

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended.

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

### 1.1 Product identifier

**Product name:** ARIGI FLUSH

**Product No.:** 000001016477

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

**Identified uses:** Flushing solution

**Uses advised against:** Reserved for industrial and professional use.

### 1.3 Details of the supplier of the safety data sheet

#### Manufacturer

Agfa Graphics NV  
Septestraat 27  
2640 Mortsel  
Belgium

**Telephone:** +32 3 4442111

**Fax:** +32 3 4447094

**E-mail:** [electronic.sds@agfa.com](mailto:electronic.sds@agfa.com)

#### National Supplier

Agfa-Gevaert Ltd.  
Vantage West  
Great West Road  
Brentford, Middlesex TW8 9AX  
United Kingdom

**Telephone:** +44 (0)20 8 231 4616

**Fax:** +44 (0)20 8 231 4951

**E-mail:** [electronic.sds@agfa.com](mailto:electronic.sds@agfa.com)

### 1.4 Emergency telephone number:

Emergency telephone number (Belgium) : +32 3 4443333 (24h/24h)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

The product has not been classified as hazardous according to the legislation in force.

**Classification according to Regulation (EC) No 1272/2008 as amended.**

Not classified

### 2.2 Label Elements

not applicable

### 2.3 Other hazards

Not fulfilling PBT (persistent/bioaccumulative/toxic) criteria Not fulfilling vPvB (very persistent/very bioaccumulative) criteria

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

**General information:** No hazardous ingredients.

## SECTION 4: First aid measures

**General:** CAUTION! First aid personnel must be aware of own risk during rescue!

### 4.1 Description of first aid measures

**Inhalation:** Move to fresh air.

**Skin Contact:** Remove contaminated clothing and wash the skin thoroughly with soap and water after work.

**Eye contact:** Rinse immediately with plenty of water.

**Ingestion:** Rinse mouth thoroughly.

**4.2 Most important symptoms and effects, both acute and delayed:** See section 11 of the SDS for additional information on health hazards.

### 4.3 Indication of any immediate medical attention and special treatment needed

**Hazards:** See section 11 of the SDS for additional information on health hazards.

**Treatment:** Get medical attention if symptoms occur.

## SECTION 5: Firefighting measures

**General Fire Hazards:** No unusual fire or explosion hazards noted.

### 5.1 Extinguishing media

**Suitable extinguishing media:** Extinguish with foam, carbon dioxide, dry powder or water fog.

**Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire.

### 5.2 Special hazards arising from the substance or mixture:

During fire, gases hazardous to health may be formed.

### 5.3 Advice for firefighters

**Special fire fighting procedures:** No data available.

**Special protective equipment for fire-fighters:** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures:

Use personal protective equipment. Put on protective equipment before entering danger area.

- 6.2 Environmental Precautions:** Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water sources or sewer. Environmental manager must be informed of all major spillages.
- 6.3 Methods and material for containment and cleaning up:** Stop the flow of material, if this is without risk. Absorb with sand or other inert absorbent.
- 6.4 Reference to other sections:** See Section 8 of the SDS for Personal Protective Equipment. For waste disposal, see section 13 of the SDS.

## SECTION 7: Handling and storage:

- 7.1 Precautions for safe handling:** Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
- 7.2 Conditions for safe storage, including any incompatibilities:** Store away from incompatible materials.
- 7.3 Specific end use(s):** Reserved for industrial and professional use.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control Parameters

#### Occupational Exposure Limits

None of the components have assigned exposure limits.

#### DNEL-Values

Critical component	Type	Route of Exposure	Health Warnings	Remarks
1-(2-Butoxy-1-methylethoxy)propan-2-ol	General population	Oral	Systemic, long-term; 7.5 mg/kg	Repeated dose toxicity
	General population	Dermal	Systemic, long-term; 1.1 mg/kg	Repeated dose toxicity
	Workers	Inhalation	Systemic, long-term; 10 mg/m3	Repeated dose toxicity
	Workers	Dermal	Systemic, long-term; 3 mg/kg	Repeated dose toxicity
	General population	Inhalation	Systemic, long-term; 1.2 mg/m3	Repeated dose toxicity

#### PNEC-Values

Critical component	Environmental compartment	PNEC-Values
1-(2-Butoxy-1-methylethoxy)propan-2-ol	Marine sediments	0.296 mg/kg
	Sewage treatment plant	100 mg/l
	soil	0.287 mg/kg
	Aquatic (marine water)	0.0519 mg/l
	freshwater sediment	2.96 mg/kg
	Aquatic (freshwater)	0.519 mg/l
	Aquatic (intermit. releases)	5.19 mg/l

### 8.2 Exposure controls

**Appropriate Engineering Controls:** Provide adequate ventilation.

**Individual protection measures, such as personal protective equipment**

<b>General information:</b>	Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. Follow training instructions when handling this material.
<b>Eye/face protection:</b>	Safety goggles. EN 166.
<b>Skin protection</b>	
<b>Hand Protection:</b>	Protective gloves should be used if there is a risk of direct contact or splash.(EN374) Chemical resistant gloves required for prolonged or repeated contact. Butyl rubber. Glove thickness: > 0.70 mm Break-through time: > 480 min Risk of splashes: Nitrile rubber. Nitrile gloves are recommended, but be aware that the liquid may penetrate the gloves. Frequent change is advisable. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.
<b>Other:</b>	Safety clothes : long sleeved clothing EN13688
<b>Respiratory Protection:</b>	In case of inadequate ventilation use suitable respirator (EN14387). Seek advice from local supervisor.
<b>Hygiene measures:</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.
<b>Environmental Controls:</b>	Do not empty into drains.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

<b>Physical state:</b>	liquid
<b>Form:</b>	liquid
<b>Color:</b>	Colorless
<b>Odor:</b>	Characteristic
<b>Odor Threshold:</b>	No data available.
<b>pH:</b>	No data available.
<b>Freezing point:</b>	-75 °C
<b>Boiling Point:</b>	229 °C
<b>Flash Point:</b>	> 100 °C
<b>Evaporation Rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	No data available.
<b>Flammability Limit - Upper (%):</b>	20.4 %(V)
<b>Flammability Limit - Lower (%):</b>	0.60 %(V)
<b>Vapor pressure:</b>	0.06 hPa (20 °C)
<b>Vapor density (air=1):</b>	No data available.
<b>Density:</b>	No data available.
<b>Relative density:</b>	0.91 (20 °C)
<b>Solubility(ies)</b>	
<b>Solubility in Water:</b>	45 g/l (20 °C)
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	1.130
<b>Autoignition Temperature:</b>	189 °C

**Decomposition Temperature:** No data available.  
**SADT:** No data available.  
**Viscosity:** No data available.  
**Explosive properties:** No data available.  
**Oxidizing properties:** No data available.

**9.2 Other information**

**VOC Content:** EC Directive 1999/13: 910 g/l ~100 % (calculated)  
 EC Directive 2004/42: 910 g/l ~100 % (calculated)  
**Minimum ignition temperature:** 189 °C  
**Metal Corrosion:**

**SECTION 10: Stability and reactivity**

**10.1 Reactivity:** Material is stable under normal conditions.  
**10.2 Chemical Stability:** Material is stable under normal conditions.  
**10.3 Possibility of hazardous reactions:** Not known.  
**10.4 Conditions to avoid:** Avoid heat or contamination.  
**10.5 Incompatible Materials:** None known.  
**10.6 Hazardous Decomposition Products:** By heating and fire, harmful vapors/gases may be formed.

**SECTION 11: Toxicological information**

**Information on likely routes of exposure**

**Inhalation:** Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.  
**Skin Contact:** Moderately irritating to skin with prolonged exposure.  
**Eye contact:** Eye contact is possible and should be avoided.  
**Ingestion:** May be ingested by accident. Ingestion may cause irritation and malaise.

**11.1 Information on toxicological effects**

**Acute toxicity**

**Oral**

**Product:** Not classified for acute toxicity based on available data.  
**Specified substance(s)**

**Dermal**

**Product:** Not classified for acute toxicity based on available data.  
**Specified substance(s)**

**Inhalation**

**Product:** Not classified for acute toxicity based on available data.

**Specified substance(s)**

**Repeated dose toxicity**

**Product:** No data available.

**Specified substance(s)**

**Skin Corrosion/Irritation:**

**Product:** No data available.

**Specified substance(s)**

**Serious Eye Damage/Eye**

**Irritation:**

**Product:** No data available.

**Specified substance(s)**

**Respiratory or Skin**

**Sensitization:**

**Product:** No data available.

**Specified substance(s)**

**Germ Cell Mutagenicity**

**In vitro**

**Product:** No data available.

**In vivo**

**Product:** No data available.

**Carcinogenicity**

**Product:** No data available.

**Reproductive toxicity**

**Product:** No data available.

**Specific Target Organ Toxicity - Single Exposure**

**Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.

**Aspiration Hazard**

**Product:** No data available.

## SECTION 12: Ecological information

### 12.1 Toxicity

**Acute toxicity**

**Fish**

**Product:** No data available.

**Aquatic Invertebrates**

**Product:** No data available.

**Chronic Toxicity**

**Fish**  
**Product:** No data available.

**Aquatic Invertebrates**  
**Product:** No data available.

**Toxicity to Aquatic Plants**  
**Product:** No data available.

## 12.2 Persistence and Degradability

**Biodegradation**  
**Product:** No data available.

**BOD/COD Ratio**  
**Product** No data available.

## 12.3 Bioaccumulative potential

**Product:** No data available.

**12.4 Mobility in soil:** No data available.  
**Known or predicted distribution to environmental compartments**

**12.5 Results of PBT and vPvB assessment:** Not fulfilling PBT (persistent/bioaccumulative/toxic) criteria Not fulfilling vPvB (very persistent/very bioaccumulative) criteria

**12.6 Other adverse effects:** No data available.

**12.7 Additional Information:** No data available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

**General information:** Disposal considerations (including disposal of contaminated containers or packaging) Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Disposal methods:** Wash before disposal. Dispose to controlled facilities.

Since emptied containers retain product residue, follow label warnings even after container is emptied.

## SECTION 14: Transport information

### ADR

14.1 UN Number: Not regulated.  
14.2 UN Proper Shipping Name: Not regulated.  
14.3 Transport Hazard Class(es) Not regulated.  
14.4 Packing Group: Not regulated.

14.5 Environmental Hazards: Not regulated.  
14.6 Special precautions for user: Not regulated.

**RID**

14.1 UN Number: Not regulated.  
14.2 UN Proper Shipping Name: Not regulated.  
14.3 Transport Hazard Class(es) Not regulated.  
14.4 Packing Group: Not regulated.  
14.5 Environmental Hazards: Not regulated.  
14.6 Special precautions for user: Not regulated.

**IMDG**

14.1 UN Number: Not regulated.  
14.2 UN Proper Shipping Name: Not regulated.  
14.3 Transport Hazard Class(es) Not regulated.  
14.4 Packing Group: Not regulated.  
14.5 Environmental Hazards: Not regulated.  
14.6 Special precautions for user: Not regulated.

**IATA**

14.1 UN Number: Not regulated.  
14.2 UN Proper Shipping Name: Not regulated.  
14.3 Transport Hazard Class(es) Not regulated.  
14.4 Packing Group: Not regulated.  
14.5 Environmental Hazards: Not regulated.  
14.6 Special precautions for user: Not regulated.

**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code:** not applicable.

<b>SECTION 15: Regulatory information</b>
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**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:****EU Regulations**

**Regulation (EC) No. 2037/2000 Substances that deplete the ozone layer:** none

**Regulation (EC) No. 850/2004 on persistent organic pollutants:** none

**Regulation (EC) No. 689/2008 Import and export of dangerous chemicals:** none

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended:**  
none

**Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction on marketing and use:**  
none

**Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens and mutagens at work.:** none

**Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breast feeding.:** none

**Directive 96/82/EC (Seveso III): on the control of major accident hazards involving dangerous substances:** none



**EU. Regulation No. 166/2006 PRTR (Pollutant Release and Transfer Registry), Annex II: Pollutants:**  
none

**Directive 98/24/EC on the protection of workers from the risks related to chemical agents at work:**  
none

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

#### **SECTION 16: Other information**

**Revision Information:** Not relevant.

#### **References**

PBT PBT: persistent, bioaccumulative and toxic substance.  
vPvB vPvB: very persistent and very bioaccumulative substance.

**Key literature references and sources for data:** Safety Data Sheet from the supplier.  
ECHA

**Wording of the H-statements in section 2 and 3:** none

**Training information:** No data available.

**Issue Date:** 09.02.2017

**SDS No.:**

**Disclaimer:** This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.