Safety Data Sheet
according to 1907/2006/EC, Article 31

Printing date 23.12.2009 Revision: 23.12.2009

* 1 Identification of substance

· **Trade name: CORONA GA 5015 series**
· **MSDS no.** 3,114
· **Application of the substance / the preparation** Printing inks
· **Manufacturer/Supplier:**
Stehlin Hostag Ink UK Ltd.
Unit D4, Linkmel Close
Queens Drive Industrial Estate
Nottingham
NG2 1NA
phone: 0115 9860477 fax: 0115 9862681
· **Informing department:**
Product Safety Department:
phone: 0115 9860477
fax: 0115 9862681
E-Mail : sds@stehlin.co.uk
· **Emergency information:** Mo - Fr 24 h

* 2 Hazards identification

· **Hazard designation:** Not a hazardous substance or preparation according to EC-Directives 67/548/EEC or 1999/45/EC.
· **Information pertaining to particular dangers for man and environment** Safety data sheet available for professional user on request.

* 3 Composition/information on ingredients

· **Chemical characterization**
· **Description:**
Preparation from organic and inorganic pigments and/or carbon black (not valid for unpigmented systems like printing varnishes), resins, vegetable oils, mineral oils and additives.
· **Dangerous components:**
CAS: 64741-91-9 mineral oil 10 - 15%
EINECS: 265-093-4 Xn; R 65-66
· **Additional information** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

· **General information** In all cases of doubt, or when symptoms persist, seek medical advice.
· **After inhalation** Remove to fresh air.
· **After skin contact**
Remove contaminated clothing immediately. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
· **After eye contact** Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Remove contact lenses. Obtain medical attention.
· **After swallowing** Do NOT induce vomiting. Obtain medical attention.

5 Fire fighting measures

· **Suitable extinguishing agents** Alcohol resistant foam, CO2, powders, water spray.
· **For safety reasons unsuitable extinguishing agents** Water jet.
· **Special hazards caused by the material, its products of combustion or flue gases:**
Exposure to hazardous decomposition products may cause a health hazard.
Appropriate breathing apparatus may be required.
Fire will produce dense black smoke.
Cool closed containers exposed to fire with water.
· **Additional information** Collect run-off from fire fighting.

* 6 Accidental release measures

· **Person-related safety precautions:** Ventilate the area.
· **Measures for environmental protection:**
If the product contaminates rivers and lakes or sewages inform respective authorities.
Do not allow to enter drains. If the product contaminates rivers and lakes or sewers inform respective authorities.
· **Measures for cleaning/collecting:**
Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local regulations. Clean preferably with a detergent. Avoid use of solvents.

7 Handling and storage

· **Handling**
· **Information for safe handling:**
Avoid inhalation of vapour. Smoking, eating and drinking should be prohibited in application area. For personal protection see Section 8. Comply with health and safety at work laws. Avoid concentrations higher than the occupational exposure limits (see Section 8), if applicable.
· **Storage**
· **Requirements to be met by storerooms and containers:**
Keep container tightly closed.No smoking.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.

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· **Further information about storage conditions:**
Always keep in containers of the same material as the original one. Store in a dry, well ventilated place. Keep away from heat and direct sunlight. Store in accordance with the particular national regulations concerning water pollution.

8 Exposure controls and personal protection

· **Additional information about design of technical systems:**
If relevant apply technical measures to comply with the occupational exposure limits. This can be achieved by a good general extraction and - if practically feasible - by the use of a local exhaust ventilation.
· **Personal protective equipment**
· **Breathing equipment:** Not necessary if room is well ventillated.
· **Protection of hands:**
For prolonged or repeated contact use gloves.
Barrier creams may help to protect the exposed areas of the skin, they should however not be applied once exposure has occurred.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
· **Material of gloves**
Applicable for example are gloves of KCL GmbH, D 36124 Eichenzell, e-mail: vertrieb@kcl.de with following specification (Laboratory test according EN 374)

Recommende protective glove:

Article / Name /Material / Thickness Material / Breakthrough Time Remarks
Nr. 730/ Camatril Velours / Nitril / 0,4 mm Level 6 > 480 min. by full contact
Nr. 743/ Dermatril / Nitril / 0,2 mm Level 2 > 30 min. by splash contact
This recommendation is only for the product delivered by us and its intended purpose.
· **Penetration time of glove material** The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **Eye protection:** Use safety eyewear designed to protect against splash of liquids.
· **Body protection:**
All parts of the skin should be washed after contact.
Working clothes must not consist of textiles which show a dangerous melting behaviour in case of fire.

* 9 Physical and chemical properties:

· **General Information**

Form:	pasty
Colour:	according to the tradename of the product
Smell:	characteristic

· **Change in condition**

Boiling point/Boiling range:	101°C
	> 200 °C
· **Flash point:**	> 100°C
· **Ignition temperature:**	200°C
· **Critical values for explosion:**	
Lower: approx.	0.6 Vol %
Upper: approx.	7.0 Vol %
· **Vapour pressure at 20°C:**	0.1 hPa
	at 20°C < 0,1 hPa
· **Density at 20°C**	1.04 g/cm³
· **Solubility in / Miscibility with**	
Water:	partly or not miscible
Organic solvents:	< 0.06 %

10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:** Stable under recommended storage and handling conditions (see section 7).
· **Materials to be avoided:** Keep well away from oxidising agents and strongly alkaline or strongly acid materials in order to avoid exothermic reactions.
· **Dangerous products of composition:**
Exposition to high temperatures may produce hazardous decomposition poducts such as: carbon dioxide, carbon monoxide and smoke.

11 Toxicological information

The liquid splashed in the eyes may cause irritation and reversible damage.
The Preparation is classified according to the conventional method (calculation method of the EC-directive 1999/45/EC). Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in skin dryness. The product may be absorbed through the skin.

12 Ecological information:

The Product should not be allowed to enter drains of water courses or soil.

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13 Disposal considerations

· **Product:**
· **Recommendation** Do not allow to enter drains.
· **European waste catalogue** 08 03 13: waste ink other than those mentioned in 08 03 12
· **Uncleaned packagings:**
· **Recommendation:** Not orderly emptied cans and ink remnants are special waste.

14 Transport information

Not classified according to transport regulations for dangerous goods (like ADR/RID, IMDG and ICAO/IATA).

· **Maritime transport IMDG/GGVSea:**
· **Marine pollutant:** No

* 15 Regulatory information

· **Designation according to EC guidelines:**
Observe the normal safety regulations when handling chemicals
Not a hazardous substance or preparation according to EC-directives 67/548/EEC or 1999/45/EC.
· **Special designation of certain preparations:** Safety data sheet available for professional user on request.
· **National regulations**

· **Technical instructions (air):**
· **VOC-Content (EU):** 0.00 %
· **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
· **Mal-Code** 00-1

16 Other information:

The information on this Safety Data Sheet is based on the present state of our knowledge and on current EU and national laws. The user's working conditions are beyond our knowledge and control. It is always the responsibility of the user to take all necessary steps in order to fulfil the demands laid down in the local rules and legislation. The information in this Safety Data Sheet is meant as a description of the safety requirements of our product: it is not to be considered as a guarantee of the product's properties.

· **Relevant R-phrases**
65 Harmful: may cause lung damage if swallowed.
66 Repeated exposure may cause skin dryness or cracking.

CORONA®-GA 5015 low-odour*

The ideal special process series for organoleptically neutral print products

The following requirements apply in relation to food and consumables packaging:

- There must be no organoleptic changes (changes of odour or taste) to the package contents
- Migration must remain within the set limits
- There must be no change in the colour of the package contents

Food and consumables packages must be printed using sheet-fed offset inks that do not have any adverse effect on either the odour or the taste of the package contents. The development of a new vehicle and the use of selected raw materials and production methods has led to the creation of low-odour* sheet-fed offset inks that set new standards.

Migration and invisible set-off must be prevented by arranging for suitable processing conditions and selecting a substrate or primary packaging with adequate barrier properties.

MGA-CORONA® sheet-fed offset inks, MGA-ACRYLAC® water-based coatings and MGA® fount concentrates together constitute a low-migration system ideal for producing food packaging made of paper and cardboard.

More information on the subject of food and consumables (semi-luxury foods and tobacco) packaging can be found in the information sheet entitled „Druckfarben für Lebensmittelverpackungen" (Printing inks for food packaging) published by the German Printing Ink Manufacturers' Association.

Inks from the CORONA®-GA 5015 series cover a wide range of applications in the manufacture of high-quality packaging.

CORONA®-GA 5015		Fastness properties per DIN 16 524/25				
		Light WS	Alcohol	Solvent mixture	Alcali	Drying
Yellow	**41 GA 5015**	5	+	+	+	by setting only
Magenta	**42 GA 5015**	5	+	+	-	by setting only
Cyan	**43 GA 5015**	8	+	+	+	by setting only
Black	**49 GA 5015**	8	+	+	+	by setting only

Naturally, in addition to the process colours, we can also formulate any shade you would like as well as all corporate and packaging colours on the basis of CORONA®-GA.

* The term „low-odour" refers to prints that have been made with these inks

Special properties

- CORONA ® -GA inks can be used in a similar way to conventional inks and are suitable for use in all sheet-fed offset presses and on all stocks.
- These inks dry solely through setting and not by oxidation. Due to their drying mechanism, prints made with CORONA® -GA inks do not offer adequate rub resistance. Inline coating with organoleptically neutral, water-based coating is obligatory.
- Organoleptic assessment of printed products produces excellent results („Robinson tests“ EN 1230 T1 and T2).
- The fact that the inks do not dry by oxidation means no substances are produced that change the odour or taste of the package contents. One example of such substances are short-chain aldehydes. Printed products made using CORONA® -GA inks therefore also have a low hexanal content. Particularly high requirements in this regard are fulfilled by our CORONA-HGA 5028 sheet-fed offset series.
- If the substrate or primary packaging used to make the packaging does not act as an adequate barrier, there is a possibility of substances migrating from the packaging to its contents. In this case, we recommend you use our MGA-CORONA ® 5045 sheet-fed offset series (low-migration, organoleptically neutral).

Application instructions

Fount solution delivery and composition

It is best to keep the dampener setting low, particularly when ink coverage is low. The isopropanol concentration in the fount solution must not exceed 10 %, with a pH of 5.0 – 5.4.

Roller treatment / Washup

Due to the possible negative effect on printed packages with respect to odour and taste, the rollers must not be sprayed with Anti-Skin. After washing the rollers, leave them to dry well.

Water-based coating delivery

We recommend that you set the coating application rate to the upper limit, in order to obtain an uninterrupted film over the inks. In this way, you can avoid the following problems:

- Inadequate rub resistance
- Setoff in the stack

We recommend that you use, for example, our water-based coating ACRYLAC ® High Gloss 57 0010/40 .

Format setting

The area coated should end approx. 5 mm from the edge of the paper on all sides.

Printing auxiliaries

To reduce the tack of the ink, use our low-odour Reducer 5 4 0 8 6 0 5 2

Under no circumstances should you add driers of any kind in an attempt to prevent the build-up of organoleptically active substances.

Ink mixtures

CORONA®-GA inks may only be mixed with inks of the same type.

Classification

Safety Data Sheet available on request.

How supplied

Printing ink
2.5-kg vacuum-sealed cans

Water-based coating
25-kg plastic canister
600-kg IBC (intermediate bulk container)