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Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product code **PAN800CF**
Product name **PAN 800 Fluid**
Product category **Ink Product**

1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended use Printing operations

1.3 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
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Tel: +001-800-677-4657	Tel: +44 161 442 2111
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www.nazdar.com	

For further information, please contact

Contact person Regulatory Compliance: Tel: +001-913-422-1888 (ext 2305)
E-mail address regcomp@nazdar.com

1.4 Emergency telephone number

USA: Chemtrec: +001-800-424-9300
Outside USA: Chemtrec: +001-703-527-3887
24 Hour Emergency Phone Number

Section 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

According to Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

2.2 Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

Signal Word

None

EUH208 - May produce an allergic reaction

EUH210 - Safety data sheet available on request

2.3 Other Hazards

General Hazards No information available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Component	EC No.	CAS-No	Weight %	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH No.	Note
Glycerol	200-289-5	56-81-5	10 - 30	Not Classified	01-2119471987-18-xxxx	1
Diethylene glycol	203-872-2	111-46-6	5 - 10	Acute Tox. 4 (H302)	01-2119457857-21-xxxx	1
2-Pyrrolidinone	210-483-1	616-45-5	5 - 10	Eye Irrit. 2 (H319)	01-2119475471-37-xxxx	
Triethylene glycol monobutyl ether	205-592-6	143-22-6	1 - 5	Eye Dam. 1 (H318)	01-2119475107-38-xxxx	
1,2-Benzisothiazolin-3-one	220-120-9	2634-33-5	< 0.1	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Aquatic Acute 1 (H400)	No data available	

Note

REACH No: Registration number(s) may not be provided because substance(s) are exempted or not yet required to be registered under REACH
1. Substance with a Community workplace exposure limit

Full text of H- and EUH-phrases: see section 16

Section 4: FIRST AID MEASURES**4.1 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. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

None under normal use conditions.

4.3 Indication of any immediate medical attention and special treatment needed**Notes to Physician**

Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES**5.1 Extinguishing media****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.

5.2 Special hazards arising from the substance or mixture

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

5.3 Advice 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.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

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.

6.2 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.

6.3 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.

6.4 Reference to other sections

See Section 12 for more information.

Section 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Use personal protective equipment as required. Do not eat, drink or smoke when using this product. Ensure adequate ventilation.

7.2 Conditions for safe storage, including any incompatibilities

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.

7.3 Specific end use(s)

Exposure Scenario	No information available.
Risk Management Methods (RMM)	The information required is contained in this Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters**Exposure limits**

Component	The United Kingdom
Glycerol 56-81-5	STEL: 30 mg/m ³ mist TWA: 10 mg/m ³ mist
Diethylene glycol 111-46-6	STEL: 69 ppm STEL: 303 mg/m ³ TWA: 23 ppm TWA: 101 mg/m ³
Component	France
Glycerol 56-81-5	TWA/VME: 10 mg/m ³ aerosol
Component	Germany
Glycerol 56-81-5	TWA/MAK: 200 mg/m ³ inhalable fraction Peak: 400 mg/m ³ inhalable fraction
Diethylene glycol 111-46-6	TWA/MAK: 10 ppm TWA/MAK: 44 mg/m ³ Peak: 40 ppm Peak: 176 mg/m ³ TWA/AGW: 10 ppm TWA/AGW: 44 mg/m ³
Component	Spain
Glycerol 56-81-5	TWA/VLA-ED: 10 mg/m ³ mist
Component	Portugal
Glycerol 56-81-5	TWA/VLE-MP: 10 mg/m ³ mist

Component	Finland
Glycerol 56-81-5	TWA: 20 mg/m ³
Component	Denmark
Diethylene glycol 111-46-6	TWA: 2.5 ppm TWA: 11 mg/m ³
Component	Austria
Diethylene glycol 111-46-6	STEL/KZW: 40 ppm STEL/KZW: 176 mg/m ³ TWA/TMW: 10 ppm TWA/TMW: 44 mg/m ³
Component	Switzerland
Glycerol 56-81-5	STEL/KZW: 100 mg/m ³ inhalable dust TWA/MAK: 50 mg/m ³ inhalable dust
Diethylene glycol 111-46-6	STEL/KZW: 40 ppm STEL/KZW: 176 mg/m ³ TWA/MAK: 10 ppm TWA/MAK: 44 mg/m ³
Component	Poland
Glycerol 56-81-5	TWA/NDS: 10 mg/m ³ inhalable fraction
Diethylene glycol 111-46-6	TWA/NDS: 10 mg/m ³ inhalable fraction
Component	Ireland
Glycerol 56-81-5	TWA: 10 mg/m ³ mist STEL: 30 mg/m ³ mist calculated
Diethylene glycol 111-46-6	TWA: 23 ppm TWA: 100 mg/m ³ STEL: 69 ppm calculated STEL: 300 mg/m ³ calculated

Component	Australia TWA
Glycerol 56-81-5	TWA: 10 mg/m ³ inhalable dust, mist containing no asbestos and <1% crystalline silica
Diethylene glycol 111-46-6	TWA: 23 ppm TWA: 100 mg/m ³

Derived No Effect Level (DNEL)

Component	DNEL - Dermal (Workers)	DNEL - Inhalation (Workers)
Glycerol 56-81-5	No data found	56 mg/m ³ (Local long term)
Diethylene glycol 111-46-6	43 mg/kg (Systemic long term)	44 mg/m ³ (Systemic long term) 60 mg/m ³ (Local long term)
2-Pyrrolidinone 616-45-5	10 mg/kg (Systemic long term) 277 mg/kg (Systemic acute/short term)	57.8 mg/m ³ (Systemic long term)
Triethylene glycol monobutyl ether 143-22-6	208 mg/kg (Systemic long term)	195 mg/m ³ (Systemic long term)

Predicted No Effect Concentration (PNEC) No information available.

8.2 Exposure 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.

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.

Environmental exposure controls No information available.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical State	Liquid	Appearance	Colored
Odor	No information available	Odor Threshold	No information available

Property	Values	Remarks • Method
pH		No data available
Melting point/freezing point		No data available
Boiling point/Boiling Range	> 100 °C / 212 °F	
Flash Point	> 94 °C / > 201 °F	No data available
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	1.04	
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	

9.2 Other information

Softening Point No data available

Section 10: STABILITY AND REACTIVITY

10.1 Reactivity

No information available.

10.2 Chemical Stability

Stable under normal conditions.

10.3 Possibility of Hazardous Reactions

None under normal processing.

10.4 Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition. Do not freeze.

10.5 Incompatible materials

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

10.6 Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapors. Carbon dioxide (CO2). Carbon monoxide.

Section 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity

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.

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) 2,543.00
ATEmix (dermal) 34,713.00

Unknown Acute Toxicity

- 0 % of the mixture consists of ingredient(s) of unknown toxicity.
- 0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.
- 0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.
- 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).
- 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).
- 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Component	Oral LD50
Glycerol 56-81-5	= 12600 mg/kg (Rat)
Diethylene glycol 111-46-6	= 12565 mg/kg (Rat)
2-Pyrrolidinone 616-45-5	= 328 mg/kg (Rat)
Triethylene glycol monobutyl ether 143-22-6	= 5300 mg/kg (Rat)
1,2-Benzisothiazolin-3-one 2634-33-5	= 1020 mg/kg (Rat)

Component	LD50 Dermal
Glycerol 56-81-5	> 10 g/kg (Rabbit)
Diethylene glycol 111-46-6	= 11890 mg/kg (Rabbit)
Triethylene glycol monobutyl ether 143-22-6	> 2000 mg/kg (Rabbit)

Component	Inhalation LC50
Glycerol 56-81-5	> 570 mg/m ³ (Rat) 1 h

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

Section 12: ECOLOGICAL INFORMATION

12.1 Toxicity

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

Unknown Aquatic Toxicity

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

Component	Algae/aquatic plants
2-Pyrrolidinone 616-45-5	= 250: 72 h Desmodesmus subspicatus mg/L EC50 = 84: 96 h Desmodesmus subspicatus mg/L EC50
Triethylene glycol monobutyl ether 143-22-6	> 500: 72 h Desmodesmus subspicatus mg/L EC50

Component	Fish
Glycerol 56-81-5	51 - 57: 96 h Oncorhynchus mykiss mL/L LC50 static
Diethylene glycol 111-46-6	75200: 96 h Pimephales promelas mg/L LC50 flow-through
2-Pyrrolidinone 616-45-5	4600 - 10000: 96 h Brachydanio rerio mg/L LC50 static
Triethylene glycol monobutyl ether 143-22-6	2400: 96 h Pimephales promelas mg/L LC50 2400: 96 h Pimephales promelas mg/L LC50 static

Component	Crustacea
Diethylene glycol 111-46-6	84000: 48 h Daphnia magna mg/L EC50
Triethylene glycol monobutyl ether 143-22-6	500: 48 h Daphnia magna mg/L EC50

12.2 Persistence and degradability

No information available.

12.3 Bioaccumulative potential

No information available.

Component	Partition coefficient
Glycerol 56-81-5	-1.76
Diethylene glycol 111-46-6	-1.98
2-Pyrrolidinone 616-45-5	-0.71
Triethylene glycol monobutyl ether 143-22-6	0.51
1,2-Benzisothiazolin-3-one 2634-33-5	1.3

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

12.6 Other adverse effects.

No information available.

Section 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste from Residues / Unused Contain and dispose of waste according to local regulations.

Products**Contaminated Packaging**

Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14: TRANSPORT INFORMATION**ADR****14.2 Proper Shipping Name**

Not Regulated
Printing Ink Related Material

ICAO / IATA / IMDG / IMO**14.2 Proper Shipping Name**

Not Regulated
Printing Ink Related Material

Section 15: REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

European Union

International Inventories

For further information, please contact: Supplier (manufacturer/importer/downstream user/distributor)

15.2 Chemical Safety Assessment

No information available.

Section 16: OTHER INFORMATION**Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under sections 2 and 3**

H302 - Harmful if swallowed
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H319 - Causes serious eye irritation
H400 - Very toxic to aquatic life

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average)
STEL STEL (Short Term Exposure Limit)
Ceiling Maximum limit value

Revision Date Jan-09-2018

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

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