

**Safety Data Sheet**  
according to Regulation (EC) No. 1907/2006 (REACH)  
according to Regulation (EU) No 453/2010

Article No.: 3810-0L-K1283 B R A F A P O L - L GIESSHARZ  
Print date: 07.09.2015 Revision date: 18.06.2015 105003 EN  
Version: 22-0 Issue date: 13.05.2015 Page 1 / 9

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

**1.1. Product identifiers**

Article No. (manufacturer/supplier) 3810-0L-K1283  
Identification of the substance or mixture B R A F A P O L - L GIESSHARZ  
zum Herstellen v. Schuhleisten  
100 : 8 Härterpulver

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

**Relevant identified uses:**  
cast resin

**1.3. Details of the supplier of the safety data sheet**

**Supplier (manufacturer/importer/only representative/downstream user/distributor)**

Teleplast GmbH & Co. KG  
Petzvalstrasse 37 Telephone: +49 531 237 28-0  
D 38104 Braunschweig Telefax: +49 531 237 28-12

**Dept. responsible for information:**

Laboratory  
E-mail sicherheitsdatenblaetter@teleplast.de

**1.4. Emergency telephone number**

GIZ-Nord Poisons Centre +49 551 19240  
(german / english) (german / english)

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

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

This mixture is classified as hazardous according to regulation (EC) No. 1272/2008 [CLP].

Flam. Liq. 3 / H226	flammable liquids	Flammable liquid and vapour.
Skin Irrit. 2 / H315	skin corrosion/irritation	Causes skin irritation.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
Repr. 2 / H361	Reproductive toxicity	Suspected of damaging fertility or the unborn child.
STOT SE 3 / H335	Specific target organ toxicity (single exposure)	May cause respiratory irritation.
STOT RE 1 / H372	Specific target organ toxicity (repeated exposure)	Causes damage to organs through prolonged or repeated exposure.

**2.2. Label elements**

**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

**Hazard pictograms**



**Danger**

**Hazard statements**

H226 Flammable liquid and vapour.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H361 Suspected of damaging fertility or the unborn child.  
H335 May cause respiratory irritation.  
H372 Causes damage to organs through prolonged or repeated exposure.

**Precautionary statements**

P202 Do not handle until all safety precautions have been read and understood.  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P241 Use explosion-proof electrical equipment.  
P243 Take precautionary measures against static discharge.  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P264 Wash hands thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.

**Safety Data Sheet**  
according to Regulation (EC) No. 1907/2006 (REACH)  
according to Regulation (EU) No 453/2010



Article No.: 3810-0L-K1283 B R A F A P O L - L G I E S S H A R Z  
Print date: 07.09.2015 Revision date: 18.06.2015 105003 EN  
Version: 22-0 Issue date: 13.05.2015 Page 2 / 9

P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P312 Call a POISON CENTER or doctor/physician if you feel unwell.  
P332 + P313 If skin irritation occurs: Get medical advice/attention.  
P337 + P313 If eye irritation persists: Get medical advice/attention.  
P362 Take off contaminated clothing.  
P370 + P378 In case of fire: Use foam to extinguish.  
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P502 Refer to manufacturer/supplier for information on recovery/recycling.

**contains:**

Styren

**Supplemental Hazard information (EU)**

not applicable

2.3. **Other hazards**

**SECTION 3: Composition / information on ingredients**

3.2. **Mixtures**

**Product description / chemical characterization**

**Description** unsaturated polyester

**Hazardous ingredients**

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

EC No.	REACH No.	Wt %
CAS No.	Chemical name	Remark
INDEX No.	classification	
202-851-5 100-42-5	01-2119457861-32-XXXX Styren Flam. Liq. 3 H226 / Acute Tox. 4 H332 / Skin Irrit. 2 H315 / Eye Irrit. 2 H319 / Repr. 2 H361 / Asp. Tox. 1 H304 / STOT RE 1 H372 / STOT SE 3 H335	25 - 50
254-075-1 38668-48-3	01-2119980937-17-xxxx Diisopropanol-p-toluidine Acute Tox. 2 H300 / Eye Irrit. 2 H319 / Aquatic Acute 3 H402 / Aquatic Chronic 3 H412	0,1 - 0,5

**Additional information**

Full text of classification: see section 16

**SECTION 4: First aid measures**

4.1. **Description of first aid measures**

**General information**

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

**Following inhalation**

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

**Following skin contact**

Remove contaminated, saturated clothing immediately. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

**After eye contact**

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

**After ingestion**

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

Article No.:	3810-0L-K1283	B R A F A P O L - L G I E S S H A R Z	105003 EN
Print date:	07.09.2015	Revision date: 18.06.2015	Page 3 / 9
Version:	22-0	Issue date: 13.05.2015	

4.2. **Most important symptoms and effects, both acute and delayed**  
In all cases of doubt, or when symptoms persist, seek medical advice.

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

#### **SECTION 5: Firefighting measures**

5.1. **Extinguishing media**

**Suitable extinguishing media:**

alcohol resistant foam, carbon dioxide, Powder, spray mist, (water)

**Extinguishing media which must not be used for safety reasons:**

strong water jet

5.2. **Special hazards arising from the substance or mixture**

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

5.3. **Advice for firefighters**

Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways. Treat runoff as hazardous.

#### **SECTION 6: Accidental release measures**

6.1. **Personal precautions, protective equipment and emergency procedures**

Keep away from sources of ignition. Ventilate affected area. Do not breathe vapours.

6.2. **Environmental precautions**

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

6.3. **Methods and material for containment and cleaning up**

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see chapter 13). Clean using cleansing agents. Do not use solvents.

6.4. **Reference to other sections**

Observe protective provisions (see chapter 7 and 8).

#### **SECTION 7: Handling and storage**

7.1. **Precautions for safe handling**

**Advices on safe handling**

Avoid formation of flammable and explosive vapour concentrations in the air and exceeding the exposure limit values. Only use the material in places where open light, fire and other flammable sources can be kept away. Electrical equipment must be protected meeting the accepted standard. Product may become electrostatically charged. Provide earthing of containers, equipment, pumps and ventilation facilities. Anti-static clothing including shoes are recommended. Floors must be electrically conductive. Keep away from heat sources, sparks and open flames. Use only spark proof tools. Avoid contact with skin, eyes and clothes. Do not inhale dusts, particulates and spray mist when using this preparation. Avoid respiration of swarf. When using do not eat, drink or smoke. Personal protection equipment: refer to chapter 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

**Precautions against fire and explosion:**

Vapours are heavier than air. Vapours form explosive mixtures with air.

7.2. **Conditions for safe storage, including any incompatibilities**

**Requirements for storage rooms and vessels**

Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (TRBS 2153)".

**Hints on joint storage**

Keep away from strongly acidic and alkaline materials as well as oxidizers.

**Further information on storage conditions**

Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 10 °C and 30 °C. Protect from heat and direct sunlight. Keep container tightly closed. Remove all sources of ignition. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

Article No.: 3810-0L-K1283 B R A F A P O L - L GIESSHARZ  
Print date: 07.09.2015 Revision date: 18.06.2015  
Version: 22-0 Issue date: 13.05.2015

105003 EN  
Page 4 / 9

7.3. **Specific end use(s)**

Observe technical data sheet. Observe instructions for use.

**SECTION 8: Exposure controls/personal protection**

8.1. **Control parameters**

**Occupational exposure limit values:**

styrene

EC No. 202-851-5 / CAS No. 100-42-5

TWA: 430 mg/m<sup>3</sup>; 100 ppm

STEL: 1080 mg/m<sup>3</sup>; 250 ppm

**Additional information**

TWA : long-term occupational exposure limit value

STEL : short-term occupational exposure limit value

Ceiling : peak limitation

**DNEL:**

Diisopropanol-p-toluidine

EC No. 254-075-1 / CAS No. 38668-48-3

DNEL long-term dermal (systemic), Workers: 0,6 mg/kg

DNEL acute inhalative (systemic), Workers: 2 mg/m<sup>3</sup>

DNEL long-term dermal (systemic), Consumer: 0,3 mg/kg

DNEL acute inhalative (systemic), Consumer: 0,4 mg/m<sup>3</sup>

Styren

EC No. 202-851-5 / CAS No. 100-42-5

DNEL long-term dermal (systemic), Workers: 406 mg/kg

DNEL acute inhalative (local), Workers: 306 mg/m<sup>3</sup>

DNEL acute inhalative (systemic), Workers: 289 mg/m<sup>3</sup>

DNEL long-term inhalative (local), Workers: 85 mg/m<sup>3</sup>

DNEL long-term inhalative (systemic), Workers: 85 mg/m<sup>3</sup>

DNEL long-term oral (repeated), Consumer: 2,1 mg/kg

DNEL long-term dermal (systemic), Consumer: 406 mg/kg

DNEL acute inhalative (local), Consumer: 182,75 mg/m<sup>3</sup>

DNEL acute inhalative (systemic), Consumer: 174,25 mg/m<sup>3</sup>

DNEL long-term inhalative (systemic), Consumer: 10,2 mg/m<sup>3</sup>

**PNEC:**

Diisopropanol-p-toluidine

EC No. 254-075-1 / CAS No. 38668-48-3

PNEC aquatic, freshwater: 0,017 mg/L

PNEC aquatic, marine water: 0,0017 mg/L

PNEC aquatic, intermittent release: 0,17 mg/L

PNEC sediment, freshwater: 0,0782 mg/kg

PNEC sediment, marine water: 0,0078 mg/kg

PNEC, Soil: 0,005 mg/kg

PNEC sewage treatment plant (STP): 199,5 mg/L

Styren

EC No. 202-851-5 / CAS No. 100-42-5

PNEC aquatic, freshwater: 0,028 mg/L

PNEC aquatic, marine water: 0,0028 mg/L

PNEC aquatic, intermittent release: 0,04 mg/L

PNEC sediment, freshwater: 0,614 mg/kg

PNEC sediment, marine water: 0,0614 mg/kg

PNEC, Soil: 0,2 mg/kg

PNEC sewage treatment plant (STP): 5 mg/L

8.2. **Exposure controls**

Provide good ventilation. This can be achieved with local or room suction. If this should not be sufficient to keep aerosol and solvent vapour concentration below the exposure limit values, a suitable respiratory protection must be used.

**Occupational exposure controls**

**Respiratory protection**

**Safety Data Sheet**  
according to Regulation (EC) No. 1907/2006 (REACH)  
according to Regulation (EU) No 453/2010



Article No.: 3810-0L-K1283 B R A F A P O L - L G I E S S H A R Z  
Print date: 07.09.2015 Revision date: 18.06.2015  
Version: 22-0 Issue date: 13.05.2015

105003 EN  
Page 5 / 9

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190). Use only respiratory protection equipment with CE-symbol including four digit test number.

**Hand protection**

For prolonged or repeated handling the following glove material must be used: nitrile rubber  
Thickness of the glove material > 0,4 mm ; Breakthrough time (maximum wearing time) > 480 min.  
Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin. Recommended glove articles DIN EN 374  
Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

**Eye protection**

Wear closely fitting protective glasses in case of splashes.

**Protective clothing**

Wear antistatic clothing of natural fibers (cotton) or heat resistant synthetic fibers.

**Protective measures**

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

**Environmental exposure controls**

Do not allow to enter into surface water or drains. See chapter 7. No additional measures necessary.

**SECTION 9: Physical and chemical properties**

9.1. **Information on basic physical and chemical properties**

**Appearance:**

**Physical state** liquid  
**Colour** see trade name  
**Odour** characteristic

Safety relevant basis data	Unit	Method	Remark
<b>Flash point:</b>	31 °C	determined	
<b>Ignition temperature in °C:</b>	490 °C	literature value	
<b>Lower explosion limit:</b>	1,1 Vol-%	literature value	
<b>Upper explosion limit:</b>	6,1 Vol-%	literature value	
<b>Vapour pressure at 20 °C:</b>	1,85 mbar	literature value	
<b>Density at 20 °C:</b>	1,19 g/cm <sup>3</sup>	determined	according to DIN 53 217
<b>Water solubility (g/L):</b>	partially soluble		
<b>pH at 20 °C:</b>	-		
<b>Viscosity at 20 °C:</b>	1950 mPa·s	EN ISO 3219:1994	
<b>Solvent separation test (%):</b>	< 3 %	ADR/RID	
<b>Solid content (%):</b>	72,06 Wt %		
<b>solvent content:</b>			
<b>Organic solvents:</b>	27,80 Wt %		
<b>Water:</b>	0,00 Wt %		

9.2. **Other information**

**SECTION 10: Stability and reactivity**

10.1. **Reactivity**

10.2. **Chemical stability**

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to chapter 7.

10.3. **Possibility of hazardous reactions**

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

10.4. **Conditions to avoid**

Hazardous decomposition byproducts may form with exposure to high temperatures.

10.5. **Incompatible materials**

10.6. **Hazardous decomposition products**

Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide,

**Safety Data Sheet**  
according to Regulation (EC) No. 1907/2006 (REACH)  
according to Regulation (EU) No 453/2010



Article No.: 3810-0L-K1283 B R A F A P O L - L G I E S S H A R Z  
Print date: 07.09.2015 Revision date: 18.06.2015  
Version: 22-0 Issue date: 13.05.2015

105003 EN  
Page 6 / 9

smoke, nitrogen oxides. none, if used correctly none, if used correctly

### SECTION 11: Toxicological information

Classification according to Regulation (EC) No. 1272/2008 [CLP]  
No data on preparation itself available.

#### 11.1. Information on toxicological effects

##### Acute toxicity

Diisopropanol-p-toluidine

oral, LD50, Rat: 25 - 200 mg/kg

Styren

oral, LD50, Rat: > 5000 mg/kg

dermal, LD50, Rat: > 2000 mg/kg

Method: OECD 402

inhalative (vapours), LC50, Rat: 11,8 mg/L (4 h)

Harmful by inhalation.

##### skin corrosion/irritation; Serious eye damage/eye irritation

Diisopropanol-p-toluidine

Eyes

Styren

Skin, Rabbit

Causes skin irritation.

Eyes, Rabbit

Causes serious eye irritation.

##### Respiratory or skin sensitisation

Toxicological data are not available.

##### CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Styren

Germ cell mutagenicity; evaluation Not mutagenic

Method: In vivo test

Carcinogenicity; evaluation Caused in laboratory animals fibrosis and lung tumors. The observed tumors do not seem to be relevant for humans.

Reproductive toxicity

Developmental toxicity/teratogenicity

not teratogenic

##### Specific target organ toxicity

Styren

Specific target organ toxicity (single exposure):

headache; dizziness; Nausea

Specific target organ toxicity (single exposure), Irritation:

May cause respiratory irritation.

Specific target organ toxicity (repeated exposure):

Causes damage to organs through prolonged or repeated exposure.

Specific target organ toxicity (single exposure), high concentrations:

headache; dizziness; Nausea

##### Aspiration hazard

Styren

Aspiration hazard

Aspiration may cause pulmonary edema and pneumonitis.; May be fatal if swallowed and enters airways.

##### Practical experience/human evidence

Other observations:

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: headache, dizziness, fatigue, amyosthenia, drowsiness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.



Article No.: 3810-0L-K1283 B R A F A P O L - L G I E S S H A R Z  
Print date: 07.09.2015 Revision date: 18.06.2015  
Version: 22-0 Issue date: 13.05.2015

105003 EN  
Page 7 / 9

#### Overall Assessment on CMR properties

The ingredients in this mixture do not meet the criteria for classification as CMR category 1A or 1B according to CLP.

### SECTION 12: Ecological information

#### overall evaluation

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

There is no information available on the preparation itself .

Do not allow to enter into surface water or drains.

#### 12.1. Toxicity

Diisopropanol-p-toluidine

Fish toxicity, LC50: (96 h)

Styren

Fish toxicity, LC50, Pimephales promelas: 4,02 mg/L (96 h)

Daphnia toxicity, EC50, Daphnia magna (Big water flea): 4,7 mg/L (48 h)

Algae toxicity, EC50, Pseudokirchneriella subcapitata: 4,9 mg/L (72 h)

Bacteria toxicity, EC20: 140 mg/L (30 min)

Method: OECD 209

#### Long-term Ecotoxicity

Diisopropanol-p-toluidine

Fish toxicity, LC50: (96 h)

#### 12.2. Persistence and degradability

Styren

Biodegradation: 71 % (28 D)

Theoretical oxygen demand (ThOD):

Persistence :

The product floats on water and does not dissolve. It evaporates easily from the water surface.

Biodegradation: 100 % (14 D)

Method: OECD 302

#### 12.3. Bioaccumulative potential

Styren

Bioaccumulative potential:

No indication of bioaccumulation potential.

: 2,96

#### 12.4. Mobility in soil

Styren

Mobility in soil: evaluation Highly mobile in soil

#### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

#### 12.6. Other adverse effects

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### Appropriate disposal / Product Recommendation

Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

##### List of proposed waste codes/waste designations in accordance with EWC

080111 waste paint and varnish containing organic solvents or other dangerous substances

##### packaging

##### Recommendation

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

### SECTION 14: Transport information

**Safety Data Sheet**  
according to Regulation (EC) No. 1907/2006 (REACH)  
according to Regulation (EU) No 453/2010



Article No.: 3810-0L-K1283 B R A F A P O L - L GIESSHARZ  
Print date: 07.09.2015 Revision date: 18.06.2015 105003 EN  
Version: 22-0 Issue date: 13.05.2015 Page 8 / 9

- 14.1. **UN number** 1263
- 14.2. **UN proper shipping name**  
Land transport (ADR/RID): Paint  
Sea transport (IMDG): PAINT  
Air transport (ICAO-TI / IATA-DGR): Paint
- 14.3. **Transport hazard class(es)**  
Land transport (ADR/RID): NONE, according to RN 2301/301  
bei Gebinden > 450 l Klasse 3  
Sea transport (IMDG) 3  
for packages < 30 litres: Transport in accordance with 2.3.2.5 of the IMDG Code.  
Air transport (ICAO-TI / IATA-DGR) 3
- 14.4. **Packing group** III
- 14.5. **Environmental hazards**  
Land transport (ADR/RID) not applicable  
Marine pollutant not applicable
- 14.6. **Special precautions for user**  
Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.  
Advices on safe handling: see parts 6 - 8
- Additional information**
- Land transport (ADR/RID)**  
tunnel restriction code D/E  
SONDERVORSCHRIFT 640E
- Sea transport (IMDG)**  
EmS-No. F-E, S-E
- 14.7. **Transport in bulk according to Annex II of MARPOL and the IBC Code**  
not applicable

### SECTION 15: Regulatory information

- 15.1. **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- EU legislation**
- Information according to 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline).**  
VOC-value (in g/L) ISO 11890-2: 332,3  
VOC-value (in g/L) ASTM D 2369: 332,3
- National regulations**
- Restrictions of occupation**  
Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.  
Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).
- Other regulations, restrictions and prohibition regulations**
- 15.2. **Chemical Safety Assessment**  
Chemical safety assessments for substances in this preparation were not carried out.

### SECTION 16: Other information

**Full text of classification in section 3:**

Flam. Liq. 3 / H226	flammable liquids	Flammable liquid and vapour.
Acute Tox. 4 / H332	Acute toxicity (inhalative)	Harmful if inhaled.
Skin Irrit. 2 / H315	skin corrosion/irritation	Causes skin irritation.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
Repr. 2 / H361	Reproductive toxicity	Suspected of damaging the unborn child.
Asp. Tox. 1 / H304	Aspiration hazard	May be fatal if swallowed and enters airways.
STOT RE 1 / H372	Specific target organ toxicity (repeated)	Causes damage to organs (or state all organs)



**Safety Data Sheet**  
according to Regulation (EC) No. 1907/2006 (REACH)  
according to Regulation (EU) No 453/2010



Article No.: 3810-0L-K1283 B R A F A P O L - L GIESSHARZ  
Print date: 07.09.2015 Revision date: 18.06.2015  
Version: 22-0 Issue date: 13.05.2015

105003 EN  
Page 9 / 9

---

	exposure)	affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard). May cause respiratory irritation.
STOT SE 3 / H335	Specific target organ toxicity (single exposure)	
Acute Tox. 2 / H300	Acute toxicity (oral)	Fatal if swallowed.
Aquatic Acute 3 / H402	Hazardous to the aquatic environment	Harmful to aquatic life.
Aquatic Chronic 3 / H412	Hazardous to the aquatic environment	Harmful to aquatic life with long lasting effects.

**Abbreviations and acronyms**

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

**Additional information**

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

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in chapter 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.