carbon monoxide, Carbon oxides, hydrogen fluoride
Hazardous reactions	:	Heating can release hazardous gases. Stable under normal conditions.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity

- Amphoteric Fluorinated Polymer : LD50 /rat > 5 000 mg/kg
- Butyldiglycol : LD50 /rat 5 660 mg/kg
- Diethanolamine : LD50 /rat 1 820 mg/kg
- Ethanol : LD50 /rat 13 000 mg/kg

Acute inhalation toxicity

- Diethanolamine : ALC / 1,3 h /rat : 6,3 mg/l
- Ethanol : LC50 / 4 h /rat : 32 mg/l

Acute dermal toxicity

- Butyldiglycol : LD50 /rabbit : 4 000 mg/kg
- Diethanolamine : LD50 /rabbit : 12 200 mg/kg
- Ethanol : LD50 /rabbit : 20 000 mg/kg

Skin irritation

: rabbit
slight irritation

Eye irritation

: rabbit
Eye irritation

Sensitization

: guinea pig Causes sensitization on guinea-pigs.

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Human experience : Excessive exposures may affect human health, as follows:

- Inhalation
Respiratory system: irritation
- Skin contact
irritation, itching, redness, rash, burn, swelling of tissue
- Eye contact
irritation, corrosion, ulceration
- Ingestion
Gastrointestinal tract: irritation, pain, nausea, vomiting, diarrhoea

12. ECOLOGICAL INFORMATION**Ecotoxicity effects**

Toxicity to fish : LC50 /96 h /goldfish :: 470 mg/l
Method: OECD Test Guideline 203

Toxicity to fish

- Butyldiglycol : LC50 /96 h /Lepomis macrochirus (Bluegill sunfish) : 1 300 mg/l
- Diethanolamine : LC50 /96 h /Fathead minnow : 837 mg/l
- Ethanol : LC50 /96 h /Fathead minnow : 13 480 mg/l

Toxicity to algae : /EC50 /72 h /Algae 9,6 mg/l

Toxicity to daphnia : /EC50 /48 h /Daphnia: > 100 mg/l
Method: ISO 6341

13. DISPOSAL CONSIDERATIONS

Product : Dispose of as special waste in compliance with local and national regulations.

Contaminated packaging : If recycling is not practicable, dispose of in compliance with local regulations.

14. TRANSPORT INFORMATION

Further Information : Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION

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Labelling according to EC Directives

Symbol(s)	: Xi	Irritant
Hazardous components:	Alkyl amido propyl betaine	
R-phrase(s)	: R36 R43	Irritating to eyes. May cause sensitization by skin contact.
S-phrase(s)	: S24 S26 S37 S60	Avoid contact with skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves. This material and/or its container must be disposed of as hazardous waste.

16. OTHER INFORMATION**Text of R phrases mentioned in Section 2**

R11	Highly flammable.
R22	Harmful if swallowed.
R36	Irritating to eyes.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.
R43	May cause sensitization by skin contact.
R48/22	Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.