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## 1. IDENTIFICATION

### Product identifier

Product code **4787**  
Product name **Blue Toner (RS)**  
Product category **4700 Series Water-Based 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
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

Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)
Skin sensitization	Category 1 - (H317)
Chronic aquatic toxicity	Category 2 - (H411)

### Label elements



Signal word  
Warning

### Hazard statements

H315 - Causes skin irritation  
H317 - May cause an allergic skin reaction  
H319 - Causes serious eye irritation  
H411 - Toxic to aquatic life with long lasting effects

**Precautionary Statements**

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

P273 - Avoid release to the environment

P280 - Wear protective gloves and eye/face protection

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

**Hazards not otherwise classified (HNOC)**

Toxic to aquatic life.

**3. COMPOSITION/INFORMATION ON INGREDIENTS****Mixture**

Chemical name	CAS No.	Weight-%	Trade secret	Note
Dipropylene glycol monomethyl ether	34590-94-8	1 - 5	*	
2-(Dimethylamino)ethanol	108-01-0	1 - 5	*	
Nonylphenol, branched, ethoxylated	68412-54-4	0.1 - < 1	*	
Additive	Not Available	0.1 - < 1	*	
2,4,7,9-Tetramethyl-5-decyne-4,7-diol	126-86-3	0.1 - < 1	*	
Isononylphenol, ethoxylated	37205-87-1	0.1 - < 1	*	

\*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.

**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

#### 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. Do not freeze.

#### Incompatible Products

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

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### Exposure limits

Chemical name	ACGIH TLV
Dipropylene glycol monomethyl ether 34590-94-8	TWA: 50 ppm

Chemical name	OSHA PEL
Dipropylene glycol monomethyl ether 34590-94-8	TWA: 100 ppm TWA: 600 mg/m <sup>3</sup> Skin

Chemical name	OSHA PEL (vacated)
Dipropylene glycol monomethyl ether 34590-94-8	TWA: 100 ppm TWA: 600 mg/m <sup>3</sup> STEL: 150 ppm STEL: 900 mg/m <sup>3</sup> Skin

Chemical name	Ontario TWA EV
Dipropylene glycol monomethyl ether 34590-94-8	TWA: 100 ppm STEL: 150 ppm Skin

2-(Dimethylamino)ethanol 108-01-0	TWA: 3 ppm TWA: 11 mg/m <sup>3</sup> STEL: 6 ppm STEL: 22 mg/m <sup>3</sup>
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Chemical name	Mexico OEL (TWA)
Dipropylene glycol monomethyl ether 34590-94-8	TWA/VLE-PPT: 100 ppm STEL/PPT-CT: 150 ppm

**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
<b>Odor</b>	No information available	<b>Odor Threshold</b>	No information available
<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>	
<b>pH</b>		No data available	
<b>Melting Point / Freezing Point</b>	No information available	No data available	
<b>Boiling Point / Boiling Range</b>	> 100 °C / 212 °F		
<b>Flash Point</b>	> 94 °C / > 201 °F	Setaflash closed cup	
<b>Evaporation rate</b>		No data available	
<b>Flammability Limit in Air</b>			

Upper flammability limit	No data available
Lower flammability limit	No data available
Vapor Pressure	No data available
Vapor Density	No data available
Specific Gravity	1.07
Water Solubility	No data available
Solubility in other solvents	No data available
Partition coefficient: n-octanol/water	No data available
Autoignition Temperature	No information available
Hyphen	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)	8.89

VOC by weight % (less water)	VOC by volume % (less water)	VOC lbs/gal (less water)	VOC grams/liter (less water)
15.64	No information available	1.39	166.61
Volatile by weight % (including Water)	Water by weight %		
58.57	51.52		

**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. Do not freeze.

**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**

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

Chemical name	Oral LD50
Dipropylene glycol monomethyl ether 34590-94-8	= 5.35 g/kg ( Rat )

2-(Dimethylamino)ethanol 108-01-0	= 1803 mg/kg ( Rat )
Additive	= 1470 mg/kg ( Rat )
2,4,7,9-Tetramethyl-5-decyne-4,7-diol 126-86-3	> 500 mg/kg ( Rat )
Isononylphenol, ethoxylated 37205-87-1	= 2590 mg/kg ( Rat )

Chemical name	Dermal LD50
Dipropylene glycol monomethyl ether 34590-94-8	= 9500 mg/kg ( Rabbit )
2-(Dimethylamino)ethanol 108-01-0	= 1220 mg/kg ( Rabbit )
Additive	> 2000 mg/kg ( Rat )
2,4,7,9-Tetramethyl-5-decyne-4,7-diol 126-86-3	> 1000 mg/kg ( Rabbit )
Isononylphenol, ethoxylated 37205-87-1	= 2830 mg/kg ( Rabbit )

Chemical name	Inhalation LC50
2-(Dimethylamino)ethanol 108-01-0	= 1641 ppm ( Rat ) 4 h
Additive	= 0.67 mg/L ( Rat ) 4 h = 0.99 mg/L ( Rat ) 4 h = 0.63 mg/L ( Rat ) 4 h
2,4,7,9-Tetramethyl-5-decyne-4,7-diol 126-86-3	> 20 mg/L ( Rat ) 1 h

#### 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).

**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. May cause an allergic skin reaction. (based on components).

**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** 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

ATEmix (oral)	125,982.60
ATEmix (dermal)	85,246.10
ATEmix (inhalation-gas)	99,999.00
ATEmix (inhalation-dust/mist)	64.40
ATEmix (inhalation-vapor)	434.60

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

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

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

Chemical name	Algae/aquatic plants
2-(Dimethylamino)ethanol 108-01-0	72h EC50 Desmodesmus subspicatus: = 35 mg/L

Chemical name	Fish
Dipropylene glycol monomethyl ether 34590-94-8	96h LC50 Pimephales promelas: > 10000 mg/L (static)
2-(Dimethylamino)ethanol 108-01-0	96h LC50 Pimephales promelas: = 81 mg/L (static)
Nonylphenol, branched, ethoxylated 68412-54-4	96h LC50 Pimephales promelas: = 0.323 mg/L (flow-through)
Additive	96h LC50 Lepomis macrochirus: 0.14 - 0.32 mg/L (flow-through) 96h LC50 Oncorhynchus mykiss: 0.049 - 0.079 mg/L (flow-through) 96h LC50 Oncorhynchus mykiss: 0.05 - 0.089 mg/L 96h LC50 Pimephales promelas: 0.18 - 0.23 mg/L (flow-through)

Chemical name	Crustacea
Dipropylene glycol monomethyl ether 34590-94-8	48h LC50 Daphnia magna: = 1919 mg/L
2-(Dimethylamino)ethanol 108-01-0	48h EC50 Daphnia magna: = 98.77 mg/L

### Persistence and Degradability

No information available.

### Bioaccumulation

Chemical name	Partition coefficient
Dipropylene glycol monomethyl ether 34590-94-8	-0.064
2-(Dimethylamino)ethanol 108-01-0	-0.55

## 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

Exception: In the US and Canada except when all or part of the transportation is by vessel, containers 119 gallons/ 450 Liters and less are not regulated [see 49CFR 171.4 (c)(1)]

49CFR 171.4 (c)(2) applies only to marine pollutants. These items may be shipped as "not regulated" and no marine pollutant mark is required if in quantities of 5L or less (per inner packaging) for liquids or 5KG or less (per inner packaging) for solids and the packaging used meets the defined standards [see 49CFR 173.24 for general packaging requirements].

**ICAO / IATA / IMDG / IMO**

Not Regulated

ICAO/IATA Special Provision A197 applies only to environmentally hazardous substances, UN3077 and UN3082. These items may be shipped as "not regulated" if in quantities of 5L or less (per inner packaging) for liquids or 5KG or less (per inner packaging) for solids and the packaging used meets the defined standards.

IMDG code 2.10.2.7 applies only to marine pollutants. These items may be shipped as "not regulated" and no marine pollutant mark is required if in quantities of 5L or less (per inner packaging) for liquids or 5KG or less (per inner packaging) for solids and the packaging used meets the defined standards.

## 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).

**U.S. Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

**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:.

Chemical name	CAS No.	Weight-%
Ethylene glycol	107-21-1	0.1 - < 1
Diethylene glycol monobutyl ether	112-34-5	0.1 - < 1

**US State Regulations**

Chemical name	Massachusetts
Dipropylene glycol monomethyl ether 34590-94-8	X
2-(Dimethylamino)ethanol 108-01-0	X
Chemical name	Minnesota Right To Know



Dipropylene glycol monomethyl ether 34590-94-8	X
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Chemical name	New Jersey
Dipropylene glycol monomethyl ether 34590-94-8	X
2-(Dimethylamino)ethanol 108-01-0	X
Additive	X

Chemical name	Pennsylvania
Dipropylene glycol monomethyl ether 34590-94-8	X
2-(Dimethylamino)ethanol 108-01-0	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
Ethylene glycol	Developmental

**Canada**

Chemical name	NPRI - National Pollutant Release Inventory
Dipropylene glycol monomethyl ether 34590-94-8	Part 5 Substance - Volatile Organic Compounds with Additional Reporting Requirements Part 4 Substance - Criteria Air Contaminants
2-(Dimethylamino)ethanol 108-01-0	Part 4 Substance - Criteria Air Contaminants
Nonylphenol, branched, ethoxylated 68412-54-4	Part 1, Group B Substance
Isononylphenol, ethoxylated 37205-87-1	Part 1, Group B Substance

## 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

**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**