

SAFETY DATA SHEET

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

Product identifier

Product code 8975

Product name Super Opaque White

Product category 8900 Series SV Thermo-Set 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
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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

Chronic aquatic toxicity	Category 3 - (H412)
Flammable liquids	Category 3 - (H226)

Label elements



Signal Word Warning

Hazard Statements

H412 - Harmful to aquatic life with long lasting effects

H226 - Flammable liquid and vapor

Precautionary Statements

P273 - Avoid release to the environment

P233 - Keep container tightly closed

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

P403 + P235 - Store in a well-ventilated place. Keep cool

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

Hazards not otherwise classified (HNOC)

Causes mild skin irritation. Harmful to aquatic life.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Mixture</u>

Inhalation

Ingestion

Component	CAS-No	Weight %	Trade Secret	Note
Titanium dioxide	13463-67-7	30 - 60	*	
Diethylene glycol monobutyl ether	112-34-5	1 - 5	*	
Naphthalene (constituent)	91-20-3	< 0.5	*	1

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

Note 1. Type of chemical: Constituent

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.

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.

Specific Hazards Arising from the Chemical

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

Revision Date May-15-2019

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

Component	ACGIH TLV
Titanium dioxide	TWA: 10 mg/m ³
13463-67-7	
Diethylene glycol monobutyl ether	TWA: 10 ppm inhalable fraction and vapor
112-34-5	
Naphthalene (constituent)	TWA: 10 ppm
91-20-3	Skin

Component	OSHA PEL
Titanium dioxide	TWA: 15 mg/m³ total dust
13463-67-7	
Naphthalene (constituent)	TWA: 10 ppm
91-20-3	TWA: 50 mg/m ³

Component	OSHA PEL (vacated)
Titanium dioxide	TWA: 10 mg/m³ total dust
13463-67-7	-
Naphthalene (constituent)	TWA: 10 ppm
91-20-3	TWA: 50 mg/m ³
	STEL: 15 ppm
	STEL: 75 mg/m ³

Component	Ontario TWAEV
Titanium dioxide	TWA: 10 mg/m ³
13463-67-7	
Diethylene glycol monobutyl ether	TWA: 10 ppm inhalable fraction and vapor
112-34-5	
Naphthalene (constituent)	TWA: 10 ppm
91-20-3	Skin

Component	Mexico OEL (TWA)
Titanium dioxide	TWA/VLE-PPT: 10 mg/m ³
13463-67-7	STEL/PPT-CT: 20 mg/m ³
Naphthalene (constituent)	TWA/VLE-PPT: 10 ppm
91-20-3	TWA/VLE-PPT: 50 mg/m ³
	STEL/PPT-CT: 15 ppm
	STEL/PPT-CT: 75 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 Liquid

Odor Characteristic 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 46 °C / 115 °F Pensky Martens Closed Cup (PMCC)

Evaporation rate No data available

Flammability Limit in Air
Upper flammability limit
Lower flammability limit
Vapor Pressure

No data available
No data available
No data available

Vapor Density No data available

Specific Gravity 1.58

Water SolubilityNo data availableSolubility in other solventsNo data availablePartition coefficient: n-octanol/waterNo data availableAutoignition TemperatureNo data availableDecomposition temperatureNo 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) 13.14

VOC by weight %	VOC by volume %	VOC lbs/gal	VOC grams/liter
(less water)	(less water)	(less water)	(less water)
8.21	13.96	1.08	129.42

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

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

Component	Oral LD50
Titanium dioxide 13463-67-7	> 10000 mg/kg(Rat)
Diethylene glycol monobutyl ether 112-34-5	= 5660 mg/kg(Rat)
Naphthalene (constituent) 91-20-3	= 1110 mg/kg(Rat)

Component	Dermal LD50
Diethylene glycol monobutyl ether	= 2700 mg/kg (Rabbit)
112-34-5	
Naphthalene (constituent)	= 1120 mg/kg (Rabbit)

91-20-3	
Component	Inhalation LC50
	> 340 mg/m³(Rat) 1 h

Information on toxicological effects

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.
Eye damage/irritation	Specific test data for the substance or mixture is not available.
Irritation	Specific test data for the substance or mixture is not available.
Corrosivity	Specific test data for the substance or mixture is not available.
Sensitization	Specific test data for the substance or mixture is not available.
Mutagenic Effects	Specific test data for the substance or mixture is not available.
Carcinogenic effects	Specific test data for the substance or mixture is not available.
Reproductive Effects	Specific test data for the substance or mixture is not available.
STOT - single exposure	Specific test data for the substance or mixture is not available.
STOT - repeated exposure	Specific test data for the substance or mixture is not available.
Chronic Toxicity	Specific test data for the substance or mixture is not available
Aspiration hazard	Specific 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.

our our ogornoity	The table below indicated whether each agency has noted any ingredient as a careinegen.	
Component		ACGIH
Naphthalene (constituent)		A3
91-20-3		

Component	IARC
Titanium dioxide	Group 2B
13463-67-7	·
Naphthalene (constituent)	Group 2B
91-20-3	·

Component	NTP
Naphthalene (constituent)	Reasonably Anticipated
91-20-3	

Component	OSHA
Titanium dioxide 13463-67-7	х
Naphthalene (constituent) 91-20-3	X

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 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

Specific test data for the substance or mixture is not available. Harmful to aquatic life with long lasting effects. (based on components).

0.39 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Component	Algae/aquatic plants
Diethylene glycol monobutyl ether	96h EC50 Desmodesmus subspicatus: > 100 mg/L
112-34-5	

Component	Fish
Diethylene glycol monobutyl ether	96h LC50 Lepomis macrochirus: = 1300 mg/L (static)
112-34-5	
Naphthalene (constituent)	96h LC50 Pimephales promelas: 5.74 - 6.44 mg/L (flow-through)
91-20-3	96h LC50 Pimephales promelas: = 1.99 mg/L (static)
	96h LC50 Lepomis macrochirus: = 31.0265 mg/L (static)
	96h LC50 Oncorhynchus mykiss: = 1.6 mg/L (flow-through)
	96h LC50 Oncorhynchus mykiss: 0.91 - 2.82 mg/L (static)

Component	Crustacea
Diethylene glycol monobutyl ether	48h EC50 Daphnia magna: > 100 mg/L
112-34-5	
Naphthalene (constituent)	48h EC50 Daphnia magna: 1.09 - 3.4 mg/L Static
91-20-3	48h EC50 Daphnia magna: = 1.96 mg/L Flow through
	48h LC50 Daphnia magna: = 2.16 mg/L

Persistence and Degradability

No information available.

Bioaccumulation

No information available

Component	Partition coefficient
Naphthalene (constituent)	3.6
91-20-3	

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

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.

In the U.S. and Canada, this material may be reclassified as a combustible liquid and is not DOT

regulated, via surface transportation, in containers less than 119 gallons or 450 liters [per 49 CFR 173.150 (f)] [per Transportation of Dangerous Goods Regulations/Clear Language

Part 1.33].

UN1210 UN/ID no. **Proper Shipping Name** Printing Ink

Hazard Class 3 **Packing Group** Ш

ICAO / IATA / IMDG / IMO

UN/ID no. UN1210 **Proper Shipping Name** Printing Ink

Hazard Class 3 Ш **Packing Group**

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
Diethylene glycol monobutyl ether	112-34-5	1 - 5	1.0
Naphthalene (constituent)	91-20-3	< 0.5	0.1

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 %
Diethylene glycol monobutyl ether	112-34-5	1 - 5
Naphthalene (constituent)	91-20-3	< 0.5

U.S. State Regulations

	Massachusetts Right To Know
Titanium dioxide	X
13463-67-7	
Naphthalene (constituent)	X
91-20-3	

Component	Minnesota Right To Know
Titanium dioxide	X
13463-67-7	
Naphthalene (constituent)	X
91-20-3	

	New Jersey Right To Know
Titanium dioxide 13463-67-7	X
Diethylene glycol monobutyl ether 112-34-5	Х
Naphthalene (constituent) 91-20-3	Х

•	Pennsylvania Right To Know
Titanium dioxide 13463-67-7	x
Diethylene glycol monobutyl ether 112-34-5	Х
Naphthalene (constituent) 91-20-3	Х

California Prop. 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

Component	Camornia i rop. 03

Titanium dioxide	Carcinogen
Naphthalene (constituent)	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

Component	NPRI - National Pollutant Release Inventory
Diethylene glycol monobutyl ether	Part 5, Other Groups and Mixtures; Part 4 Substance
112-34-5	
Naphthalene (constituent)	Part 1, Group A Substance; Part 4 Substance
91-20-3	

16. OTHER INFORMATION						
HMIS:	Health 1 *	Flammability 2	Reactivity 0	Personal Protection		

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-15-2019

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