

SAFETY DATA SHEET

According to OSHA Hazard Communication Standard Rule - 29 CFR 1910.1200 and the Canadian Hazardous Products Act



Fortakleen 100

SUBID:000001014097

Version 1

Print Date 02-16-2016

Revision Date 06-16-2015

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Identification of the substance or mixture:

Product name : Fortakleen 100
MSDS Number : 000001014097

1.2 Use of the substance/mixture:

Use of the Substance/Preparation : Cleaning agent

1.3 Company/undertaking identification

Agfa Corporation
611 River Drive
Center 3
Elmwood Park, NJ 07407
U.S.A.

Transport Emergency

Non-transportation

Call CHEMTREC : +1 800 4249300
International : +1 703 5273887

Health Emergency Phone : +1 303 6235716
Agfa Information Phone : +1 201 4402500

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

GHS (Globally Harmonized System of Classification and Labelling of Chemicals)

This product is not regulated according to the criteria of the United States, Occupational Safety and Health Administration (OSHA), Hazard Communication, 29 Code of Federal Regulation 1910.1200.

2.2 Label elements:

This product is not regulated according to the criteria of the United States, Occupational Safety and Health Administration (OSHA), Hazard Communication, 29 Code of Federal Regulation 1910.1200.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixture related information:

Cleaning agent, mainly consisting of:

3.2 Hazard ingredients:

The hazard and labelling information in this section is that of the individual ingredients. The corresponding information relative to this product as supplied is given in section 2.1.

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Hazardous components

- 2-Butoxyethanol Concentration [%] : 5.0 - 10.0
CAS-No. : 111-76-2
Hazard classes : Acute toxicity Oral, Acute toxicity Dermal, Acute toxicity Inhalation, Serious eye irritation, Skin irritation
Hazard categories : Category 4, Category 4, Category 4, Category 2, Category 2
Hazard statements : H302, H312, H332, H319, H315

Components with a community workplace exposure limit

- 2-Butoxyethanol
- Silica

3.3 Remark:

Full text of each relevant H-phrase is listed in section 16.

SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measures:

- Eye contact : Immediately flush eye(s) with plenty of water. Consult an oculist if necessary.
- Skin contact : Wash off with soap and water.
- Ingestion : Rinse mouth with plenty of water. Consult a physician if necessary. Do not induce vomiting.
- Inhalation : Take patient to fresh air if necessary. Consult a physician if necessary.

4.2 Most important symptoms and effects:

- Symptoms : In normal conditions of use, no adverse effects are expected.

4.3 Indication of immediate medical attention and special treatment needed:

- General advice : Call a physician immediately.

SECTION 5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

- Suitable extinguishing media : Alcohol-resistant foam., Carbon dioxide (CO₂)., Dry extinguishing powder., Water.Dry extinguishing powder., Alcohol-resistant foam., Carbon dioxide (CO₂)., Water spray.
- Extinguishing media which must not be used for safety reasons : Do not use a solid water stream as it may scatter and spread fire.Do not use a solid water stream as it may scatter and spread fire.

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5.2 Special hazards arising from the substance or mixture:

- Specific hazards during fire fighting : Do not use a solid water stream as it may scatter and spread fire.
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

5.3 Advice for fire-fighters:

- Special protective equipment for fire-fighters : Regular fire intervention clothes.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

- Personal precautions : Cleanup personnel must use appropriate personal protective equipment.
- Additional advice : Observe normal precautions when handling chemicals.

6.2 Environmental precautions:

- Environmental precautions : The product should not be allowed to enter drains, water courses or the soil.

6.3 Methods and material for containment and cleaning up:

- Methods for cleaning up : Dike the spill if necessary. If spill occurs, apply a suitable absorbent material and collect into an impervious waste container. Collect the product in a plastic vessel. Carefully collect leftovers.

6.4 Reference to other sections:

- For waste disposal see section 13.
For personal protection see section 8.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling:

- Advice on safe handling : Prevent product from diffusing.
- Hygiene measures : Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product. Emergency showers and eye wash stations should be available.

7.2 Conditions for safe storage:

- Requirements for storage : Keep container tightly closed. Keep in a dry place.

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areas and containers

Further information on storage : Keep container in a well-ventilated place.

conditions

Advice on common storage : Store away from strong oxidizing agents. Store away from strong alkalis.

7.3 Specific end use:

This substance is used only by trained professionals under restricted conditions.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters:

8.1.1 Components with occupational exposure limits resp. biological occupational exposure limits requiring monitoring:

8.1.1.1 Occupational exposure limits:

Air limit values (US)

- 2-Butoxyethanol

CAS-No.: 111-76-2

Basis	Revision Date	Value	Type
ACGIH	2004	20 ppm	TWA
NIOSH	06 1997	24 mg/m3	REL
		5 ppm	
OSHA Z1	06 1993	240 mg/m3	PEL
		50 ppm	
TN OEL	06 2008	120 mg/m3	TWA
		25 ppm	

- Silica

CAS-No.: 7631-86-9

Basis	Revision Date	Value	Type
NIOSH	06 1997	6 mg/m3	REL
OSHA Z1A	1989	6 mg/m3	TWA
TN OEL	06 2008	6 mg/m3	TWA

Air limit values (CA)

- 2-Butoxyethanol

CAS-No.: 111-76-2

Basis	Revision Date	Value	Type
CAD ON OEL	09 2000	20 ppm	TWAEV
CAD AB OEL	10 2003	97 mg/m3	TWA
CAD BC	03 2004	20 ppm	TWA

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OEL			
OEL (QUE)	12 2008	97 mg/m3	TWA
CAD SK OEL	05 2009	20 ppm	8 HR ACL
CAD SK OEL	05 2009	30 ppm	15 MIN ACL
CAD MB	03 2011	20 ppm	TWA
OEL			

- Silica

CAS-No.: 7631-86-9

Basis	Revision Date	Value	Type
CAD BC	03 2004	4 mg/m3	TWA
OEL			
CAD BC	03 2004	1.5 mg/m3	TWA
OEL			
CAD ON	09 2000	10 mg/m3	TWAEV
OEL			
OEL (QUE)	12 2008	6 mg/m3	TWA

Biological limit values (US)

- 2-Butoxyethanol

CAS-No.: 111-76-2

Basis	Value	Investigation parameter	Sampling time	Biological specimen
ACGIH BEL	200 mg/g	Butoxyacetic acid (BAA), with hydrolysis	Sampling time: End of shift.	Creatinine in urine

Biological limit values (CA)

We are not aware of any national exposure limit.

8.1.1.2 Additional exposure limits under the conditions of use:

No other exposure limits applicable.

8.2 Exposure controls:

Occupational exposure controls:

➤ **Instruction measures to prevent exposure:**

Employees should wash their hands and face before eating, drinking, or using tobacco products. Keep away from foodstuffs, drinks and tobacco.

➤ **Technical measures to prevent exposure:**

Ensure adequate ventilation.

➤ **Personal measures to prevent exposure:**

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Respiratory protection	:	not required under normal use Under normal conditions of use, respirator protection is not required. If respirators are used, institute a program in accordance with OSHA standard 29CFR1910.134 or Canada CSA Standard Z94.4-02.
Hand protection	:	Use chemical resistant gloves. In case of prolonged immersion or frequently repeated contact use gloves made of the materials: butylrubber (thickness ≥ 0.70 mm, breakthrough time > 480 min).(EN 374). The use of protective gloves should conform to the specifications of EC directive 89/686/EC and the resultant standard EN374. Additional advice: The data are based on own tests, literature data and information of glove manufacturers or derived from similar substances. Because several factors may influence these properties (eg temperature), one should take into account the fact that the life of a chemical gloves in practice may be considerably shorter than indicated by the permeation test. The high diversity of types of use are prescribed by the manufacturer.
Eye protection	:	Safety goggles. EN 166.
Body Protection	:	Safety clothes : long sleeved clothing EN13688
Personal protective equipment	:	Observe normal precautions when handling chemicals.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Basic physical and chemical properties:

9.1.1 Appearance:

State of matter	:	Liquid
Form	:	Liquid.
Color	:	No data available
Odor	:	No information available.
Odor threshold	:	No data available

9.1.2 Important health, safety and environmental information:

pH	:	4.5	
Melting point/range	:	< 0 °C	Method: Literature.
Boiling point/range	:	> 100 °C	Method: Literature.
Flash point	:	> 100 °C	Method: Literature.
Autoignition temperature	:	No data available	
Vapour pressure	:	No data available	
Relative vapour density	:	No data available	
Relative density	:	1.046	
Density	:	No data available	
Solubility/qualitative	:	Miscible with water at all ratios.	
Water solubility	:	No data available	
Partition coefficient (n-octanol/water)	:	No data available	

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Viscosity, dynamic : No data available
Viscosity, kinematic : No data available
Lower explosion limit : No data available
Upper explosion limit : No data available
Evaporation rate : No data available
Flammability (solid, gas) : Not flammable.

9.2 Other information:

VOC content : 76.4 g/l
VOC content excluding water

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity:

Reactivity : Reactivity is not to be expected under normal conditions of temperature and pressure.

10.2 Chemical stability:

Stability : The product is stable under normal conditions of storage and use.

10.3 Possibility of hazardous reactions:

Hazardous reactions : The product is stable under normal conditions of storage and use.

10.4 Conditions to avoid:

Conditions to avoid : Avoid contact with strong oxidizing agents.

10.5 Materials to avoid:

Materials to avoid : Store away from strong alkalis.

10.6 Hazardous decomposition products:

Hazardous decomposition products : No specified dangerous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Toxicity data specific for individual ingredients in their pure state:

Toxicokinetics, metabolism and distribution:

No data available

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Acute effects (toxicity tests):

➤ Acute Toxicity

- 2-Butoxyethanol

	Effect dose	Species	Value	Method
Acute oral toxicity	LD50	rat	1,750 mg/kg	OECD Test Guideline 401
Acute dermal toxicity	LD50	rabbit	220 to 2,000 mg/kg	OECD Test Guideline 402
Acute inhalation toxicity	LC50	rat	2.9 mg/l/ 7 h	

➤ Specific target organ toxicity (STOT):

- 2-Butoxyethanol

Specific effects	Affected organs
No data available	

➤ Irritant and corrosive effects:

- 2-Butoxyethanol

	Exposure time	Species	Evaluation	Method
Primary irritation to the skin		rabbit	No skin irritation	Literature.
Irritation to eyes		rabbit	No eye irritation	Literature.

➤ Irritation to the respiratory tract:

- 2-Butoxyethanol

No data available

➤ Sensitisation:

- 2-Butoxyethanol

Species	Evaluation	Method
guinea pig	Causes sensitization on guinea-pigs. Causes sensitization on guinea-pigs. May cause sensitization of susceptible persons by skin contact.	OECD Test Guideline 406

➤ Aspiration hazard:

- 2-Butoxyethanol

No data available

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Sub-acute, sub-chronic and chronic toxicity

➤ Repeated dose toxicity:

- 2-Butoxyethanol

	Effect dose	Value	Exposure time	Species
Sub-chronic oral		69 to 82 mg/kg		rat
Method: Directive 92/32/EEC, Annex V, B.8.				

➤ Specific target organ toxicity (STOT):

- 2-Butoxyethanol

No information available.

➤ CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):

- Carcinogenicity

- 2-Butoxyethanol

There was no evidence of cancer in male mice following chronic oral administration. Based on available data, the classification criteria are not met.

- Mutagenicity

- 2-Butoxyethanol

Tests on bacterial or mammalian cell cultures did not show mutagenic effects. Based on available data, the classification criteria are not met.

- Genetic toxicity in vitro

- 2-Butoxyethanol

Type	Test system	Concentration	Result
Ames test	Escherichia coli WP2 uvr A; Salmonella typhimurium TA98, TA100, TA535, TA1537 Method: OECD Test Guideline 471.		negative

- Genetic toxicity in vivo

- 2-Butoxyethanol

Route of exposure	Species	Exposure time	Result
Oral			negative
Method: Mutagenicity (micronucleus test)			

- Teratogenicity

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- 2-Butoxyethanol

No teratogenic effects observed at the doses tested. Based on available data, the classification criteria are not met.

- **Toxicity to reproduction**

- 2-Butoxyethanol

Has not caused reproductive effects in male or female animals when administered orally at dose levels not causing systemic toxicity Based on available data, the classification criteria are not met.

➤ **Summarised evaluation of the CMR properties:**

- 2-Butoxyethanol

Carcinogenicity : Based on available data, the classification criteria are not met.
Mutagenicity : Based on available data, the classification criteria are not met.
Teratogenicity : Based on available data, the classification criteria are not met.
Toxicity to reproduction : Based on available data, the classification criteria are not met.

Experiences made in practice:

Consult your supplier if the material is to be used for special applications such as in the food industry or for hygiene, medical or surgical end-use.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity:

- 2-Butoxyethanol

	Effect dose	Exposure time	Species	Value
Toxicity to fish	LC50	96 h	Oncorhynchus mykiss (rainbow trout)	1,490 mg/l
	Method: OECD Test Guideline 203			
	Based on available data, the classification criteria are not met.			
Toxicity to daphnia	EC50	48 h	Daphnia magna (water flea)	> 1,698 mg/l
	Method: OECD Test Guideline 202			
	Based on available data, the classification criteria are not met.			
Toxicity to algae	EC50	72 h	Scenedesmus subspicatus (algae)	911 mg/l
	Method: OECD Test Guideline 201			
	Based on available data, the classification criteria are not met.			
Toxicity to bacteria	EC0	16 h	Pseudomonas putida (bacteria)	> 700 mg/l

12.2 Persistence and degradability:

Physico-chemical removability

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Neutralization is normally necessary before waste water is discharged into water treatment plants.

Chemical Oxygen Demand (COD)

No data available

Adsorbed organic bound halogens (AOX)

Product does not contain any organic halogens.

Biodegradation

No data available

Biochemical Oxygen Demand (BOD)

No data available

12.3 Bioaccumulative potential:

Partition coefficient (n-octanol/water)

No data available

Bioconcentration factor (BCF)

No data available

12.4 Mobility in soil:

No information available.

Henry's constant

Value	Temperature	Method
		No information available.

Transport between environmental compartments

No data available

12.5 Results of PBT and vPvB assessment:

This product does not meet the criteria concerning PBT or vPvB substances as described in Annex XIII of the REACH regulation (1907/2006 EC)

12.6 Other adverse effects:

This substance is not in Annex I of Regulation (EC) 2037/2000 on substances that deplete the ozone layer. When properly applied, negative effects on the functionality of waste treatment plants are not expected. Avoid infiltration in to drinking supplies, waste water or soil. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

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SECTION 13. DISPOSAL CONSIDERATIONS

Waste disposal methods

Waste disposal should be in accordance with existing federal, state and local environmental control laws. Discharge to sewer may require approval of permitting authority and may require pretreatment.

Empty containers.

Recondition or dispose of empty container in accordance with governmental regulations.

US. RCRA Hazardous Waste Classification (40 CFR 261)

If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

SECTION 14. TRANSPORT INFORMATION

Not regulated according to IMO/IMDG.

Not regulated according to ICAO/IATA aircraft only.

Not regulated according to ICAO/IATA passenger and cargo aircraft.

Not Regulated according to US Department of Transportation (DOT) 49 CFR

Not regulated according to Transport of Dangerous Goods (TDG)

SECTION 15. REGULATORY INFORMATION

US. Toxic Substances Control Act (TSCA)

All of the components of this product are listed on the TSCA Inventory.

US. OSHA Classification

This product is non hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

US. SARA 311/312 Hazard Categories

No SARA Hazards

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required

- 2-Butoxyethanol : De minimis concentration: 1.0 %
- : Reportable threshold: 10,000 lbs
- : Reportable threshold: 25,000 lbs

US. EPA CERCLA Hazardous Substances (40 CFR 302)

US. California Prop. 65

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This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other harm.

State Right-to-Know Information

The following chemicals are specifically listed by individual states. Other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

US. Massachusetts, New Jersey, Pennsylvania or Rhode Island Right to Know Substance Lists :
See Section 2.

Canadian WHMIS Classification

Not regulated.

Canadian Environmental Protection Act (CEPA)

All components of this product are on the Canadian DSL list.

SECTION 16. OTHER INFORMATION

Text of H-phrases referred to under headings 2 and 3:

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.

This MSDS is replacing Agfa MSDS number 1531G

This information is furnished without warranty, expressed or implied, and is believed to be accurate to the best knowledge of Agfa Corporation. The data on this SDS relates only to the specific material designated herein. Agfa Corporation assumes no legal responsibility for use or reliance upon these data. This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.