

SAFETY DATA SHEET

Alurex Forte

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

1.1 Product identifier

Product name : Alurex Forte
Product description : Cleaning solutions.
Product type : Liquid.

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

Identified uses	
Industrial use Professional use	
Uses advised against	Reason
Consumer use	Product is not intended for consumer use.

1.3 Details of the supplier of the safety data sheet

Rust-Oleum Europe - Martin Mathys NV, Kolenbergstraat 23, B-3545 Zelem, Belgium
 Telephone no.: +32 (0) 13 460 200
 Fax no.: +32 (0) 13 460 201

e-mail address of person responsible for this SDS : rpmeurohas@rustoleum.eu

1.4 Emergency telephone number

Supplier

Telephone number : +44 (0) 207 858 1228
Hours of operation : 24 / 7

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Acute Tox. 2, H300
 Acute Tox. 1, H310
 Acute Tox. 3, H331
 Skin Corr. 1A, H314
 Eye Dam. 1, H318

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : Danger

SECTION 2: Hazards identification

Hazard statements	: Fatal if swallowed or in contact with skin. Toxic if inhaled. Causes severe skin burns and eye damage.
<u>Precautionary statements</u>	
General	: Not applicable.
Prevention	: P264 - Wash hands thoroughly after handling. P271 - Use only outdoors or in a well-ventilated area. P270 - Do not eat, drink or smoke when using this product. P280 - Wear protective gloves and face protection: - Wear apron or coverall if there is a risk of exposure to splashes. Goggles, face shield or other full-face protection where potential exists for direct exposure to aerosols or splashes.
Response	: P304 - IF INHALED: P340 - Remove person to fresh air and keep comfortable for breathing. P310 - Immediately call a doctor. P301 - IF SWALLOWED: P330 - Rinse mouth. P331 - Do NOT induce vomiting. P303 - IF ON SKIN (or hair): P361 - Take off immediately all contaminated clothing. P353 - Rinse skin with water or shower. P305 - IF IN EYES: P351 - Rinse cautiously with water for several minutes. P338 - Remove contact lenses, if present and easy to do. Continue rinsing.
Storage	: P403 - Store in a well-ventilated place. P233 - Keep container tightly closed. P405 - Store locked up.
Disposal	: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazardous ingredients	: hydrofluoric acid
Supplemental label elements	: Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : For professional use only.

Special packaging requirements

Containers to be fitted with child-resistant fastenings	: Not applicable.
Tactile warning of danger	: Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	:
Other hazards which do not result in classification	: None known.

SECTION 3: Composition/information on ingredients**3.2 Mixtures** : Mixture

Product/ingredient name	Identifiers	%	Classification	
			Regulation (EC) No. 1272/2008 [CLP]	Type
hydrofluoric acid	EC: 231-634-8 CAS: 7664-39-3 Index: 009-003-00-1	≥10 - ≤25	Acute Tox. 2, H300 Acute Tox. 1, H310 Acute Tox. 2, H330 Skin Corr. 1A, H314 Eye Dam. 1, H318 Skin Corr. 1B, H314 Eye Dam. 1, H318	[1] [2]
orthophosphoric acid	REACH #: 01-2119485924-24 EC: 231-633-2 CAS: 7664-38-2 Index: 015-011-00-6	≤10	Eye Irrit. 2, H319	[1] [2]
1,2,3-Propanetricarboxylic acid, 2-hydroxy-, hydrate (1:1)	REACH #: 01-2119457026-42 EC: 201-069-1 CAS: 5949-29-1	≤5		[1]
2-butoxyethanol	REACH #: 01-2119475108-36 EC: 203-905-0 CAS: 111-76-2 Index: 603-014-00-0	≤5	Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 See Section 16 for the full text of the H statements declared above.	[1] [2]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

- [1] Substance classified with a health or environmental hazard
 [2] Substance with a workplace exposure limit
 [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
 [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
 [5] Substance of equivalent concern
 [6] Additional disclosure due to company policy

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures**4.1 Description of first aid measures**

- General** : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.
- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention immediately. Chemical burns must be treated promptly by a physician.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention immediately. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners. Get medical attention immediately. Chemical burns must be treated promptly by a physician. Continue to rinse for at least 10 minutes.

SECTION 4: First aid measures

- Ingestion** : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting. Chemical burns must be treated promptly by a physician. Wash out mouth with water if person is conscious.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

There are no data available on the mixture itself. See Sections 2 and 3 for details.

Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
- Ingestion** : Adverse symptoms may include the following:
stomach pains

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

See toxicological information (Section 11)

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Recommended: alcohol-resistant foam, CO₂, powders, water spray.
- Unsuitable extinguishing media** : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
phosphorus oxides
halogenated compounds

5.3 Advice for firefighters

SECTION 5: Firefighting measures

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

- : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

6.4 Reference to other sections

- : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance.

7.1 Precautions for safe handling

- : Keep away from heat, sparks and flame. No sparking tools should be used. Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture. Avoid inhalation of dust from sanding.
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
Put on appropriate personal protective equipment (see Section 8).
Never use pressure to empty. Container is not a pressure vessel.
Always keep in containers made from the same material as the original one.
Comply with the health and safety at work laws.
Do not allow to enter drains or watercourses.

SECTION 7: Handling and storage

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations.

Notes on joint storage

Keep away from: oxidising agents, strong alkalis, strong acids.

Additional information on storage conditions

Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight. Keep away from sources of ignition. No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end use(s)

Recommendations : Reserved for industrial and professional use.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
hydrofluoric acid	EH40/2005 WELs (United Kingdom (UK), 12/2011). STEL: 2,5 mg/m ³ , (as F) 15 minutes. STEL: 3 ppm, (as F) 15 minutes. TWA: 1,5 mg/m ³ , (as F) 8 hours. TWA: 1,8 ppm, (as F) 8 hours.
orthophosphoric acid	EH40/2005 WELs (United Kingdom (UK), 12/2011). STEL: 2 mg/m ³ 15 minutes. TWA: 1 mg/m ³ 8 hours.
2-butoxyethanol	EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin. STEL: 50 ppm 15 minutes. TWA: 25 ppm 8 hours.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

SECTION 8: Exposure controls/personal protection

Product/ingredient name	Type	Exposure	Value	Population	Effects
orthophosphoric acid	DNEL	Long term Inhalation	2,92 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	0,73 mg/m ³	Consumers	Local
2-butoxyethanol	DNEL	Short term Inhalation	426 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	38 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	49 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	135 mg/m ³	Consumers	Systemic
	DNEL	Short term Inhalation	50 mg/m ³	Consumers	Local
	DNEL	Long term Dermal	75 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Inhalation	20 mg/m ³	Consumers	Systemic
	DNEL	Long term Oral	3,2 mg/kg bw/day	Consumers	Systemic
	DNEL	Short term Dermal	44,5 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Oral	13,4 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	123 mg/m ³	Workers	Local
	DNEL	Long term Oral	3,2 mg/kg bw/day	Workers	Systemic

PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
1,2,3-Propanetricarboxylic acid, 2-hydroxy-, hydrate (1:1)	Fresh water	0,44 mg/l	-
	Marine	0,044 mg/l	-
	Fresh water sediment	3,46 mg/kg	-
	Marine water sediment	34,6 mg/kg	-
	Soil	33,1 mg/kg	-
	Sewage Treatment Plant	>1000 mg/l	-
2-butoxyethanol	Fresh water	8,8 mg/l	-
	Marine	0,88 mg/l	-
	Sewage Treatment Plant	463 mg/l	-
	Fresh water sediment	34,6 mg/kg	-
	Marine water sediment	3,46 mg/kg	-
	Secondary Poisoning	2,8 mg/kg	-

8.2 Exposure controls

Appropriate engineering controls : Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapours below the OEL, suitable respiratory protection must be worn.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

SECTION 8: Exposure controls/personal protection

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead. Recommended: safety glasses with side-shields. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection**Hand protection**

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The breakthrough time must be greater than the end use time of the product.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Always ensure that gloves are free from defects and that they are stored and used correctly.

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

Gloves : For prolonged or repeated handling, use the following type of gloves:

Recommended: neoprene or butyl rubber (0.6 mm) gloves

The recommendation for the type or types of glove to use when handling this product is based on information from the following source:

EN 374

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Wear suitable protective clothing and eye/face protection.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: acid gas filter (Type E) (EN 140)

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties****Appearance**

Physical state	: Liquid.
Colour	: Colourless.
Odour	: acidic smell [Slight]
Odour threshold	: Not available.
pH	: 0 to 1 [Conc. (% w/w): 100%]
Melting point/freezing point	: Not available.
Initial boiling point and boiling range	: >100°C
Flash point	: Closed cup: >61°C

Alurex Forte

SECTION 9: Physical and chemical properties

Evaporation rate	: Not available.
Flammability (solid, gas)	: Not available.
Upper/lower flammability or explosive limits	: Lower: 1,1% Upper: 10,6%
Vapour pressure	: 2,1 kPa [room temperature]
Vapour density	: Not available.
Relative density	: 1,05
Solubility(ies)	: Not available.
Partition coefficient: n-octanol/ water	: Not available.
Auto-ignition temperature	: >240°C
Decomposition temperature	: Not available.
Viscosity	: Not available.
Explosive properties	: Not available.
Oxidising properties	: Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: Stable under recommended storage and handling conditions (see Section 7).
10.3 Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: When exposed to high temperatures may produce hazardous decomposition products.
10.5 Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.
10.6 Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced. If involved in a fire, toxic gases including CO, CO ₂ and smoke can be generated.

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
hydrofluoric acid	LC50 Inhalation Gas.	Rat	1276 ppm	1 hours
	LC50 Inhalation Vapour	Rat	1100 mg/m ³	60 minutes
orthophosphoric acid	LD50 Dermal	Rabbit	2740 mg/kg	-
	LD50 Oral	Rat	1,25 g/kg	-
1,2,3-Propanetricarboxylic acid, 2-hydroxy-, hydrate (1:1)	LD50 Oral	Mouse	5400 mg/kg	-
	LD50 Oral	Rat	3000 mg/kg	-

Conclusion/Summary : Toxic if inhaled. Fatal if swallowed. Fatal in contact with skin.

SECTION 11: Toxicological information

Acute toxicity estimates

Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
hydrofluoric acid	Eyes - Severe irritant	Human	-	50 milligrams	-
	Skin - Severe irritant	Rat	-	3 minutes 50 Percent	-
1,2,3-Propanetricarboxylic acid, 2-hydroxy-, hydrate (1:1)	Eyes - Mild irritant	Rabbit	-	0,5 minutes 5 milligrams	-
2-butoxyethanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Severe irritant	Rabbit	-	100 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-

Conclusion/Summary

- Skin** : Causes severe skin burns and eye damage.
- Eyes** : Causes serious eye damage.
- Respiratory** : Based on available data, the classification criteria are not met.

Sensitisation

Conclusion/Summary

- Skin** : Based on available data, the classification criteria are not met.
- Respiratory** : Based on available data, the classification criteria are not met.

Mutagenicity

- Conclusion/Summary** : Based on available data, the classification criteria are not met.

Carcinogenicity

- Conclusion/Summary** : Based on available data, the classification criteria are not met.

Reproductive toxicity

- Conclusion/Summary** : Based on available data, the classification criteria are not met.

Teratogenicity

- Conclusion/Summary** : Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

Not available.

Alurex Forte

SECTION 11: Toxicological information

Conclusion/Summary	: Based on available data, the classification criteria are not met.
General	: No known significant effects or critical hazards.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

Other information : Not available.

SECTION 12: Ecological information**12.1 Toxicity**

There are no data available on the mixture itself.
Do not allow to enter drains or watercourses.

Product/ingredient name	Result	Species	Exposure
orthophosphoric acid 1,2,3-Propanetricarboxylic acid, 2-hydroxy-, hydrate (1:1)	Acute LC50 138 mg/l	Fish	24 hours
	Acute LC50 >400 mg/l	Fish	96 hours
2-butoxyethanol	Acute EC50 1700 to 1940 mg/l	Daphnia spec. - Daphnia magna	24 hours
	Acute EC50 >1000 mg/l Fresh water	Daphnia spec. - Daphnia magna	48 hours
	Acute LC50 1000 mg/l Marine water	Crustaceans - Chaetogammarus marinus - Young	48 hours
	Acute LC50 1000 to 800000 µg/l Marine water	Crustaceans - Crangon crangon	48 hours
	Acute LC50 1490000 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours
Acute LC50 1250000 µg/l Marine water	Fish - Menidia beryllina	96 hours	

Conclusion/Summary : Based on available data, the classification criteria are not met.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
2-butoxyethanol	OECD 301E	>70 % - Readily - 28 days	-	-
	-	32,27 % - Inherent - 5 days	-	-

Conclusion/Summary : The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2-butoxyethanol	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
1,2,3-Propanetricarboxylic acid, 2-hydroxy-, hydrate (1:1)	-1,72	-	low
2-butoxyethanol	0,81	-	low

12.4 Mobility in soil

Alurex Forte

SECTION 12: Ecological information

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance.

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : Yes.

Disposal considerations : Do not allow to enter drains or watercourses. Dispose of according to all federal, state and local applicable regulations. If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned. For further information, contact your local waste authority.

European waste catalogue (EWC)

The European Waste Catalogue classification of this product, when disposed of as waste, is:

Waste code	Waste designation
11 01 06*	acids not otherwise specified

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Disposal considerations : Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers. Empty containers must be scrapped or reconditioned. Dispose of containers contaminated by the product in accordance with local or national legal provisions.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

Alurex Forte

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	UN1790	UN1790	UN1790	UN1790
14.2 UN proper shipping name	Hydrofluoric acid solution, not more than 60 per cent hydrogen fluoride (hydrofluoric acid)	Hydrofluoric acid solution, not more than 60 per cent hydrogen fluoride (hydrochloric acid)	Hydrofluoric acid solution, not more than 60 per cent hydrogen fluoride (hydrofluoric acid)	Hydrofluoric acid solution, not more than 60 per cent hydrogen fluoride (hydrofluoric acid)
14.3 Transport hazard class(es)	8 (6.1) 	8 (6.1) 	8 (6.1) 	8 (6.1) 
14.4 Packing group	II	II	II	II
14.5 Environmental hazards	No.	No.	No.	No.
Additional information	Limited quantity LQ22 Tunnel code (E) Remarks (≤ 1L:) Limited Quantity - ADR/IMDG 3.4	-	Emergency schedules F-A-S-B Remarks (≤ 1L:) Limited Quantity - ADR/IMDG 3.4	Quantity limitation Passenger and Cargo Aircraft: 1 L. Packaging instructions: 855. Cargo Aircraft Only: 30 L. Packaging instructions: 851. Limited Quantities - Passenger Aircraft: 0,5 L. Packaging instructions: Y840.

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : For professional use only.

Other EU regulations

VOC for Ready-for-Use Mixture : Not applicable.

SECTION 15: Regulatory information

Europe inventory : All components are listed or exempted.

Black List Chemicals (76/464/EEC) :

Industrial emissions (integrated pollution prevention and control) - Air : Listed

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

National regulations

The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

References : EH40/2005 Workplace exposure limits
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2016/918

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

CN code : 3405 90 90

International lists

National inventory

Australia : All components are listed or exempted.
Canada : All components are listed or exempted.
China : All components are listed or exempted.
Japan : **Japan inventory (ENCS)**: All components are listed or exempted.
Japan inventory (ISHL): Not determined.
Malaysia : Not determined.
New Zealand : All components are listed or exempted.
Philippines : All components are listed or exempted.
Republic of Korea : All components are listed or exempted.
Taiwan : All components are listed or exempted.
Turkey : Not determined.
United States : All components are listed or exempted.

Alurex Forte

SECTION 15: Regulatory information

Thailand :
Viet Nam :

15.2 Chemical safety assessment : No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Acute Tox. 2, H300	Expert judgment
Acute Tox. 1, H310	Expert judgment
Acute Tox. 3, H331	On basis of test data
Skin Corr. 1A, H314	Expert judgment
Eye Dam. 1, H318	Expert judgment

Full text of H-phrases referred to in sections 2 and 3

Full text of abbreviated H statements :	H300 H302 H310 H312 H314 H315 H318 H319 H330 H331 H332	Fatal if swallowed. Harmful if swallowed. Fatal in contact with skin. Harmful in contact with skin. Causes severe skin burns and eye damage. Causes skin irritation. Causes serious eye damage. Causes serious eye irritation. Fatal if inhaled. Toxic if inhaled. Harmful if inhaled.
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Full text of classifications [CLP/GHS] :	Acute Tox. 1, H310 Acute Tox. 2, H300 Acute Tox. 2, H330 Acute Tox. 3, H331 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Eye Dam. 1, H318 Eye Irrit. 2, H319 Skin Corr. 1A, H314 Skin Corr. 1B, H314 Skin Irrit. 2, H315	ACUTE TOXICITY (dermal) - Category 1 ACUTE TOXICITY (oral) - Category 2 ACUTE TOXICITY (inhalation) - Category 2 ACUTE TOXICITY (inhalation) - Category 3 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 SKIN CORROSION/IRRITATION - Category 1A SKIN CORROSION/IRRITATION - Category 1B SKIN CORROSION/IRRITATION - Category 2
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Version : 3

Notice to reader

SECTION 16: Other information

The information in this Safety Data Sheet is based on the present state of knowledge and current legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications. The product should not be used for purposes other than those shown in Section 1 without first referring to the supplier and obtaining written handling instructions. As the specific conditions of use of the product are outside the supplier's control, the user is responsible for ensuring that the requirements of relevant legislation are complied with. The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation.