

## Product description: KORTHO INK K16 BLACK

### 1. IDENTIFICATION OF THE SUBSTANCE OR THE MIXTURE AND OF THE COMPANY/BUSINESS

#### 1.1 Product identifications

Product name: Kortho Ink 16 black, 946 cm3 / Kortho Ink 16 black, 4730 cm3  
Internal code number: 054037 / 083201  
Product description: Printing ink

#### 1.2 Relevant identified use of the substance or the mixture and use that is advised against

Identified use: Printing ink, printing of labels.

#### 1.3 Details relating to the provider of the safety data sheet

Company: B.V. Korthofah  
Lageweg 39  
2222AG Katwijk ZH  
The Netherlands  
Telephone: 0031 71 40 60 480  
E-mail address: export@kortho.nl

#### 1.4 Telephone number in case of emergencies

Emergency telephone number: 111  
Organisation/company: National Poisons Information Service (NHS Direct) – <http://www.npis.org>  
(England, Wales and Northern Ireland - NHS 111 and Scotland - NHS 24)

### 2. HAZARDS IDENTIFICATION

#### # 2.1 Classification of the substance or the mixture

##### Classification in accordance with directive (EC) No. 1272/2008

Flammable liquids (Category 2), H225  
Skin corrosion/irritation (Category 1C), H314  
Specific target organ toxicity in case of a single exposure, can cause drowsiness or dizziness (Category 3), H336  
Aquatic acute (Category 1), H400  
Aquatic chronic (Category 1), H410

For the full text on H statements as set out in this section, see section 16.

#### # 2.2 Labelling elements

Labelling in accordance with directive (EC) No. 1272/2008

Pictogram



Signal word

Warning

Hazard statement code (H code)

H225 Highly flammable liquid and vapour.  
H314 Causes severe skin burns and eye damage.  
H336 May cause drowsiness or dizziness.  
H410 Toxic to aquatic life with long lasting effects.

Hazard statement code (H code)

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P264 Wash all exposed external body areas thoroughly after handling.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P281 Use personal protective equipment as required.  
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position 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.

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P337 + P313

If eye irritation persists: Get medical advice/attention.

P403 + P233

Store in a well-ventilated place. Keep container tightly closed.

Supplementary

hazard statements

none

**2.3 Other hazards**

Contains Nitrocellulose. Printing using inks, which contain Nitrocellulose, is highly flammable.

**3. COMPOSITION/INFORMATION ON INGREDIENTS****# 3.2 Mixture****Hazardous components according to Regulation (EC) No. 1272/2008**

Chemical name	Index. No.	EC No.	Cas No.	Conc. %	Category
1-methoxy-2-propanol	603-064-00-3	203-539-1	107-98-2	50 <= 60	Flammable liquids 3; STOT SE 3; H226, H336
Ethyl alcohol	603-002-00-5	200-578-6	64-17-5	10 <= 20	Flammable liquids 2; H225
N,N-Bis-(2-hydroxyethyl)C12-C18-alkylamine	01-2119957489-17-0002	276-014-8	71786-60-2	5 <= 10	Acute toxicity 4; Skin corrosion 1C; Aquatic acute 1; Aquatic chronic. H302, H314, H400, H410
N-methyl-2-pyrrolidone	606-021-00-7	212-828-1	872-50-4	1 <= 5	Skin irritation. 2; Eye irritation. 2; H315, H319

For the full text on the H statements as set out in this section, see section 16.

**4. FIRST AID MEASURES****4.1 Description of first aid measures****General advice**

Seek medical advice. Show this safety data sheet to the duty doctor.

**In case of inhalation**

Take the victim into the fresh air in cases of inhalation. If breathing has stopped, perform artificial respiration. Seek medical advice.

**In case of skin contact**

Wash off with soap and plenty of water. Seek medical advice.

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and seek medical advice.

**In case of ingestion**

DO NOT induce vomiting. Never attempt to get an unconscious person to drink (or eat). Rinse mouth with water. Seek medical advice.

**4.2 Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described on the label (see section 2.2) and/or section 1.1.

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

No data available.

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## **5. FIRE FIGHTING MEASURES**

### **5.1 Fire extinguishers**

#### **Suitable fire extinguishers**

Use water spray, alcohol-resistant foam, dry powder or carbon dioxide.

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

Carbon oxides.

### **5.3 Advice for fire-fighters**

Where necessary, wear self-contained breathing apparatus when fire fighting.

### **5.4 More detailed information**

Use water spray to cool down unopened containers.

## **6. MEASURES IN THE EVENT OF THE ACCIDENTAL RELEASE OF THE SUBSTANCE OR PREPARATION**

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

Use personal protective equipment. Avoid breathing in vapours/mist/gas. Ensure there is adequate ventilation. Remove all sources of ignition. Beware of vapours, which accumulate into explosive concentrations. Vapours can accumulate in low-level rooms. For personal protective equipment, see section 8.

### **6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not allow product to get into the drains.

### **6.3 Containment and cleaning methods and materials**

Contain spills and collect using electrically protected vacuum cleaner or by wet-mopping and transferring into a container for disposal in accordance with local regulations (see section 13).

### **6.4 Reference to other sections**

For waste disposal, see section 13.

## **7. HANDLING AND STORAGE**

### **7.1 Precautions for safe handling of the substance or mixture**

Avoid contact with eyes or skin. Avoid breathing in vapour or mist.

Keep away from sources of ignition – No smoking. Take measures to prevent the creation of electrostatic charges.

For precautionary measures, see section 2.2.

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

Store in a cool place. Store in tightly closed container in a dry and well ventilated place. Carefully close opened containers and store upright to prevent leaks.

Keep away from oxidising agents and strong bases.

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

Some of the applications set out in section 1.2 - no other applications have been agreed.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### # 8.1 Control parameters

#### Components with limit values for the workplace

Component	CAS No.	Value	Control parameters	Base
Ethyl alcohol	64-17-5	TWA	500 ppm 1,000 mg/m3	Working conditions amendment - Statutory limit values
	Comments	Administrative limit value		
		TWA (time-weighted average) - 8 hours	260 mg/m3	Working conditions amendment - Statutory limit values
		Carcinogenic substances		
		TWA-15 min	1,900 mg/m3	Working conditions amendment - Statutory limit values
		Carcinogenic substances		

Component	CAS No.	Value	Control parameters	Base
N-methyl-2-pyrrolidone	872-50-4	TWA	10 ppm 40 mg/m3	Europe. DIRECTIVE 2009/161/EU OF THE COMMISSION on the establishment of a third list of indicative limit values for occupational exposure in application of Directive 98/24/EC of the Council and on the amendment of Directive 2000/39/EC of the Commission.
	Comments	Identifies a potentially significant absorption through the skin. Indicative		
		SET	20 ppm 80 mg/m3	Europe. DIRECTIVE 2009/161/EU OF THE COMMISSION on the establishment of a third list of indicative limit values for occupational exposure in application of Directive 98/24/EC of the Council and on the amendment of Directive 2000/39/EC of the Commission.
		Identifies a potentially significant absorption through the skin. Indicative		
		TWA (time-weighted average) - 8 hours	40 mg/m3	Working conditions amendment - Statutory limit values
		Skin absorption		
		TWA-15 min	80 mg/m3	Working conditions amendment - Statutory limit values
		Skin absorption		

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Component	CAS no.	Route of exposure	Personnel	Value	Exposure time/Effect
N,N-Bis-(2-hydroxyethyl)C12-C18-alkylamine  <b>DNEL TEST</b>	71786-60-2	Inhalation	Workers	2.112 mg/m <sup>3</sup>	Long-term systemic effects
		Dermal	Workers	0.3 mg/kg bw/day	Long-term systemic effects
		Inhalation	General population	0.745 mg/m <sup>3</sup>	Long-term systemic effects
		Dermal	General population	0.214 mg/kg bw/day	Long-term systemic effects
		Oral	General population	0.214 mg/kg bw/day	Long-term systemic effects
N,N-Bis-(2-hydroxyethyl)C12-C18-alkylamine  <b>PNEC TEST</b>	71786-60-2	<b>Environmental compartment</b>	<b>Value</b>		
		Fresh water	0.183 µg/l		
		Salt water	0.183 µg/l		
		Water (intermittent release)	1 µg/l		
		Sewage treatment plant	2200 µg/l		
		Fresh water sediment	1.692 µg/l dry weight		
		Soil	5 mg/kg dry weight		
		Secondary poisoning	2 mg/kg food		

## 8.2 Measures to control exposure

### Suitable technical measures

Use in accordance with effective industrial hygiene and safety. Wash hands before each work break and at the end of the working day.

### Personal protective equipment

#### Protection of the eyes / the face

Face protection and safety goggles. Use face and/or eye protection tested and approved by official organisations such as NIOSH (US) or EN166 (EU).

#### Protection of the skin

Handle with gloves. Properly check gloves before use. Carefully remove gloves without touching the outside with your exposed hand. Immediately throw away used gloves in accordance with the valid laboratory regulations. Wash and dry your hands. The protective gloves must comply with the specifications of EU Directive 89/686/EEC and the standard EN 374, which has been derived from this.

Glove material: Nitrile\*  
Thickness of material: 0.4 ± 0.05mm  
Penetration time: 120 minutes  
(\* Tested glove Nitrile I – KCL 0730)

#### Body protection

Impenetrable clothing, flame-retardant, anti-static protective clothing. The type of protective features depends on the concentration and quantity of hazardous substances in the workplace in question.

Material: Kleenguard  
Type: T7 LAB (jacket) – T6 5ultra (suit)  
Characteristics: EN1149-1 antistatic, non-heat retaining, protective clothing to prevent incendiary discharge. Clothing with a limited service life, which provides protection against chemicals and protects certain parts of the body:

- immediately throw clothing away after use;
- immediately throw damaged clothing away;
- strictly observe the operating instructions, which is supplied with the clothing.

Should unexpected contamination of the clothing worn under the protective clothing occur, then it should immediately be taken off and thrown away.

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Whenever there are breathing risks, where necessary use a full-face respirator combined with (US) and/or type ABEK (EN 14387) breathing pattern as a support when undertaking a factory inspection. If the face mask is the only means of protection, use a full-face respirator (oxygen mask). Use respirators tested and approved by official government bodies such as NIOSH (US) or CEN (EU).

**Preventing exposure of the environment**

Prevent further leakage or spillage if safe to do so. Do not allow product to get into the drains.

**9. PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information about physical and chemical basic properties**

a)	Appearance	Form: liquid Colour: black
b)	Odour	Alcoholic
c)	Odour threshold value	N/A
d)	pH	No data available
e)	Melting/freezing point	No data available
f)	Initial boiling point and boiling range	No data available
g)	Flashpoint	19 °C
h)	Evaporation rate	No data available
i)	Flammability (solid, gas)	No data available
j)	High/low flammability or explosion limit values	No data available
k)	Vapour pressure	No data available
l)	Vapour density	No data available
m)	Relative density	approx. 0.9 kg/dm <sup>3</sup>
n)	Solubility in water	Immiscible
o)	Partition coefficient n-octanol / water	No data available
p)	Auto-ignition temperature	No data available
q)	Decomposition temperature	No data available
r)	Viscosity	15-30s DinCup4
s)	Explosion characteristics	No data available
t)	Oxidising characteristics	No data available

**9.2 Other safety information**

No data available.

**10. STABILITY AND REACTIVITY****10.1 Reactivity**

No data available.

**10.2 Chemical stability**

Stable under the recommended storage conditions.

**10.3 Potential hazardous reactions**

No data available.

**10.4 Conditions to be avoided**

Heat, flames and sparks.

**10.5 Incompatible materials**

Oxidizing agents, strong bases.

**10.6 Hazardous decomposition products**

Other decomposition products - no data available.  
In case of fire: see section 5.

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**11. TOXICOLOGICAL INFORMATION**

**11.1 Information about toxicological effects**

**Acute toxicity**

Regarding the product itself, no information is available.

**Inhalation**

Exposure to compound vapours of solvents at concentrations higher than the specified maximum exposure limit may damage health, for example: irritation of the mucous membranes and respiratory system, as well as a possible adverse effect on the kidneys, liver and central nervous system. Symptoms include headache, dizziness, fatigue, myasthenia, drowsiness and in extreme cases unconsciousness.

**Contact with the skin**

Repeated or prolonged exposure to the product may result in the removal of fats from the skin, which may result in non-allergic contact dermatitis and may allow the substance to be absorbed through the skin.

**Eye contact**

Splashes in the eyes may cause irritation and damage.

**Swallowing**

No data available.

**Mutagenicity in reproductive cells**

No data available.

**Carcinogenicity**

IARC:

No component in this product, insofar as it is present in a concentration of more than or equal to 0.1% has been identified as a probable, possible or confirmed carcinogen by IARC.

**Toxicity for reproduction**

No data available.

**Specific target organ toxicity - single exposure**

No data available.

**Specific target organ toxicity - repeated exposure**

No data available.

**12. ECOLOGICAL INFORMATION**

**General information:**

Regarding the product itself, no information is available. The product must not enter drains or surface water.

**12.1 Toxicity**

No data available.

**12.2 Persistence and degradability**

No data available.

**12.3 Bioaccumulation**

No data available.

**12.4 Mobility in soil**

No data available.

**12.5 Results of PBT- and vPvB assessment**

PBT/vPvB assessment not available because a chemical safety assessment is not required/has not been performed.

**12.6 Other harmful effects**

In normal use, there are no known or anticipated environmental problems.

**Product description: KORTHO INK K16 BLACK****13. DISPOSAL CONSIDERATIONS****13.1 Waste treatment methods****Product**

Combustion in a chemical incineration plant fitted with an afterburner and a scrubber, but exercise extra caution when igniting it as this substance is highly flammable. Provide the remains and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Remove as unused product.

**14. INFORMATION RELATING TO TRANSPORTATION****General information**

Transport the product in accordance with the provisions of the ADR for road transport, RID for rail transport, IMDG for sea transport and ICAO/IATA for air transport.

**14.1 UN number**

ADR/RID: 1210

IMDG: 1210

IATA: 1210

**14.2 Proper shipping name from the UN Model Regulations**

ADR/RID: PRINTING INK, FLAMMABLE

IMDG: PRINTING INK, FLAMMABLE

IATA: PRINTING INK, FLAMMABLE

**14.3 Transport hazard class(es)**

ADR/RID: 3

IMDG: 3.2

IATA: 3

**14.4 Packaging group**

ADR/RID: II

IMDG: II

IATA: II

**# 14.5 Environmental hazards**

ADR/RID: yes

IMDG Marine pollutant: yes

IATA: yes

**14.6 Special precautions for the user**

No data available.

**15. REGULATIONS****15.1 Specific health, safety and environmental regulations and legislation governing the substance or the mixture**

No data available.

**15.2 Chemical safety assessment**

No chemical safety assessment has been carried out for this product.

**16. OTHER INFORMATION****# Full text of H statements to which reference is made in sections 2 and 3**

- H225 Highly flammable liquid and vapour.
- H226 Flammable liquid and vapour.
- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.
- H400 Very toxic to aquatic life
- H410 Very toxic to aquatic life with long lasting effects.
- H413 May cause long lasting harmful effects to aquatic life.



**Product description: KORTHO INK K16 BLACK****List of abbreviations and acronyms**

ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route: European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS	Chemical Abstracts Service (division of the American Chemical Society).
EINECS	European Inventory of Existing Commercial Chemical Substances.
GHS	Globally Harmonized System of Classification and Labelling of Chemicals.
IATA	International Air Transport Association.
IMDG	International Maritime Dangerous Goods code: International code for the transportation of hazardous substances at sea.
NVIC	Nationaal Vergiftigingen Informatie Centrum [National Poisons Information Centre].
PBT	Persistent, bioaccumulating and toxic.
REACH	Registration, Evaluation and Authorisation of Chemicals.
RID	Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations for the transportation of hazardous substances by train).
STOT SE	Specific target organ toxicity – single exposure.
vPvB	Very Persistent and very Bioaccumulative.

**# Classification procedures**

Classification in accordance with Regulation (EC) No. 1272/2008	Classification procedure
Flammable Liquid 2. H225	Test data
Skin corrosion 1C. H314	Calculation method
Stot. Se. 3. H336	Calculation method
Aquatic acute 1. H400	Calculation method
Aquatic chronic 1. H410	Calculation method

**Revision**

This SDS replaced the previous release with version number 07/11.03.2016. Modified sections are marked with #.

**More detailed information**

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