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

**Product identifier**

**Product code** 89401  
**Product name** Halftone Cyan Dense  
**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
8501 Hedge Lane Terrace	Barton Road
Shawnee, KS 66227	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**

Flammable liquids	Category 3 - (H226)
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**Label elements**



**Signal Word**  
Warning

H226 - Flammable liquid and vapor

**Precautionary Statements**

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.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Mixture

Component	CAS-No	Weight %	Trade Secret	Note
Diethylene glycol monobutyl ether	112-34-5	5 - 10	*	

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

### 4. FIRST AID MEASURES

#### Description of first aid measures

<b>General Advice</b>	Show this safety data sheet to the doctor in attendance.
<b>Eye Contact</b>	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.
<b>Skin Contact</b>	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.
<b>Inhalation</b>	Remove person to fresh air and keep comfortable for breathing. If breathing is irregular or stopped, administer artificial respiration. Get medical attention immediately.
<b>Ingestion</b>	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 (CO<sub>2</sub>). 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**

**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
Diethylene glycol monobutyl ether 112-34-5	TWA: 10 ppm inhalable fraction and vapor

Component	Ontario TWAEV
Diethylene glycol monobutyl ether 112-34-5	TWA: 10 ppm inhalable fraction and vapor

**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**

<b>Physical State</b>	Liquid	<b>Appearance</b>	Colored Liquid
<b>Odor</b>	Characteristic	<b>Odor Threshold</b>	No information available

**Property****Values****Remarks • Method**

pH

No data available

Melting Point / Freezing Point

No data available

Boiling Point / Boiling Range

&gt; 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

No data available

Lower flammability limit

No data available

Vapor Pressure

No data available

Vapor Density

No data available

Specific Gravity

1.17

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

**Other Information**

Photochemically Reactive

No

Weight Per Gallon (lbs/gal)

9.74

VOC by weight % (less water)	VOC by volume % (less water)	VOC lbs/gal (less water)	VOC grams/liter (less water)
17.61	No information available	1.72	205.67

## 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 (CO<sub>2</sub>). Carbon monoxide.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

<b>Inhalation</b>	Specific test data for the substance or mixture is not available.
<b>Eye Contact</b>	Specific test data for the substance or mixture is not available.
<b>Skin Contact</b>	Specific test data for the substance or mixture is not available.
<b>Ingestion</b>	Specific test data for the substance or mixture is not available.

Component	Oral LD50
Diethylene glycol monobutyl ether 112-34-5	= 5660 mg/kg ( Rat )

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

**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**

<b>Skin corrosion/irritation</b>	Specific test data for the substance or mixture is not available.
<b>Eye damage/irritation</b>	Specific test data for the substance or mixture is not available.
<b>Irritation</b>	Specific test data for the substance or mixture is not available.
<b>Corrosivity</b>	Specific test data for the substance or mixture is not available.
<b>Sensitization</b>	Specific test data for the substance or mixture is not available.
<b>Mutagenic Effects</b>	Specific test data for the substance or mixture is not available.
<b>Carcinogenic effects</b>	Specific test data for the substance or mixture is not available.
<b>Reproductive Effects</b>	Specific test data for the substance or mixture is not available.
<b>STOT - single exposure</b>	Specific test data for the substance or mixture is not available.
<b>STOT - repeated exposure</b>	Specific test data for the substance or mixture is not available.
<b>Chronic Toxicity</b>	Specific test data for the substance or mixture is not available.
<b>Aspiration hazard</b>	Specific test data for the substance or mixture is not available.
<b>Carcinogenicity</b>	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

**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.

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

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

Component	Fish
Diethylene glycol monobutyl ether 112-34-5	96h LC50 Lepomis macrochirus: = 1300 mg/L (static)

Component	Crustacea
Diethylene glycol monobutyl ether 112-34-5	48h EC50 Daphnia magna: > 100 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

**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**

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

<b>UN/ID no.</b>	UN1210
<b>Proper Shipping Name</b>	Printing Ink
<b>Hazard Class</b>	3
<b>Packing Group</b>	III

**ICAO / IATA / IMDG / IMO**

<b>UN/ID no.</b>	UN1210
<b>Proper Shipping Name</b>	Printing Ink
<b>Hazard Class</b>	3
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### 15. REGULATORY INFORMATION

**International Inventories**



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**