

Safety Data Sheet

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Version: A

SDS number: 10090844

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

1.1 Product identifier

Product code **10087653, 10087654**
 Product name **Liquid DOT #837**
 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

Glunz & Jensen A/S
 Selandia Park 1
 DK - 4100 Ringsted
 Denmark
 Tel: +45 5768 8181
 Fax: +45 5768 8340
 www.glunz-jensen.com

1.4 Emergency telephone number

USA: Chemtrec day or night: +1 800 424 9300
 GB: NATIONAL POISONS EMERGENCY day or night: +44 870 600 6266
 24 Hour Emergency Phone Number

Section 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

According to Regulation (EC) No 1272/2008

Reproductive toxicity	Category 1B - (H360)
Specific target organ toxicity (single exposure)	Category 3 - (H336)
Flammable liquids	Category 3 - (H226)

2.2 Label elements



Signal Word
 Danger

Hazard Statements

H336 - May cause drowsiness or dizziness
 H360D - May damage the unborn child
 H226 - Flammable liquid and vapor

Precautionary Statements - EU (§28, 1272/2008)

P201 - Obtain special instructions before use
 P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P308 + P313 - IF exposed or concerned: Get medical advice/attention
 P202 - Do not handle until all safety precautions have been read and understood
 P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

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
Propylene glycol monomethyl ether	203-539-1	107-98-2	60 - 100	Flam. Liq. 3 (H226) STOT SE 3 (H336)	No data available	1
2-Methoxy-1-propanol	216-455-5	1589-47-5	< 0.5	Skin Irrit. 2 (H315) Flam. Liq. 3 (H226) Repr. 1B (H360D) STOT SE 3 (H335) Eye Dam. 1 (H318)	No data available	1

Note

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.

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
Propylene glycol monomethyl ether 107-98-2	STEL: 150 ppm STEL: 560 mg/m ³ TWA: 100 ppm TWA: 375 mg/m ³ Skin
Component	France
Propylene glycol monomethyl ether 107-98-2	TWA/VME: 50 ppm (restrictive limit) TWA/VME: 188 mg/m ³ (restrictive limit) STEL/VLCT: 100 ppm (restrictive limit) STEL/VLCT: 375 mg/m ³ (restrictive limit) Skin
Component	Germany

Propylene glycol monomethyl ether 107-98-2	TWA/MAK: 100 ppm TWA/MAK: 370 mg/m ³ Peak: 200 ppm Peak: 740 mg/m ³ TWA/AGW: 100 ppm TWA/AGW: 370 mg/m ³
2-Methoxy-1-propanol 1589-47-5	TWA/MAK: 5 ppm TWA/MAK: 19 mg/m ³ Peak: 40 ppm Peak: 152 mg/m ³ TWA/AGW: 5 ppm TWA/AGW: 19 mg/m ³ Skin
Component	Spain
Propylene glycol monomethyl ether 107-98-2	STEL/VLA-EC: 150 ppm STEL/VLA-EC: 568 mg/m ³ TWA/VLA-ED: 100 ppm TWA/VLA-ED: 375 mg/m ³ Skin
2-Methoxy-1-propanol 1589-47-5	TWA/VLA-ED: 5 ppm TWA/VLA-ED: 19 mg/m ³
Component	Italy
Propylene glycol monomethyl ether 107-98-2	TWA: 100 ppm TWA: 375 mg/m ³ STEL: 150 ppm STEL: 568 mg/m ³ Skin
Component	Portugal
Propylene glycol monomethyl ether 107-98-2	STEL/VLE-CD: 150 ppm TWA/VLE-MP: 100 ppm
Component	The Netherlands
Propylene glycol monomethyl ether 107-98-2	STEL: 563 mg/m ³ TWA: 375 mg/m ³ Skin
Component	Finland
Propylene glycol monomethyl ether 107-98-2	TWA: 100 ppm TWA: 370 mg/m ³ STEL: 150 ppm STEL: 560 mg/m ³ Skin
Component	Denmark
Propylene glycol monomethyl ether 107-98-2	TWA: 50 ppm TWA: 185 mg/m ³
2-Methoxy-1-propanol 1589-47-5	TWA: 20 ppm TWA: 75 mg/m ³
Component	Austria
Propylene glycol monomethyl ether 107-98-2	STEL/KZW: 50 ppm STEL/KZW: 187 mg/m ³ TWA/TMW: 50 ppm TWA/TMW: 187 mg/m ³ Ceiling: 50 ppm Ceiling: 187 mg/m ³ Skin
2-Methoxy-1-propanol 1589-47-5	STEL/KZW: 80 ppm STEL/KZW: 300 mg/m ³ TWA/TMW: 20 ppm TWA/TMW: 75 mg/m ³ Skin
Component	Switzerland
Propylene glycol monomethyl ether	STEL/KZW: 200 ppm

107-98-2	STEL/KZW: 720 mg/m ³ TWA/MAK: 100 ppm TWA/MAK: 360 mg/m ³
2-Methoxy-1-propanol 1589-47-5	STEL/KZW: 40 ppm STEL/KZW: 152 mg/m ³ TWA/MAK: 5 ppm TWA/MAK: 19 mg/m ³ Skin
Component	Poland
Propylene glycol monomethyl ether 107-98-2	NDSch: 360 mg/m ³ TWA/ND: 180 mg/m ³
Component	Norway
Propylene glycol monomethyl ether 107-98-2	TWA: 50 ppm TWA: 180 mg/m ³ Skin
2-Methoxy-1-propanol 1589-47-5	TWA: 20 ppm TWA: 75 mg/m ³ Skin
Component	Ireland
Propylene glycol monomethyl ether 107-98-2	TWA: 100 ppm TWA: 375 mg/m ³ STEL: 150 ppm STEL: 568 mg/m ³
Component	Australia TWA
Propylene glycol monomethyl ether 107-98-2	TWA: 100 ppm TWA: 369 mg/m ³
Component	Australia STEL
Propylene glycol monomethyl ether 107-98-2	STEL: 150 ppm STEL: 553 mg/m ³

Derived No Effect Level (DNEL) No information available.
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	No information available	Appearance	Colored
Odor	No information available	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	32 °C / 89 °F	Tag closed cup
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		
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
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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.

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	There is no data for this product.
Eye Contact	There is no data for this product.
Skin Contact	There is no data for this product.
Ingestion	There is no data for this product.

Unknown Acute Toxicity 90.14 % 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) 5,817.00 mg/kg
ATEmix (dermal) 14,543.00 mg/kg
ATEmix (inhalation-dust/mist) 61.10 mg/L

Unknown Acute Toxicity

90.14 % of the mixture consists of ingredient(s) of unknown toxicity.
 0.75 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.
 0.75 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.
 90.14 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).
 90.14 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).
 0.75 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Component	Oral LD50
Propylene glycol monomethyl ether 107-98-2	5200 mg/kg (Rat)

Component	LD50 Dermal
Propylene glycol monomethyl ether 107-98-2	13000 mg/kg (Rabbit)

Component	Inhalation LC50
Propylene glycol monomethyl ether 107-98-2	54.6 mg/L (Rat) 4 h >24 mg/L (Rat) 1 h

Skin corrosion/irritation There is no data for this product.
Eye damage/irritation There is no data for this product.
Sensitisation There is no data for this product.
Mutagenic Effects There is no data for this product.
Carcinogenic effects There is no data for this product.
Reproductive Effects There is no data for this product.

Component	CMR, categories 1 and 2
2-Methoxy-1-propanol 1589-47-5	Reproductive Toxicity 1B

STOT - single exposure There is no data for this product.
STOT - repeated exposure There is no data for this product.
Aspiration hazard There is no data for this product.

Section 12: ECOLOGICAL INFORMATION

12.1 Toxicity

None known

Unknown Aquatic Toxicity

0.75 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Component	Fish
Propylene glycol monomethyl ether 107-98-2	96h LC50 Leuciscus idus: 4600 - 10000 mg/L [static] 96h LC50 Pimephales promelas: 20.8 g/L [static]

Component	Crustacea
Propylene glycol monomethyl ether 107-98-2	48h EC50 Daphnia magna: 23300 mg/L

12.2 Persistence and degradability

No information available.

12.3 Bioaccumulative potential

No information available.

Component	Partition coefficient
Propylene glycol monomethyl ether 107-98-2	-0.437

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 Products 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.

Section 14: TRANSPORT INFORMATION

ADR Not determined

ICAO / IATA / IMDG / IMO Not determined

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

- H226 - Flammable liquid and vapor
- H336 - May cause drowsiness or dizziness
- H315 - Causes skin irritation
- H360D - May damage the unborn child
- H335 - May cause respiratory irritation

H318 - Causes serious eye damage

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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

Revision Date Aug-10-2016

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