

SAFETY DATA SHEET

This safety data sheet complies with the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Issue Date 14-Feb-2018

Revision Date 14-Feb-2018

Version 1

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Name Sign-Tronic P-Ink Black

Contains Oxybis(methyl-2,1-ethanediyl diacrylate, Acrylic Acid Ester, Isobornyl acrylate monomer, Black Pigment, 2-phenoxyethyl acrylate, Ethoxylated Ester, Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)-phosphine oxide

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

Recommended Use Digital Printing

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Supplier

SIGNTRONIC 2 WESSEX STREET PAARDEN EILAND CAPE TOWN 7420

For further information, please contact

Contact Point Mr A. Wolman

1.4. Emergency telephone number

Emergency Telephone During normal opening times: +27 82 827 8888

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Skin corrosion/irritation	Category 1 - (H314)
Serious eye damage/eye irritation	Category 1 - (H318)
Skin sensitization	Category 1 - (H317)
Chronic aquatic toxicity	Category 2 - (H411)

Classification according to Directive 67/548/EEC or 1999/45/EC

Full text of R-phrases: see section 16

2.2. Label elements

Product identifier

Contains Oxybis(methyl-2,1-ethanediyl diacrylate, Acrylic Acid Ester, Isobornyl acrylate monomer, Black Pigment, 2-phenoxyethyl acrylate, Ethoxylated Ester, Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)-phosphine oxide



Signal word

Danger

Hazard statements

H314 - Causes severe skin burns and eye damage

H317 - May cause an allergic skin reaction

H411 - Toxic to aquatic life with long lasting effects

Contains 1,6-Hexanediol diacrylate, Propoxylated neopentyl glycol EUH208 - May produce an allergic reaction

Precautionary Statements - EU (§28, 1272/2008)

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P260 - Do not breathe dust/fume/gas/mist/vapors/spray

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor

2.3. Other hazards

No information available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Substances**

Chemical Name	EC No	CAS No	Weight-%	Classification according to Directive 67/548/EEC or 1999/45/EC	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Registration Number
Oxybis(methyl-2,1-ethanediyl diacrylate)	260-754-3	57472-68-1	<55	Xi;R41,38 R43	Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Skin Sens. 1 (H317)	No data available
Acrylic Acid Ester	Listed	-	<20	Xn;R22 - C;R34 - R43 - R52/53	Acute Tox. 4 (H302) Skin Corr. 1A (H314) Skin Sens. 1 (H317) Aquatic Chronic 3 (H412)	No data available
Ethoxylated Ester	-	28961-43-5	<20	Xi; R36 R43	Eye Irrit. 2, H319 Skin Sens. 1 (H317)	No data available
2-phenoxyethyl acrylate	256-360-6	48145-04-6	<10	-	Eye Dam. 1 (H318) Skin Sens. 1 (H317) Aquatic Chronic 2 (H411)	No data available
Isobornyl acrylate monomer	227-561-6	5888-33-5	<10	Xi; R36/37/38. N; R51/53.	STOT SE 3 (H335) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	No data available
2-Benzyl-2-dimethylamino-1-(4-morpholinphenyl)butan-1-one	404-360-3	119313-12-1	<5	N; R50-53	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	No data available
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	278-355-8	75980-60-8	<5	Repr.Cat.3; R62 R43 N;51/53	Skin Sens. 1 (H317) Repr. 2 (H361) Aquatic Chronic 2 (H411)	No data available
Black Pigment	Listed	-	<5	-	No data available	No data available

phenylbis(2,4,6-trimethylbenzoyl)-phosphine oxide	423-340-5	162881-26-7	<10	R43 R53	Skin Sens. 1 (H317) Aquatic Chronic 4 (H413)	No data available
1,6-Hexanediol diacrylate	235-921-9	13048-33-4	<10	Xi; R36/38 R43	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317) Aquatic Chronic 3 (H412)	No data available
Propoxylated neopentyl glycol	-	84170-74-1	<10	Xi; R36/37/38	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317) STOT SE 3 (H335)	No data available

Full text of R-phrases: see section 16

Full text of H- and EUH-phrases: see section 16

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation	Remove to fresh air.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Ingestion	Clean mouth with water and drink afterwards plenty of water.

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

Symptoms No information available.

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

Note to physicians Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

No information available

5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating and toxic gases and vapors

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment as required.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions

Ensure adequate ventilation, especially in confined areas.

For emergency responders

Use personal protection recommended in Section 8.

6.2. Environmental precautions

Collect spillage.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections

See section 8 for more information. See section 13 for more information.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling

Ensure adequate ventilation, especially in confined areas.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep container tightly closed in a dry and well-ventilated place.

Incompatible materials

None known based on information supplied.

7.3. Specific end use(s)

Risk Management Methods (RMM)

The information required is contained in this Material Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Chemical Name	European Union	United Kingdom	France	Spain	Germany
Black Pigment	-	TWA: 3.5 mg/m ³ STEL: 7 mg/m ³	TWA: 3.5 mg/m ³	TWA: 3.5 mg/m ³	-
Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
Black Pigment	-	TWA: 3.5 mg/m ³	-	TWA: 3.5 mg/m ³ STEL: 7 mg/m ³	TWA: 3.5 mg/m ³
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
Black Pigment	-	-	TWA: 4.0 mg/m ³	TWA: 3.5 mg/m ³ STEL: 3.5 mg/m ³	TWA: 3.5 mg/m ³ STEL: 7 mg/m ³

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering Controls Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection Tight sealing safety goggles.
Skin and body protection Suitable protective clothing.

Environmental exposure controls No information available.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	liquid	Odor	Characteristic
Appearance	Liquid	Odor threshold	No information available
Color	black		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH		No information available
Melting point / freezing point		No information available
Boiling point / boiling range	> 200 °C / 392 °F	No information available
Flash point	> 100 °C / 212 °F	No information available
Evaporation rate		No information available
Flammability (solid, gas)		No information available
Flammability Limit in Air		
Upper flammability limit:		No information available
Lower flammability limit:		No information available
Vapor pressure		No information available
Vapor density		No information available
Relative density		No information available
Water solubility	Immiscible in water	No information available
Solubility(ies)		No information available
Partition coefficient		No information available
Autoignition temperature		No information available
Decomposition temperature		No information available
Kinematic viscosity		No information available
Dynamic viscosity		No information available
Explosive properties	Not an explosive	No information available
Oxidizing properties	Not applicable	No information available

9.2. Other information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	No information available

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

Stable under normal conditions.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

10.3. Possibility of hazardous reactions**Possibility of Hazardous Reactions**

None under normal processing.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

None under normal use conditions.

Section 11: TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects****Acute toxicity****Product Information**

Product does not present an acute toxicity hazard based on known or supplied information.

Inhalation No data available.**Eye contact** No data available.**Skin contact** No data available.**Ingestion** No data available.**The following values are calculated based on chapter 3.1 of the GHS document****ATEmix (oral)** 2,044.00**ATEmix (dermal)** 3,088.00**Unknown acute toxicity**

90.3855 % of the mixture consists of ingredient(s) of unknown toxicity.

14.059 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.

20.059 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.

88.6355 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).

90.3855 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).

85.7355 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Oxybis(methyl-2,1-ethanediyl diacrylate	= 4600 mg/kg (Rat)	> 2 g/kg (Rabbit)	
Ethoxylated Ester		> 13 g/kg (Rabbit)	
2-phenoxyethyl acrylate	= 4660 µL/kg (Rat)	= 2540 µL/kg (Rabbit)	
Isobornyl acrylate monomer	= 4890 mg/kg (Rat)	> 5 g/kg (Rabbit)	
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	>5000 mg/kg	>2000 mg/kg	
Black Pigment	> 15400 mg/kg (Rat)	> 3 g/kg (Rabbit)	
1,6-Hexanediol diacrylate	= 5 g/kg (Rat)	= 3600 µL/kg (Rabbit)	

Skin corrosion/irritation No information available.**Serious eye damage/eye irritation** No information available.

Sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Unknown aquatic toxicity 59.6216 % of the mixture consists of component(s) of unknown hazards to the aquatic environment
59.6216 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Isobornyl acrylate monomer	72 hours: 4.2 mg/l, Algae	-	-
Black Pigment	10000 mg/l / 3 d scenedesmus subspicatus	1000 mg/l / 96 h Brachydanio rerio)	5600: 24 h Daphnia magna mg/L EC50

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil

Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Other adverse effects

No information available

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from residues/unused products

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Improper disposal or reuse of this container may be dangerous and illegal.

Section 14: TRANSPORT INFORMATION

IMDG

14.1 UN/ID no	UN3082
14.2 Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.
14.3 Hazard Class	9
14.4 Packing Group	III
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Isobornyl acrylate monomer, diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide), 9, III, Marine Pollutant
14.5 Marine pollutant	Not applicable
14.6 Special Provisions	274, 335
EmS-No	F-A, S-F
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available

RID

14.1 UN/ID no	UN3082
14.2 Proper Shipping Name	Not regulated
14.3 Hazard Class	9
14.4 Packing Group	III
Description	&UN3082, & (<TNR00012>), 9, III
14.5 Environmental hazard	Not applicable
14.6 Special Provisions	None
Classification code	M6

ADR

14.1 UN/ID no	UN3082
14.2 Proper Shipping Name	Not regulated
14.3 Hazard Class	9
Labels	9
14.4 Packing Group	III
Description	&UN3082, & (<TNA00012>), 9, III, (E)
14.5 Environmental hazard	Not applicable
14.6 Special Provisions	274, 335, 601, 375
Classification code	M6
Tunnel restriction code	(E)

IATA

14.1 UN/ID no	UN3082
14.2 Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.
14.3 Hazard Class	9
14.4 Packing Group	III
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Isobornyl acrylate monomer, diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide), 9, III
14.5 Environmental hazard	Not applicable
14.6 Special Provisions	A97, A158, A197
ERG Code	9L

Section 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**France****Occupational Illnesses (R-463-3, France)**

Chemical Name	French RG number	Title
Black Pigment	RG 16, RG 16bis	-

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Authorizations and/or restrictions on use:

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009 Not applicable

International Inventories**15.2. Chemical safety assessment**

No information available

Section 16: OTHER INFORMATION**Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of R-phrases referred to under sections 2 and 3**

No information available

Full text of H-Statements referred to under section 3

H400 - Very toxic to aquatic life
 H410 - Very toxic to aquatic life with long lasting effects
 H315 - Causes skin irritation
 H319 - Causes serious eye irritation
 H317 - May cause an allergic skin reaction
 H412 - Harmful to aquatic life with long lasting effects
 H413 - May cause long lasting harmful effects to aquatic life
 H318 - Causes serious eye damage
 H411 - Toxic to aquatic life with long lasting effects
 H335 - May cause respiratory irritation
 H302 - Harmful if swallowed
 H314 - Causes severe skin burns and eye damage
 H361 - Suspected of damaging fertility or the unborn child if inhaled

Legend

SVHC: Substances of Very High Concern for Authorization:

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Issue Date 14-Feb-2018

Revision Date 14-Feb-2018

Revision Note Not applicable.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

End of Safety Data Sheet