AquaSafe

SunVisto™ Family of Cardboard and Paper Inks

1. Description

AquaSafe is a range of water-based inks intended for printing on paper, board, film and foil packaging and for being **in direct contact with food**.

2. Product Features*

AquaSafe inks is a one-pack water-based inks, specifically designed for printing surfaces that come into direct contact with food.

AquaSafe inks:

- Can be printed flexo and gravure
- Excellent grease/water resistance
- Excellent dry rub
- Excellent resistance to many beverages (e.g. Cola/ Alcoholic/ Orange Juice/ Tea/ Coffee and Milkshakes)
- Excellent printability
- Inks are easy to clean up with excellent resolubility

3. Product Suitability*

Although every effort is taken to ensure that inks are suitable for end use, it is essential that customers satisfy themselves that the printed product meets their specific requirements, especially with regard to product resistance and food contact.

A full range of pantone standard colours is available currently as finished inks.

3.1 Applications

AquaSafe inks are intended for use in the following areas:

- Paper, board, film and foil for food packaging
- Solid and line work

AquaSafe inks should not be used for other end uses without prior discussion with your local Sun Chemical representative.

AquaSafe inks are not suitable for:

- Microwavable packaging
- Ovenable packaging

working for you.





^{*}Specific application performance data, where available can be provided by your Sun Chemical representative.

^{*}Please refer to your local Sun Chemical representative for specific details.

3.2 Substrates

Within the **AquaSafe** range, there are inks suitable for printing on various paper and board qualities.

N.B. Information given here is for indication of potential uses only, detailed information is provided in separate Customer Technical Information Files "CTIF". Due to the wide variety of substrates the suitability of the ink for the chosen substrate is to be tested prior to use under production conditions.

4. Colour Range

AquaSafe inks are available as bespoke finished inks as per product list below

Products used as base-inks for blending to spot colours		
GAQS-20598	AQUASAFE DFC YELLOW INK	
GAQS-30599	AQUASAFE DFC ORANGE INK	
GAQS-40600	AQUASAFE DFC RED INK	
GAQS-40701	AQUASAFE DFC PINK INK	D
GAQS-50601	AQUASAFE DFC CYAN INK	Recom- mended
GAQS-60602	AQUASAFE DFC VIOLET INK	for paper
GAQS-90597	AQUASAFE DFC BLACK INK	straws
GAQS-20603	AQUASAFE DFC YELLOW INK (inorganic)	Silaws
GAQS-40604	AQUASAFE DFC RED INK (inorganic)	
GAQS-10702	AQUASAFE DFC WHITE INK	
GAQS-E0001	AQUASAFE DFC EXTENDER	
Products used as direct finished inks		
GAQS-11594	201594 WHITE	
GAQS-11626	201626 WHITE	
GAQS-11642	201642:AQUASAFE REVEAL WHITE 34%	
GAQS-21593	201593:AQUASAFE FOOD CONTACT YELLOW	
GAQS-81598	201598:AQUASAFE FOOD CONTACT BROWN	
GAQS-81638	201638:AQUASAFE DARK BROWN	
GAQS-41592	201592:AQUASAFE FOOD CONTACT RED	
GAQS-91595	201595:AQUASAFE FOOD CONTACT BLACK	
GAQS-91596	201596:AQUASAFE FC STRONG BLACK	

5. General Handling

5.1 Storage

AquaSafe inks are NOT considered highly flammable under the 1972 Highly Flammable Liquids Regulations.

Temperature of storage: from 10°C to 30°C.

Shelf life: 12 months under above temperature conditions unless specified differently on the individual product packaging label.

AquaSafe inks may still be suitable for application beyond 12 months shelf life but condition and performance should again be checked before use.



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Our Products are intended for sale to professional users. The information herein is general information designed to assist customers whether our products are suitable for their applications. All recommendations are made without guarantee, since the application and conditions of use are beyond our control. We recommend that customers satisfy themselves that each product meets their requirements in all respects before commencing a print run. There is no implied warranty of merchantability or fitness for purpose of the product or products described herein. In no event shall Sun Chemical be liable for damages of any nature arising out of the use or reliance upon this information. Modifications of the product for reasons of improvements might be made without further notice.

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5.2 Waste disposal

Care should be exercised in the disposal of printing ink waste. This should be carried out in accordance with good industrial practice, observing all the appropriate regulations and guidelines.

For more specific handling advice refer to the Material Safety Data Sheet (MSDS).

6. Printing Conditions

6.1 Printing Viscosities

Inks must thoroughly be stirred and homogeneous before reducing to printing viscosity. The optimum printing viscosity depends on press and running conditions. Good results in flexo have been achieved with **AquaSafe** inks at the following viscosities:

- 25-40 sec. (Zahn cup n°2)
- 18-30 sec. (DIN 4 mm Cup at 20°C)

6.2 Reducing solvent

Water or water/solvent blends.

6.3 Cleaning

AquaSafe inks may be removed with water when still wet, and may require proprietary wash-up solutions if allowed to dry on plates, anilox, etc.

Please consult your local Sun Chemical branch for more specific advice.

6.4 Cylinders / Plates

AquaSafe inks are suitable for conventional or ceramic aniloxes and for rubber or photopolymer plates.

7. End-use safety

AquaSafe is a range of water-based inks intended for printing on paper and cardboard packaging.

All Sun Chemical products are formulated to the latest CEPE/EuPIA guidelines. This excludes the use of carcinogenic, mutagenic and toxic for reproduction (CMR 1 and 2) or labelled (T) according to the Dangerous Substances Directive 67/548/EEC, substances classified as very toxic (T+) or toxic (T) and pigments based on compounds of Sb, As, Cd, Cr (VI), Pb, Hg, Se. The use of certain dyes, solvents, plasticisers and miscellaneous materials are also excluded. A copy of the document is available on request.

Water-based products typically contain isothiazolinone biocides, including methyl isothiazolinone, as incan preservatives. Such biocides may cause allergic skin reactions in already sensitised individuals.

All Sun Chemical products are designed with end-use safety built-in. Combination of Sun Chemical products with products from other manufacturers may affect the suitability of the Sun Chemical product for specific end uses and/or applications. It is advised that in such circumstances the user undertakes a detailed risk assessment to ensure that safety is not compromised.



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Acceptable technical performance of **AquaSafe** inks is dependent on:

- Control of product application weight
- Adequate drying on press (to ensure that the print is dry before conversion)
- · Appropriate packaging design and structure
- · Control of any migratable substances within the finished packaging structure
- Suitable adhesive used in accordance with supplier recommendations

The choice and control of substrate, design (including coverage and coat weight), process conditions (e.g. to ensure proper drying) and any materials from other suppliers are printer or converter technical requirements. Sun Chemical's technical team can provide assistance in the form of suggestions or direct

support for our products.

Food Packaging: It is the ultimate responsibility of the food packer to ensure packaged food is safe. With regard to potential migration of substances into the foodstuff from the printed packaging, it is the responsibility of the converter and food packer to ensure that migration does not exceed any permitted regulatory limitations.

To fulfil its responsibility within the supply chain, and following the signing of a legally binding mutual non-disclosure agreement, Sun Chemical will provide details to the customer of any potential migratable components present in its products through the preparation and communication of a 'Statement of Composition'

8. Disclaimers

This list of applications, substrates and processes provided in this document is not exhaustive. Please contact your local Sun Chemical representative for full technical evaluation of your application or process.

The performance of the product and its suitability for the customers' purpose depend on the particular conditions of use and materials being printed. Therefore, any statement provided in this document should not be construed as providing a guarantee of performance in a specific application area. Sun Chemical always recommends that customers carry out a full evaluation of performance and safety-inuse prior to using our products in commercial applications.

This (these) product(s) is (are) suitable for use on the food-contact side of food packaging provided that they are applied under the relevant Good Manufacturing Practices (GMP) and according to the recommendations of this Technical Data Sheet

The printers, converters and the packer/filler have the legal responsibility to insure that the finished article is fit for the intended purpose (s) and that the ink and coating components do not migrate into the food at levels that exceed legal and industry requirements

9. Technical Assistance / Contacts

For further information, please contact your local Sun Chemical team.

SunChemical® a member of the DIC group

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