

SAFETY DATA SHEET

Print DateRevision DateRevision NumberMay-30-2015May-30-20151

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product code 18369
Product name Green

Product category 1800 PowerPrint® Plus UV Screen Ink

Other means of identification

Synonyms None

Recommended use of the chemical and restrictions on use
Recommended use Printing operations

Details of the supplier of the safety data sheet

UNITED STATES
UNITED KINGDOM
Nazdar Company
Nazdar Limited
8501 Hedge Lane Terrace
Shawnee, KS 66227
Barton Road
Heaton Mersey

Tel: 1-913-422-1888 Stockport, England SK4 3EG
Tel: 1-800-677-4657 Tel: +44 161 442 2111

Fax: 1-913-422-2294 www.nazdar.com

Emergency telephone number

USA: Chemtrec: 1-800-424-9300 Outside USA: Chemtrec: 1-703-527-3

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

2. HAZARDS IDENTIFICATION

Classification

Acute toxicity - Oral	Category 4 - (H302)
Skin Corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)
Skin sensitization	Category 1B - (H317)
Reproductive toxicity	Category 2 - (H361)
Specific target organ toxicity (repeated exposure)	Category 1 - (H372)

Label elements





Signal Word Danger

Hazard Statements

H302 - Harmful if swallowed

- H315 Causes skin irritation
- H317 May cause an allergic skin reaction
- H319 Causes serious eye irritation
- H361 Suspected of damaging fertility or the unborn child
- H372 Causes damage to organs through prolonged or repeated exposure
- P280 Wear eye protection/ face protection
- P280 Wear protective gloves/protective clothing/eye protection/face protection
- P260 Do not breathe dust/fume/gas/mist/vapors/spray

Hazards not otherwise classified (HNOC)

May be harmful in contact with skin.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Inhalation

Component	CAS-No	Weight %	Trade Secret	Note
Glycol Ether Acrylate	Trade Secret	10 - 30	*	
Vinyl Functional Monomer	Trade Secret	10 - 30	*	
Acrylated Monomer	Trade Secret	5 - 10	*	
Acrylated Monomer	Trade Secret	5 - 10	*	
Copper Phthalocyanine Compound	Trade Secret	5 - 10	*	
Photoinitiator	Trade Secret	1 - 5	*	
Photoinitiator	Trade Secret	1 - 5	*	
Silicon Dioxide	7631-86-9	1 - 5	*	

^{*}The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

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. 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. Never give anything by mouth to an unconscious person. Call a

physician or poison control center immediately.

Most important symptoms and effects, both acute and delayed

None under normal use conditions.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

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.

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Specific Hazards Arising from the Chemical

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.

Protective Equipment and Precautions 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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions 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.

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.

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.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Use personal protective equipment as required. Do not eat, drink or smoke when using this

product. Ensure adequate ventilation.

Conditions for safe storage, including any incompatibilities

Storage 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.

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits

Component	OSHA PEL
Silicon Dioxide	TWA: 6 mg/m ³
7631-86-9	_

Appropriate engineering 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.

Individual protection measures, such as 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.

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State Liquid Appearance Colored Liquid

Odor Mild Sweet Acrylic Odor Threshold No information available

<u>Property</u> <u>Values</u> <u>Remarks • Method</u>

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
Lower flammability limit
Vapor Pressure
Vapor Density

No data available

Specific Gravity 1.12

Water Solubility

Solubility in other solvents

Partition coefficient: n-octanol/water

Autoignition Temperature

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

Other Information

Photochemically Reactive No Weight Per Gallon (lbs/gal) 9.34

VOC by weight %	VOC by volume %	VOC lbs/gal	VOC grams/liter
(less water)	(less water)	(less water)	(less water)
0-1	0-1	0-1	4.93

10. STABILITY AND REACTIVITY

Reactivity

No information available.

Chemical stability

Stable under normal conditions.

Possibility of Hazardous Reactions

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

Conditions to avoid

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

Incompatible materials

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

Hazardous Decomposition Products

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

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

InhalationThere is no data for this product.Eye ContactThere is no data for this product.Skin ContactThere is no data for this product.IngestionThere is no data for this product.

Component	Oral LD50
Glycol Ether Acrylate	4660 μL/kg (Rat)
Acrylated Monomer	5190 μL/kg (Rat)
Acrylated Monomer	5 g/kg(Rat)
Copper Phthalocyanine Compound	3000 mg/kg (Rat)
Silicon Dioxide 7631-86-9	>5000 mg/kg(Rat)

Component	LD50 Dermal
Glycol Ether Acrylate	2540 μL/kg (Rabbit)
Acrylated Monomer	5000 mg/kg(Rabbit)
Acrylated Monomer	3600 μL/kg (Rabbit)
Silicon Dioxide 7631-86-9	>2000 mg/kg (Rabbit)

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

Information on toxicological effects

Symptoms There is no data for this product.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

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

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STOT - single exposure
STOT - repeated exposure
Chronic Toxicity
Aspiration hazard

There is no data for this product.

Carcinogenicity This product does not contain any carcinogens or potential carcinogens as listed by OSHA,

IARC or NTP.

Numerical measures of toxicity - Product Information

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

ATEmix (oral) 2,585.00 mg/kg **ATEmix (dermal)** 5,471.00 mg/kg mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

None known

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

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

Component	Fish
Copper Phthalocyanine Compound	96h LC50 Lepomis macrochirus: 752.4 mg/L [static]
Silicon Dioxide 7631-86-9	96h LC50 Brachydanio rerio: 5000 mg/L [static]

Component	Crustacea
Copper Phthalocyanine Compound	24h EC50 Daphnia magna Straus: >500 mg/L
Silicon Dioxide 7631-86-9	48h EC50 Ceriodaphnia dubia: 7600 mg/L

Persistence and Degradability

No information available.

Bioaccumulation

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste Disposal Methods 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.

14. TRANSPORT INFORMATION

DOTNot regulatedProper Shipping NamePrinting Ink

ICAO / IATA / IMDG / IMO
Proper Shipping Name
Not Regulated
Printing Ink

15. REGULATORY INFORMATION

International Inventories

All components are listed on the TSCA Inventory. For further information, please contact:. Supplier (manufacturer/importer/downstream user/distributor).

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Component	CAS-No	Weight %	SARA 313 - Threshold Values
Glycol Ether Acrylate	Trade Secret	10 - 30	1.0

The above glycol ether acrylate is considered a reactive chemical in ultraviolet curable inks. Once initiated by a high dose of ultraviolet light, this glycol ether acrylate rapidly polymerizes (i.e. hardens) and becomes part of the ink film. The polymerization process of UV curable inks is measured in milliseconds.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following substances which are listed hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act:.

Component	CAS-No	Weight %
Glycol Ether Acrylate	Trade Secret	10 - 30

U.S. State Regulations

Component	Massachusetts Right To Know
Silicon Dioxide	X
7631-86-9	

Component	Minnesota Right To Know
Acrylated Monomer	Х
Acrylated Monomer	Х
Silicon Dioxide 7631-86-9	×

Component	New Jersey Right To Know
Glycol Ether Acrylate	×
Copper Phthalocyanine Compound	X
Silicon Dioxide 7631-86-9	X

Component	Pennsylvania Right To Know
Glycol Ether Acrylate	X
Copper Phthalocyanine Compound	X
Silicon Dioxide 7631-86-9	X

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California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects

Canada

No information available

Component	NPRI - National Pollutant Release Inventory
Copper Phthalocyanine Compound	Part 1, Group A Substance total of the pure element and the
	equivalent weight of the element contained in any compound,
	alloy or mixture

16. OTHER INFORMATION

HMIS: Health Flammability Reactivity Personal Protection 2 1 X

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average)
STEL STEL (Short Term Exposure Limit)

Ceiling Maximum limit value

ACGIH: (American Conference of Governmental Industrial Hygienists)

A1 - Known Human Carcinogen
A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans Group 2B - Possibly Carcinogenic to Humans

NTP: (National Toxicity Program)

Known - Known Carcinogen

Reasonably Anticipated to be a Human Carcinogen OSHA: (Occupational Safety & Health Administration)

X - Present

Revision Date May-30-2015

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 MSDS