

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

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

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

General information:	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.
Eye/face protection:	Safety goggles. EN 166.
Skin protection	
Hand Protection:	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.
Other:	Safety clothes : long sleeved clothing EN13688
Respiratory Protection:	In case of inadequate ventilation use suitable respirator (EN14387). Seek advice from local supervisor.
Hygiene measures:	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.
Environmental Controls:	Do not empty into drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

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

SECTION 15: Regulatory information

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.