

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 08.07.2014

Revision: 08.07.2014

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

- **Product identifier**
- **Trade name:** *Arundo flex Reinigungsspray*
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** *Auxiliary for dental technology*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
*Baumann Dental GmbH
Frankenstr. 25
75210 Kelttern Ellmendingen
Tel: 07236-93369-0
Fax: 07236-93369-99*
- **Further information obtainable from:**
*Produktmanagement
Herr Amann
Tel.:07236-93369-0*
- **Emergency telephone number:**
*Erreichbar: Mo - Do 8-17 Uhr, Fr 8-15 Uhr
Tel.:+49 (0)7236-93369-0*

2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.



GHS07

<i>Skin Irrit. 2</i>	<i>H315</i>	<i>Causes skin irritation.</i>
<i>Eye Irrit. 2</i>	<i>H319</i>	<i>Causes serious eye irritation.</i>
<i>STOT SE 3</i>	<i>H336</i>	<i>May cause drowsiness or dizziness.</i>

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Xi; Irritant

R36/38: Irritating to eyes and skin.



F+; Extremely flammable

R12: Extremely flammable.

R67: Vapours may cause drowsiness and dizziness.

- **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

- **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- **Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

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· **Hazard pictograms**

GHS02 GHS07

· **Signal word** *Danger*· **Hazard-determining components of labelling:***propan-2-ol*· **Hazard statements***H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.**H315 Causes skin irritation.**H319 Causes serious eye irritation.**H336 May cause drowsiness or dizziness.*· **Precautionary statements***P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.**P251 Do not pierce or burn, even after use.**P211 Do not spray on an open flame or other ignition source.**P261 Avoid breathing dust/fume/gas/mist/vapours/spray.**P280 Wear protective gloves / eye 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.**P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.**P312 Call a POISON CENTER or doctor/physician if you feel unwell.**P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.**P501 Dispose of contents/container in accordance with local/regional/national/international regulations.*· **Additional information:***Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.**Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking.**Keep out of the reach of children*· **Other hazards**· **Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**· **Description:** Mixture of substances listed below with nonhazardous additions.· **Dangerous components:**

CAS: 29387-86-8 EINECS: 249-598-7	<i>butoxypropan-1-ol</i> ☒ Xi R36/38 ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319	25-50%
CAS: 67-63-0 EINECS: 200-661-7	<i>propan-2-ol</i> ☒ Xi R36; ☒ F R11 R67 ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	25-50%

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CAS: 74-98-6 EINECS: 200-827-9	propane F+ R12 Flam. Gas 1, H220; Press. Gas, H280	10-25%
CAS: 106-97-8 EINECS: 203-448-7	butane F+ R12 Flam. Gas 1, H220; Press. Gas, H280	2.5-10%

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

- **Description of first aid measures**
- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
If symptoms persist consult doctor.
Rinse out mouth and then drink plenty of water.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:** Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.

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- Protect against electrostatic charges.
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.
Do not spray onto a naked flame or any incandescent material.
- **Conditions for safe storage, including any incompatibilities**
 - **Storage:**
 - **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
Observe official regulations on storing packagings with pressurized containers.
 - **Information about storage in one common storage facility:** Not required.
 - **Further information about storage conditions:**
Keep container tightly sealed.
Do not seal receptacle gas tight.
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
 - **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**

· Ingredients with limit values that require monitoring at the workplace:	
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67-63-0 propan-2-ol	
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WEL	Short-term value: 1250 mg/m ³ , 500 ppm Long-term value: 999 mg/m ³ , 400 ppm
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106-97-8 butane	
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WEL	Short-term value: 1810 mg/m ³ , 750 ppm Long-term value: 1450 mg/m ³ , 600 ppm Carc (if more than 0.1% of buta-1.3-diene)
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- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.
- **Respiratory protection:** Use suitable respiratory protective device in case of insufficient ventilation.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

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- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **As protection from splashes gloves made of the following materials are suitable:**
Nitrile rubber, NBR
Butyl rubber, BR
Fluorocarbon rubber (Viton)
- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Aerosol
Colour:	Colourless
Odour:	Characteristic
- **Change in condition**
Melting point/Melting range: Undetermined.
Boiling point/Boiling range: -44 °C
- **Flash point:** -97 °C
- **Ignition temperature:** 260 °C
- **Self-igniting:** Product is not selfigniting.
- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
- **Explosion limits:**

Lower:	1.1 Vol %
Upper:	12.0 Vol %
- **Vapour pressure at 20 °C:** 8300 hPa
- **Density at 20 °C:** 0.727 g/cm³
- **Solubility in / Miscibility with water:** Partly miscible.
- **Viscosity:**

Dynamic:	Not applicable. Not determined.
Kinematic:	Not applicable. Not determined.
- **Solvent content:**

Organic solvents:	67.0 %
VOC (EC)	67 %
- **Other information** No further relevant information available.

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10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values relevant for classification:**

29387-86-8 butoxypropan-1-ol

Oral	LD50	>3300 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rab)

67-63-0 propan-2-ol

Oral	LD50	5045 mg/kg (rat)
Dermal	LD50	12800 mg/kg (rabbit)
Inhalative	LC50/4 h	30 mg/l (rat)

106-97-8 butane

Inhalative	LC50/4 h	658 mg/l (rat)
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- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Irritant

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

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13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**
- **ADR, IMDG, IATA** UN1950
- **UN proper shipping name**
- **ADR** 1950 AEROSOLS
- **IMDG** AEROSOLS
- **IATA** AEROSOLS, flammable
- **Transport hazard class(es)**
- **ADR**
- 
- **Class** 2 5F Gases.
- **Label** 2.1
- **IMDG, IATA**
- 
- **Class** 2.1
- **Label** 2.1
- **Packing group**
- **ADR, IMDG, IATA** Void
- **Environmental hazards:**
- **Marine pollutant:** No
- **Special precautions for user** Warning: Gases.
- **Danger code (Kemler):** -
- **EMS Number:** F-D,S-U
- **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.
- **Transport/Additional information:**
- **ADR**
- **Excepted quantities (EQ):** E0
- **Limited quantities (LQ)** 1L
- **Transport category** 2
- **Tunnel restriction code** D

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· UN "Model Regulation": UN1950, AEROSOLS, 2.1

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS02 GHS07

- **Signal word** *Danger*
- **Hazard-determining components of labelling:**
propan-2-ol
- **Hazard statements**
H222-H229 *Extremely flammable aerosol. Pressurised container: May burst if heated.*
H315 *Causes skin irritation.*
H319 *Causes serious eye irritation.*
H336 *May cause drowsiness or dizziness.*
- **Precautionary statements**
P210 *Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.*
P251 *Do not pierce or burn, even after use.*
P211 *Do not spray on an open flame or other ignition source.*
P261 *Avoid breathing dust/fume/gas/mist/vapours/spray.*
P280 *Wear protective gloves / eye 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.*
P304+P340 *IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.*
P312 *Call a POISON CENTER or doctor/physician if you feel unwell.*
P410+P412 *Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.*
P501 *Dispose of contents/container in accordance with local/regional/national/international regulations.*
- **Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**
H220 *Extremely flammable gas.*
H225 *Highly flammable liquid and vapour.*
H280 *Contains gas under pressure; may explode if heated.*
H315 *Causes skin irritation.*
H319 *Causes serious eye irritation.*
H336 *May cause drowsiness or dizziness.*
R11 *Highly flammable.*
R12 *Extremely flammable.*
R36 *Irritating to eyes.*

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*R36/38 Irritating to eyes and skin.**R67 Vapours may cause drowsiness and dizziness.***Abbreviations and acronyms:***RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)**IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)**ICAO: International Civil Aviation Organization**ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)**ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)**IMDG: International Maritime Code for Dangerous Goods**IATA: International Air Transport Association**GHS: Globally Harmonized System of Classification and Labelling of Chemicals**EINECS: European Inventory of Existing Commercial Chemical Substances**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**VOC: Volatile Organic Compounds (USA, EU)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**** Data compared to the previous version altered.**

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