

SAFETY DATA SHEET

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1. IDENTIFICATION

Product identifier

Product Code(s) 9775

Product name Super Opaque White

Product category 9700 Series SV Screen Ink

Other means of identification

Synonyms None

Recommended use of the chemical and restrictions on use
Recommended use
Industrial Printing Operations

Details of the supplier of the safety data sheet

UNITED STATES
UNITED KINGDOM
Nazdar Company
Nazdar Limited
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Shawnee, KS 66227
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Heaton Mersey

Tel: +001-913-422-1888 Stockport, England SK4 3EG Tel: +001-800-677-4657 Tel: +44 161 442 2111

Fax: +001-913-422-2294 www.nazdar.com

Emergency telephone number

USA: Chemtrec: +001-800-424-9300

Outside USA: Chemtrec: +001-703-527-3887

24 Hour Emergency Phone Number

2. HAZARDS IDENTIFICATION

Classification

Acute toxicity - Inhalation (Vapors)	Category 3 - (H331)
Acute toxicity - Inhalation (Dusts/Mists)	Category 4 - (H332)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)
Skin sensitization	Category 1 - (H317)

Label elements



Signal word Danger

Hazard statements

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

H331 - Toxic if inhaled H332 - Harmful if inhaled

Precautionary Statements

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

P280 - Wear protective gloves and eye/face protection

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

P311 - Call a POISON CENTER or doctor

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

Hazards not otherwise classified (HNOC)

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Mixture</u>

Inhalation

Chemical name	CAS No.	Weight-%	Trade	Note
		_	secret	
2-Butoxyethanol	111-76-2	30 - 60	*	
Titanium Dioxide	13463-67-7	30 - 60	*	
Resin	Not Available	5 - 10	*	
Silicon dioxide, amorphous	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.

Special Provisions

Thermal decomposition can lead to release of irritating gases and vapors. May emit toxic fumes under fire conditions.

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 containers tightly closed in a dry, cool and well-ventilated place. Keep away from open

flames, hot surfaces and sources of ignition. Keep container closed when not in use. Keep

out of the reach of children.

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits

Chemical name	ACGIH TLV
2-Butoxyethanol 111-76-2	TWA: 20 ppm
	TWA: 0.2 mg/m³ nanoscale respirable particulate matter TWA: 2.5 mg/m³ finescale respirable particulate matter

Chemical name	OSHA PEL
2-Butoxyethanol	TWA: 50 ppm
111-76-2	TWA: 240 mg/m³
	Skin
Titanium Dioxide	TWA: 15 mg/m³ total dust
13463-67-7	

Chemical name	OSHA PEL (vacated)
2-Butoxyethanol	TWA: 25 ppm
111-76-2	TWA: 120 mg/m ³
	Skin
Titanium Dioxide	TWA: 10 mg/m³ total dust

13463-67-7	
Silicon dioxide, amorphous	TWA: 6 mg/m ³
7631-86-9	

Chemical name	Ontario TWAEV
2-Butoxyethanol	TWA: 20 ppm
Titanium Dioxide 13463-67-7	TWA: 10 mg/m ³

Chemical name	Mexico OEL (TWA)
2-Butoxyethanol 111-76-2	TWA/VLE-PPT: 20 ppm
Titanium Dioxide 13463-67-7	TWA/VLE-PPT: 10 mg/m ³

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.

Hand Protection Chemical resistant protective gloves.

Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding >480 minutes of permeation time): eg. nitrile rubber (0.4 mm), chloroprene

rubber (0.5 mm), polyvinylchloride (0.7 mm) and other

Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers. Taking into account the varying conditions, the practical usage of a

chemical-protective glove in practice may be much shorter than the permeation time determined through testing.

Due to different glove types, the manufacturer's directions for use should be observed. Replace gloves immediately when torn or any change in appearance is noticed such as

dimension, color, flexibility.

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. Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of

the material.

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

Odor Characteristic Odor threshold No information available

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

pH
 Melting point / freezing point
 No information available
 No data available
 No data available

Initial boiling point and boiling range> 149 °C / 300 °F

Flash point 62 °C / 143 °F Pensky Martens Closed Cup (PMCC)

Evaporation rate No data available

Flammability Limit in Air

Upper flammability or explosive No data available

limits

Lower flammability or explosive No data available

limits

Vapor pressureNo data availableRelative vapor densityNo data available

Specific gravity - VALUE 1 1.34

Water SolubilityNo data availableSolubility in other solventsNo data availablePartition coefficientNo data availableAutoignition temperatureNo information availableNo data availableHyphenNo data available

HyphenNo data availableKinematic viscosityNo data availableDynamic viscosityNo data available

Explosive Properties No data available Oxidizing Properties No data available

Other information

Photochemically Reactive No Weight Per Gallon (lbs/gal) 11.21

VOC by weight % (less water)	VOC by volume % (less water)	VOC lbs/gal (less water)	VOC grams/liter (less water)	
38.38	53.19	4.3	515.82	

10. STABILITY AND REACTIVITY

Reactivity

No information available.

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

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

Inhalation Specific test data for the substance or mixture is not available. Toxic if inhaled. (based on

components). Harmful if inhaled.

Eye ContactSpecific test data for the substance or mixture is not available.Skin ContactSpecific test data for the substance or mixture is not available.IngestionSpecific test data for the substance or mixture is not available.

Chemical name	Oral LD50
2-Butoxyethanol	= 470 mg/kg (Rat)
111-76-2	
Titanium Dioxide	> 10000 mg/kg (Rat)
13463-67-7	
Silicon dioxide, amorphous	= 7900 mg/kg (Rat)
7631-86-9	

Chemical name	Dermal LD50
2-Butoxyethanol 111-76-2	= 435 mg/kg (Rabbit)
Resin	> 2000 mg/kg (Rat)
Silicon dioxide, amorphous 7631-86-9	> 5000 mg/kg (Rabbit)

Chemical name	Inhalation LC50
2-Butoxyethanol	= 450 ppm (Rat) 4 h
111-76-2	= 486 ppm (Rat) 4 h
Titanium Dioxide	= 5.09 mg/L (Rat) 4 h
13463-67-7	
Silicon dioxide, amorphous	> 58.8 mg/L (Rat)4 h
7631-86-9	

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Specific test data for the substance or mixture is not available.

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

Skin corrosion/irritation Specific test data for the substance or mixture is not available. Causes skin irritation (pain,

redness and swelling). (based on components).

Eye damage/irritation Specific test data for the substance or mixture is not available. Causes serious eye irritation.

(based on components).

IrritationSpecific test data for the substance or mixture is not available.CorrosivitySpecific test data for the substance or mixture is not available.

Sensitization Specific test data for the substance or mixture is not available. May cause an allergic skin

reaction. (based on components).

Mutagenic EffectsSpecific test data for the substance or mixture is not available.Carcinogenic effectsSpecific test data for the substance or mixture is not available.Reproductive EffectsSpecific test data for the substance or mixture is not available.STOT - single exposureSpecific test data for the substance or mixture is not available.STOT - repeated exposureSpecific test data for the substance or mixture is not available.Chronic ToxicitySpecific test data for the substance or mixture is not available.Aspiration hazardSpecific test data for the substance or mixture is not available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Carcinogenicity	table below indicates whether each agency has listed any ingredient as a carellogen.
Chemical name	ACGIH
2-Butoxyethanol 111-76-2	A3
Titanium Dioxide 13463-67-7	A3

Chemical name	IARC
Titanium Dioxide	Group 2B
13463-67-7	

Chemical name	OSHA

Titanium Dioxide	X
13463-67-7	

Numerical measures of toxicity - Product Information

Unknown acute toxicity 0 % 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) 1,227.80 mg/kg **ATEmix (dermal)** 99,999.00 mg/kg

ATEmix (inhalation-gas) 99,999.00 ATEmix (inhalation-dust/mist) 1.31 mg/l ATEmix (inhalation-vapor) 7.84 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Specific test data for the substance or mixture is not available.

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

Chemical name	Algae/aquatic plants
Silicon dioxide, amorphous	72h EC50 Pseudokirchneriella subcapitata: = 440 mg/L
7631-86-9	

Chemical name	Fish
2-Butoxyethanol	96h LC50 Lepomis macrochirus: = 1490 mg/L (static)
111-76-2	96h LC50 Lepomis macrochirus: = 2950 mg/L
Resin	96h LC50 Oncorhynchus mykiss: = 11.5 mg/L (static)
Silicon dioxide, amorphous	96h LC50 Brachydanio rerio: = 5000 mg/L (static)
7631-86-9	

Chemical name	Crustacea
2-Butoxyethanol	48h EC50 Daphnia magna: > 1000 mg/L
111-76-2	
Silicon dioxide, amorphous	48h EC50 Ceriodaphnia dubia: = 7600 mg/L
7631-86-9	

Persistence and degradability

No information available.

Bioaccumulation

Chemical name	Partition coefficient
2-Butoxyethanol	0.81
111-76-2	

13. DISPOSAL CONSIDERATIONS

Disposal 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

Note: This information is not intended to convey all specific transportation requirements relating to

this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation information can be found in the specific regulations for your mode of transportation. It is the responsibility of the transporting organization to follow all applicable laws, regulations and

rules relating to the transportation of the material.

DOT Not regulated

ICAO / IATA / IMDG / IMO Not Regulated

15. REGULATORY INFORMATION

International Inventories

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

US 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.

Chemical name	CAS No.	Weight-%	SARA 313 - Threshold Values %
2-Butoxyethanol	111-76-2	30 - 60	1.0

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

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

US State Regulations

Chemical name	Massachusetts
2-Butoxyethanol	X
111-76-2	
Titanium Dioxide	X
13463-67-7	
Silicon dioxide, amorphous	X
7631-86-9	

Chemical name	Minnesota
	Right To Know
2-Butoxyethanol	X
111-76-2	
Titanium Dioxide	X
13463-67-7	
Silicon dioxide, amorphous	X
7631-86-9	

Chemical name	New Jersey
2-Butoxyethanol	X
111-76-2	
Titanium Dioxide	X X
1 13463-67-7	

Chemical name	Pennsylvania
2-Butoxyethanol	X
111-76-2	

Titanium Dioxide 13463-67-7	X
Silicon dioxide, amorphous 7631-86-9	X

California Proposition 65

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm

Chemical name	California Proposition 65
Titanium Dioxide	Carcinogen

This product contains titanium dioxide in a non-respirable form. Inhalation of titanium dioxide is unlikely to occur from exposure to this product.

Canada

Chemical name	NPRI - National Pollutant Release Inventory
2-Butoxyethanol	Part 1, Group A Substance
111-76-2	Part 5 Substance - Volatile Organic Compounds with Additional
	Reporting Requirements
	Part 4 Substance - Criteria Air Contaminants

16. OTHER INFORMATION

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 Sk* Skin designation

+ Sensitizers

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

Group 3 - Not Classifiable as to Carcinogenicity in Humans

NTP: (National Toxicity Program)

Known - Known Carcinogen

Reasonably Anticipated to be a Human Carcinogen

OSHA: (Occupational Safety & Health Administration)

X - Present

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Pursuant to NOM-018-STPS-2015

This information within is considered correct but is not exhaustive and will be used for guidance only, which is based on the current knowledge of the substance or mixture and is applicable to the appropriate safety precautions for the product.

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