

SAFETY DATA SHEET

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

Product identifier Product code

Product name

Product category

9727 Mixing/Overprint Clear 9700 Series SV Screen Ink

Other means of identification Synonyms

Recommended use of the chemical and restrictions on useRecommended usePrinting operations

None

Details of the supplier of the safety data sheet

UNITED STATES Nazdar Company 8501 Hedge Lane Terrace Shawnee, KS 66227 Tel: +001-913-422-1888 Tel: +001-800-677-4657 Fax: +001-913-422-2294 www.nazdar.com UNITED KINGDOM Nazdar Limited Barton Road Heaton Mersey Stockport, England SK4 3EG Tel: +44 161 442 2111

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 - Oral	Category 4 - (H302)
Acute toxicity - Dermal	Category 4 - (H312)
Acute toxicity - Inhalation (Vapors)	Category 4 - (H332)
Acute toxicity - Inhalation (Dusts/Mists)	Category 4 - (H332)
Skin Corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)

Label elements



Warning

Hazard Statements H302 - Harmful if swallowed H312 - Harmful in contact with skin H315 - Causes skin irritation

H319 - Causes serious eye irritation

H332 - Harmful if inhaled

Precautionary Statements

P264 - Wash face, hands and any exposed skin thoroughly after handling

P270 - Do not eat, drink or smoke when using this product

P330 - Rinse mouth

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

P332 + P313 - If skin irritation occurs: Get medical advice/attention

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

P337 + P313 - If eye irritation persists: Get medical advice/attention

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

Hazards not otherwise classified (HNOC)

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Component	CAS-No	Weight %	Trade Secret	Note
2-Butoxyethanol	111-76-2	60 - 100	*	
Resin	Trade Secret	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 Eye Contact	Show this safety data sheet to the doctor in attendance. 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. 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

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

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

StorageKeep 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
2-Butoxyethanol 111-76-2	TWA: 20 ppm
111-70-2	

Component	OSHA PEL
2-Butoxyethanol	TWA: 50 ppm
111-76-2	TWA: 240 mg/m ³
	Skin
Component	OSHA PEL (vacated)
2-Butoxyethanol	TWA: 25 ppm
111-76-2	TWA: 120 mg/m ³
	Skin

Component	Ontario TWAEV
2-Butoxyethanol	TWA: 20 ppm
111-76-2	
Component	Mexico OEL (TWA)
2-Butoxyethanol	TWA/VLE-PPT: 26 ppm

111-76-2	TWA/VLE-PPT: 120 mg/m ³
	STEL/PPT-CT: 75 ppm
	STEL/PPT-CT: 360 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, suc	ch 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 Physical State Odor	<u>chemical properties</u> Liquid Characteristic	Appearance Odor Threshold	Colored Liquid No information available
<u>Property</u> pH Melting Point / Freezing Point Boiling Point / Boiling Range Flash Point Evaporation rate	<u>Values</u> > 149 °C / 300 °F 62 °C / 143 °F	Remarks • Method No data available No data available Pensky Martens Closed No data available	Cup (PMCC)
Flammability Limit in Air Upper flammability limit Lower flammability limit Vapor Pressure Vapor Density Specific Gravity	0.98	No data available No data available No data available No data available	
Water Solubility Solubility in other solvents Partition coefficient: n-octanol/wat Autoignition Temperature Decomposition temperature Kinematic viscosity Dynamic viscosity	er	No data available No data available No data available No data available No data available No data available No data available	
Explosive Properties Oxidizing Properties	No data available No data available		
Other Information			
Photochemically Reactive Weight Per Gallon (Ibs/gal)	No 8.14		

VOC by weight % (less water)	VOC by volume % (less water) 63.66	VOC lbs/gal (less water) 5.13	VOC grams/liter (less water) 614.57	
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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. Harmful if inhaled. (based on components).
Eye Contact	Specific test data for the substance or mixture is not available.
Skin Contact	Specific test data for the substance or mixture is not available. Harmful in contact with skin. (based on components).
Ingestion	Specific test data for the substance or mixture is not available. Harmful if swallowed. (based on components).

Component	Oral LD50
2-Butoxyethanol 111-76-2	= 470 mg/kg (Rat)
Component	Dermal I D50

Component	Dermai LD50
2-Butoxyethanol 111-76-2	= 99 mg/kg (Rabbit)
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Component	Inhalation LC50
2-Butoxyethanol	= 450 ppm (Rat)4 h
111-76-2	= 486 ppm (Rat) 4 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. 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).
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 STOT - single exposure STOT - repeated exposure	Specific test data for the substance or mixture is not available. Specific test data for the substance or mixture is not available. 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.		
Component	ACGIH		
2-Butoxyethanol	A3		
111-76-2			

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)795ATEmix (dermal)1,74ATEmix (inhalation-dust/mist)2.40ATEmix (inhalation-vapor)17.00

795.00 mg/kg 1,749.00 mg/kg mg/l 2.40 mg/l 17.00 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

Component	Fish
2-Butoxyethanol	96h LC50 Lepomis macrochirus: = 2950 mg/L
111-76-2	96h LC50 Lepomis macrochirus: = 1490 mg/L (static)

Component	Crustacea
2-Butoxyethanol	48h EC50 Daphnia magna: > 1000 mg/L
111-76-2	

Persistence and Degradability

No information available.

Bioaccumulation

No information available

Component	Partition coefficient
2-Butoxyethanol	0.81
111-76-2	

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

<u>SARA 313</u>

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
2-Butoxyethanol	111-76-2	60 - 100	1.0

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 %
2-Butoxyethanol	111-76-2	60 - 100

U.S. State Regulations

	Massachusetts Right To Know
2-Butoxyethanol 111-76-2	X

	Minnesota Right To Know
2-Butoxyethanol	X
111-76-2	

	New Jersey Right To Know
2-Butoxyethanol	Х
111-76-2	

nt To Know

California Prop. 65

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

<u>Canada</u>

Component	NPRI - National Pollutant Release Inventory
2-Butoxyethanol	Part 5, Individual Substances; Part 4 Substance
111-76-2	

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.

16. OTHER INFORMATION							
HMIS:	Health 2 *	Flammability 2	Reactivity 0	Personal Protection X			
Key or legend to abbreviations and acronyms used in the safety data sheet							
Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTIONTWATWA (time-weighted average)STELSTEL (Short Term Exposure Limit)CeilingMaximum 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

Aug-17-2018

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