SAFETY DATA SHEET

Print Date	Revision Date	Revision Number
Dec-08-2015	Dec-08-2015	1

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

1.1 Product identifier

Product code GEN1800
Product name Color Matches
Product category 1800 PowerPrint® Plus UV Screen Ink

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

Recommended use Printing operations

1.3 Details of the supplier of the safety data sheet

UNITED STATES
Nazdar Company
8501 Hedge Lane Terrace
Shawnee, KS 66227
Tel: 1-913-422-1888
Tel: 1-800-677-4657
Fax: 1-913-422-2294
www.nazdar.com

UNITED KINGDOM
Nazdar Limited
Barton Road
Heaton Mersey
Stockport, England SK4 3EG
Tel: +44 161 442 2111

For further information, please contact

Contact person Regulatory Compliance: Tel: 1-913-422-1888 (ext 2305)
E-mail address regcomp@nazdar.com

1.4 Emergency telephone number

USA: Chemtrec: 1-800-424-9300
Outside USA: Chemtrec: 1-703-527-3887
24 Hour Emergency Phone Number

Section 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

According to Regulation (EC) No 1272/2008

Skin Corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)
Skin sensitization	Category 1A - (H317)
Specific target organ toxicity (repeated exposure)	Category 1 - (H372)
Chronic aquatic toxicity	Category 2 - (H411)

2.2 Label elements

Signal Word
Danger

Hazard Statements
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H372 - Causes damage to organs through prolonged or repeated exposure
H411 - Toxic to aquatic life with long lasting effects
EUH208 - May produce an allergic reaction

Precautionary Statements - EU (§28, 1272/2008)
P314 - Get medical advice/attention if you feel unwell
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P273 - Avoid release to the environment
P280 - Wear protective gloves/protective clothing/eye protection/face protection

2.3 Other Hazards

General Hazards No information available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Component	EC No.	CAS-No	Weight %	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH No.	Note
2-Phenoxyethyl acrylate	256-360-6	48145-04-6	< 30	Skin Sens. 1A (H317) Aquatic Chronic 2 (H411)	No data available	
N-vinylcaprolactam	218-787-6	2235-00-9	< 30	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Eye Irrit. 2A (H319) Skin Sens. 1B (H317) STOT RE 1 (H372)	No data available	
Titanium dioxide	236-675-5	13463-67-7	< 30	Not Classified	No data available	1
Trimethylolpropane triacrylate (TMPTA)	239-701-3	15625-89-5	< 10	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317)	No data available	
Hexamethylene diacrylate (HDODA)	235-921-9	13048-33-4	< 10	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317)	No data available	
Carbon black	215-609-9 435-640-3	1333-86-4	< 10	Not Classified	No data available	1
(2,4,6 trimethylbenzoyl) diphenyl phosphine oxide	278-355-8	75980-60-8	< 5	Repr. 2 (H361f)	No data available	
Silicon Dioxide	231-545-4	7631-86-9	< 5	Not Classified	No data available	1
Phosphine oxide, phenylbis(2,4,6-trimethyl benzoyl)-	423-340-5	162881-26-7	< 0.5	Skin Sens. 1 (H317) Aquatic Chronic 4 (H413)	No data available	
1-Butanone, 2-(dimethylamino)-1-[4-(4-morpholinyl)phenyl]-2-(phenylmethyl)-	404-360-3	119313-12-1	< 0.5	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	No data available	

Note
1. Substance with a Community workplace exposure limit

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

Section 4: FIRST AID MEASURES

4.1 Description of first aid measures

General Advice Show this safety data sheet to the doctor in attendance.
Eye Contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention if irritation develops and persists.
Skin Contact Wash off immediately with soap and plenty of water for at least 15 minutes. Remove

contaminated clothing. If irritation (redness, rash, blistering) develops, get medical attention.

Inhalation Remove person to fresh air and keep comfortable for breathing. If breathing is irregular or stopped, administer artificial respiration. Get medical attention immediately.

Ingestion Do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

None under normal use conditions.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing Media

Foam. Carbon dioxide (CO2). Dry chemical. Water spray. 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 gases and vapors. May emit toxic fumes under fire conditions. Hazardous polymerization may take place during a fire due to heat. Closed containers could violently rupture.

5.3 Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Cool containers / tanks with water spray. Sealed containers may rupture when heated.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Ventilate the area. Avoid contact with eyes, skin and clothing. Avoid breathing dust or vapor. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. Keep out of drains, sewers, ditches and waterways. Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and material for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Use clean non-sparking tools to collect absorbed material.

6.4 Reference to other sections

See Section 12 for more information.

Section 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Use personal protective equipment as required. Do not eat, drink or smoke when using this product. Ensure adequate ventilation.

7.2 Conditions for safe storage, including any incompatibilities

Keep at temperatures between 18°-32°C (65°-90°F). Keep containers tightly closed in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep out of the reach of children. Protect from direct sunlight. Keep away from open flames, hot surfaces and sources of ignition.

7.3 Specific end use(s)

Exposure Scenario No information available.

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Exposure limits

Component	The United Kingdom
Titanium dioxide 13463-67-7	STEL: 30 mg/m³ (total inhalable) STEL: 12 mg/m³ (respirable) TWA: 10 mg/m³ (total inhalable) TWA: 4 mg/m³ (respirable)
Carbon black 1333-86-4	STEL: 7 mg/m³ TWA: 3.5 mg/m³
Silicon Dioxide 7631-86-9	STEL: 18 mg/m³ (inhalable dust) STEL: 7.2 mg/m³ (respirable dust) TWA: 6 mg/m³ (inhalable dust) TWA: 2.4 mg/m³ (respirable dust)

Component	France
Titanium dioxide 13463-67-7	TWA/VME: 10 mg/m³ (as Ti)
Carbon black 1333-86-4	TWA/VME: 3.5 mg/m³

Component	Germany
Silicon Dioxide 7631-86-9	TWA/MAK: 4 mg/m³ (inhalable fraction) TWA/AGW: 4 mg/m³ (inhalable fraction)

Component	Spain
Titanium dioxide 13463-67-7	TWA/VLA-ED: 10 mg/m³
Carbon black 1333-86-4	TWA/VLA-ED: 3.5 mg/m³

Component	Portugal
Titanium dioxide 13463-67-7	TWA/VLE-MP: 10 mg/m³
Carbon black 1333-86-4	TWA/VLE-MP: 3.5 mg/m³

Component	Finland
Carbon black 1333-86-4	TWA: 3.5 mg/m³ STEL: 7 mg/m³

Component	Denmark
Titanium dioxide 13463-67-7	TWA: 6 mg/m³ (as Ti)
Carbon black 1333-86-4	TWA: 3.5 mg/m³

Component	Austria
Titanium dioxide 13463-67-7	STEL/KZW: 10 mg/m³ (alveolar dust, respirable fraction) TWA/TMW: 5 mg/m³ (alveolar dust, respirable fraction)
Silicon Dioxide 7631-86-9	TWA/TMW: 4 mg/m³ (inhalable fraction) TWA/TMW: 0.3 mg/m³ (respirable fraction)

Component	Switzerland
Titanium dioxide 13463-67-7	TWA/MAK: 3 mg/m³ (respirable)

Silicon Dioxide 7631-86-9	TWA/MAK: 4 mg/m³ (inhalable) TWA/MAK: 0.3 mg/m³ (respirable)

Component	Poland
Titanium dioxide 13463-67-7	TWA/NDS: 10.0 mg/m³ (total inhalable dust)
Carbon black 1333-86-4	TWA/NDS: 4.0 mg/m³ (total inhalable dust)

Component	Norway
Titanium dioxide 13463-67-7	TWA: 5 mg/m³
Carbon black 1333-86-4	TWA: 3.5 mg/m³
Silicon Dioxide 7631-86-9	TWA: 1.5 mg/m³ (respirable dust)

Component	Ireland
Titanium dioxide 13463-67-7	TWA: 10 mg/m³ (total inhalable dust) TWA: 4 mg/m³ (respirable dust)
Carbon black 1333-86-4	TWA: 3.5 mg/m³ STEL: 7 mg/m³
Silicon Dioxide 7631-86-9	TWA: 6 mg/m³ (total inhalable dust) TWA: 2.4 mg/m³ (respirable dust)

Derived No Effect Level (DNEL) No information available.
Predicted No Effect Concentration (PNEC) No information available.

8.2 Exposure controls

Engineering Measures Provide a good standard of general ventilation. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan. Users are advised to consider national Occupational Exposure Limits or other equivalent values. In case of insufficient ventilation, wear suitable respiratory equipment.

Personal protective equipment

Eye/face Protection Wear safety glasses with side shields (or goggles). If splashes are likely to occur:. Wear suitable face shield. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye Protection Ensure that eyewash stations and safety showers are close to the workstation location. Avoid contact with eyes. Safety glasses with side-shields. Goggles. Face-shield.

Skin Protection Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Wash hands before eating, drinking or smoking. Wash contaminated clothing before reuse. Avoid contact with eyes, skin and clothing. Wear suitable gloves and eye/face protection. Regular cleaning of equipment, work area and clothing is recommended.

Environmental exposure controls No information available.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical State	Liquid	**Appearance**	Colored Liquid
Odor	Mild Sweet Acrylic	**Odor Threshold**	No information available

Property	Values	Remarks • Method
pH		No data available
Melting point/freezing point		No data available
Boiling point/Boiling Range	> 149 °C / 300 °F	

Flash Point	> 94 °C / > 201 °F	Pensky Martens Closed Cup (PMCC)
Evaporation rate		No data available
Flammability Limit in Air		
Upper flammability limit		No data available
Lower flammability limit		No data available
Vapor Pressure		No data available
Vapor Density		No data available
Specific Gravity	1.08 - 1.56	
Water Solubility		No data available
Solubility in other solvents		No data available
Partition coefficient: n-octanol/water		No data available
Autoignition Temperature		No data available
Decomposition temperature		No data available
Kinematic viscosity		No data available
Dynamic viscosity		No data available
Explosive Properties	No data available	
Oxidizing Properties	No data available	

9.2 Other information

Softening Point No data available

Section 10: STABILITY AND REACTIVITY

10.1 Reactivity

No information available.

10.2 Chemical Stability

Stable under normal conditions.

10.3 Possibility of Hazardous Reactions

None under normal processing. Do not store for longer periods at temperatures above 93°C (200°F).

10.4 Conditions to avoid

Temperatures above 93 °C / 200 °F. Protect from direct sunlight. Keep away from open flames, hot surfaces and sources of ignition.

10.5 Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents. Reducing agent.

10.6 Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapors. Carbon dioxide (CO2). Carbon monoxide.

Section 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity

Inhalation	There is no data for this product.
Eye Contact	There is no data for this product.
Skin Contact	There is no data for this product.
Ingestion	There is no data for this product.

Unknown Acute Toxicity 33.73 % of the mixture consists of ingredient(s) of unknown toxicity.

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	2,704.00 mg/kg
ATEmix (dermal)	5,702.00 mg/kg

Unknown Acute Toxicity

33.73 % of the mixture consists of ingredient(s) of unknown toxicity.

9.26 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.
9.26 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.
33.73 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).
33.73 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).
33.73 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Component	Oral LD50
2-Phenoxyethyl acrylate 48145-04-6	4660 µL/kg (Rat)
Titanium dioxide 13463-67-7	>10000 mg/kg (Rat)
Trimethylolpropane triacrylate (TMPTA) 15625-89-5	5190 µL/kg (Rat)
Hexamethylene diacrylate (HDODA) 13048-33-4	5 g/kg (Rat)
Carbon black 1333-86-4	>15400 mg/kg (Rat)
Silicon Dioxide 7631-86-9	>5000 mg/kg (Rat)

Component	LD50 Dermal
2-Phenoxyethyl acrylate 48145-04-6	2540 µL/kg (Rabbit)
Trimethylolpropane triacrylate (TMPTA) 15625-89-5	5000 mg/kg (Rabbit)
Hexamethylene diacrylate (HDODA) 13048-33-4	3600 µL/kg (Rabbit)
Carbon black 1333-86-4	>3 g/kg (Rabbit)
Silicon Dioxide 7631-86-9	>2000 mg/kg (Rabbit)

Component	Inhalation LC50
Silicon Dioxide 7631-86-9	>2.2 mg/L (Rat) 1 h

Skin corrosion/irritation There is no data for this product.
Eye damage/irritation There is no data for this product.
Sensitisation There is no data for this product.
Mutagenic Effects There is no data for this product.
Carcinogenic effects There is no data for this product.
Reproductive Effects There is no data for this product.

Component	CMR, categories 1 and 2
(2,4,6 trimethylbenzoyl) diphenyl phosphine oxide 75980-60-8	Repr. 2

STOT - single exposure There is no data for this product.
STOT - repeated exposure There is no data for this product.
Aspiration hazard There is no data for this product.

Section 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxic to aquatic life with long lasting effects

Unknown Aquatic Toxicity
0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Component	Algae/aquatic plants
Silicon Dioxide 7631-86-9	72h EC50 Pseudokirchneriella subcapitata: 440 mg/L

Component	Fish

Silicon Dioxide 7631-86-9	96h LC50 Brachydanio rerio: 5000 mg/L [static]

Component	Crustacea
Carbon black 1333-86-4	24h EC50 Daphnia magna: >5600 mg/L
Silicon Dioxide 7631-86-9	48h EC50 Ceriodaphnia dubia: 7600 mg/L

12.2 Persistence and degradability
No information available.

12.3 Bioaccumulative potential
No information available.

12.4 Mobility in soil
No information available.

12.5 Results of PBT and vPvB assessment
This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

12.6 Other adverse effects.
No information available.

Section 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste from Residues / Unused Products Contain and dispose of waste according to local regulations.

Contaminated Packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14: TRANSPORT INFORMATION

ADR

Not Regulated
Exception: If in containers of 5L or less for liquids or 5KG or less for Solids these items may be shipped as not regulated [additional general packaging requirements must be met see ADR special provision 375]

ICAO / IATA / IMDG / IMO

Not Regulated
Exception: If in containers of 5L or less for liquids or 5KG or less for solids these items may be shipped as not regulated [additional general packaging requirements must be met see ICAO/IATA special provision A197]
Exception: If in containers of 5L or less for liquids or 5KG or less for solids these items may be shipped as not regulated [additional general packaging requirements must be met see IMDG code 2.10.2.7]

Section 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

European Union

International Inventories

For further information, please contact: Supplier (manufacturer/importer/downstream user/distributor)

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 H-Statements referred to under sections 2 and 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
H413 - May cause long lasting harmful effects to aquatic life
H302 - Harmful if swallowed
H312 - Harmful in contact with skin
H372 - Causes damage to organs through prolonged or repeated exposure if inhaled
H411 - Toxic to aquatic life with long lasting effects
H361f - Suspected of damaging fertility

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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

Revision Date Dec-08-2015

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

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet