GLUNZ & JENSEN

Safety Data Sheet

Revision date: Nov. 1st, 2020
Version: E
SDS number: 10075809

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

1.1 Product identifier:
Product Name: LIQUID DOT 371
Product Code: 29846, 39111, 39113

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:
Manufacturer: Glunz & Jensen A/S
Lindholm Havnevej 29
DK - 5800 Nyborg
Denmark
Phone: +45 5768 8181
Fax: +45 5768 8340

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

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 systemic toxicity (single exposure):	Category 3 - H336
Physical hazards:	Flammable liquids Category 3 - H226

Classification according to EU Directives 67/548/EEC or 1999/45/EC:
For the full text of the R-phrases mentioned in this Section, see Section 16.

R-code(s): R10 - R67.

2.2 Label elements

Signal word: **Danger**
Hazard Statements:
H336 - May cause drowsiness or dizziness
H360 - May damage fertility or the unborn child
H226 - Flammable liquid and vapor

Precautionary Statements - EU (§28, 1272/2008):
P202 - Do not handle until all safety precautions have been read and understood
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P308 + P313 - IF exposed or concerned: Get medical advice/attention
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
P235 - Keep cool
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

2.3 Other hazards

No information available.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	EC No	CAS-No	Weight %	Classification	GHS Classification	REACH No
Propylene glycol monomethyl ether	203-539-1	107-98-2	60 - 100	R10/67	Flam. Liq. 3 - (H226) STOT SE 3 - (H336)	01-2119457435-35-xxxx
Diacetone alcohol	204-626-7	123-42-2	1 - 5	Xi; R36	Eye Irrit. 2 - H319	01-2119473975-21-xxxx
2-Methoxy-1-propanol	216-455-5	1589-47-5	< 0.5	R10 Xi;R37/38-41 Repr.Cat.2; R61	Skin Irrit. 2 - (H315) Flam. Liq. 3 - (H226) Repr. 1B - (H360D) STOT SE 3 - (H335) Eye Dam. 1 - (H318)	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

For the full text of the R-phrases mentioned in this Section, see Section 16.

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 immediately if irritation develops and persists.

Skin contact:
Wash off immediately with soap and plenty of water. Use a mild soap if available. Rinse immediately with plenty of water for at least 15 minutes. Remove contaminated clothing. If irritation develops, get medical attention.

Inhalation:
If breathed in, move person into fresh air. 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.

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.

Extinguishing media which shall not be used for safety reasons:
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.

Special protective equipment for fire-fighters:
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 MEASURE

6.1 Personal precautions, protective equipment and emergency procedures
Remove all sources of ignition. Ventilate the area. Avoid breathing dust or vapor. Avoid contact with skin, eyes and clothing. 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 materials 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 additional information.

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 uses

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

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1Control parameters

Component	European Union	The United Kingdom	France	Spain	Germany
Propylene glycol monomethyl ether		STEL: 150 ppm STEL: 560 mg/m³ TWA: 100 ppm TWA: 375 mg/m³ Skin	TWA/VME: 50 ppm (restrictive limit) TWA/VME: 188 mg/m³ (restrictive limit) STEL/VLCT: 100 ppm (restrictive limit) STEL/VLCT: 375 mg/m³ (restrictive limit) Skin	STEL/VLA-EC: 150 ppm STEL/VLA-EC: 568 mg/m³ TWA/VLA-ED: 100 ppm TWA/VLA-ED: 375 mg/m³ Skin	TWA/MAK: 100 ppm TWA/MAK: 370 mg/m³ Peak: 200 ppm Peak: 740 mg/m³ TWA/AGW: 100 ppm TWA/AGW: 370 mg/m³
Diacetone alcohol		STEL: 75 ppm STEL: 362 mg/m³ TWA: 50 ppm TWA: 241 mg/m³	TWA/VME: 50 ppm TWA/VME: 240 mg/m³	TWA/VLA-ED: 50 ppm TWA/VLA-ED: 241 mg/m³	TWA/MAK: 20 ppm TWA/MAK: 96 mg/m³ Peak: 40 ppm Peak: 192 mg/m³ TWA/AGW: 20 ppm TWA/AGW: 96 mg/m³ Skin
2-Methoxy-1-propanol 1589-47-5				TWA/VLA-ED: 5 ppm TWA/VLA-ED: 19 mg/m³	TWA/MAK: 5 ppm TWA/MAK: 19 mg/m³ TWA/AGW: 5 ppm TWA/AGW: 19 mg/m³ Peak: 10 ppm Peak: 38 mg/m³ Skin

Component	Italy	Portugal	The Netherlands	Finland	Ireland
Propylene glycol monomethyl ether	TWA: 100 ppm TWA: 375 mg/m³ STEL: 150 ppm STEL: 568 mg/m³ Skin	STEL/VLE-CD: 150 ppm TWA/VLE-MP: 100 ppm	STEL: 563 mg/m³ TWA: 375 mg/m³ Skin	TWA: 100 ppm TWA: 370 mg/m³ STEL: 150 ppm STEL: 560 mg/m³ Skin	TWA: 100 ppm TWA: 375 mg/m³ STEL: 150 ppm STEL: 568 mg/m³
Diacetone alcohol		TWA/VLE-MP: 50 ppm		TWA: 50 ppm TWA: 240 mg/m³ STEL: 75 ppm STEL: 360 mg/m³	TWA: 50 ppm TWA: 240 mg/m³ STEL: 75 ppm STEL: 360 mg/m³

Component	Austria	Switzerland	Poland	Norway	Denmark
Propylene glycol monomethyl ether	STEL/KZW: 50 ppm STEL/KZW: 187mg/m³ TWA/TMW: 50 ppm TWA/TMW: 187 mg/m³ Ceiling: 50 ppm Ceiling: 187 mg/m³ Skin	STEL/KZW: 200 ppm STEL/KZW: 720 mg/m³ TWA/MAK: 100 ppm TWA/MAK: 360 mg/m³	NDSCh: 360 mg/m³ TWA/NDS: 180 mg/m³	TWA: 50 ppm TWA: 180 mg/m³ Skin	TWA: 50 ppm TWA: 185 mg/m³ Skin
Diacetone alcohol	TWA/TMW: 50 ppm TWA/TMW: 240 mg/m³ Skin	STEL/KZW: 40 ppm STEL/KZW: 192 mg/m³ TWA/MAK: 20 ppm TWA/MAK: 96 mg/m³ Skin	TWA/NDS: 240 mg/m³	TWA: 25 ppm TWA: 120 mg/m³	TWA: 50 ppm TWA: 240 mg/m³
2-Methoxy-1-propanol 1589-47-5	STEL/KZW: 80 ppm STEL/KZW: 300 mg/m³ TWA/TMW: 20 ppm TWA/TMW: 75 mg/m³ Skin	TWA/MAK: 5 ppm TWA/MAK: 19 mg/m³ STEL/KZW: 40 ppm STEL/KZW: 152 mg/m³ Skin		TWA: 20 ppm TWA: 75 mg/m³ Skin	TWA: 20 ppm TWA: 75 mg/m³

Component	Australia TWA	Australia STEL
Propylene glycol monomethyl ether	TWA: 100 ppm TWA: 369 mg/m³	STEL: 150 ppm STEL: 553 mg/m³
Diacetone alcohol	TWA: 50 ppm TWA: 238 mg/m³	

Derived No Effect Level (DNEL):

Component	DNEL - Dermal (Workers)	DNEL - Inhalation (Workers)
Propylene glycol monomethyl ether	183 mg/kg (Systemic long term)	369 mg/m³ (Systemic long term) 553.5 mg/m³ (Systemic acute/short term) 553.5 mg/m³ (Local acute/short term)
Diacetone alcohol	840 mg/kg (Systemic long term)	59.2 mg/m³ (Systemic long term) 240 mg/m³ (Local acute/short 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.

Eye Protection:
Ensure that eyewash stations and safety showers are close to the workstation location. Avoid contact with eyes. Safety glasses with side-shields. Goggles. Face-shield.

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.

Enviromental exposure controls: No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state:	Liquid.
Appearance:	Coloured, liquid
Odour:	Characteristic
Odour treshold:	No information available
ph:	No data available
Melting point/Range:	No data available
Freezing point/Range:	No data available
Boiling point/Range:	>149 °C/ 300 °F
Flash point:	32 °C/ 89 °F Tag closed cup
Flammability (solid, gas):	No data available
Flammability Limits in air:	
Upper:	No data available
Lower:	No data available
Vapour pressure:	No data available
Vapour density:	Heavier than air.
Relative density:	No data available
Solubility:	No data available
Partition coefficient: n-octanol/water:	No data available
Autoignition Temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	No data available
Explosive Properties:	No information available.
Oxidizing Properties:	No information available.

9.2 Other information

Specific Gravity:	0.93

10. STABILITY AND REACTIVITY

10.1 Reactivity
No data available.

10.2 Chemical Stability
Stable under normal conditions.

10.3 Possibility of Hazardous reaction
None under normal proccesing.

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 agents.

10.6 Hazardous decomposition products
Thermal decomposition can lead to release of irritating gases and vapours. Carbon dioxide (CO2). Carbon monoxide.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:

Component	LD 50 Oral	LD 50 Dermal	LD 50 Inhalation
Propylene glycol monomethyl ether	5000 mg/kg (Rat)	13000 mg/kg (Rabbit)	7559 ppm (Rat) 6 h
Diacetone alcohol	4 g/kg (Rat)	13630 mg/kg (Rabbit)	>7.23 g/m³ (Rat) 8 h
2-Methoxy-1-propanol	= 5710 mg/kg (Rat)	= 5660 mg/kg (Rabbit)	

This product contains one or more substances which are classified in the EU as carcinogenic, mutagenic and/or reprotoxic:

Component	Classification
2-Methoxy-1-propanol	Reproductive Toxicity 1B

Irritation: No information available
Corrosivity: No information available
Sensitisation: No information available
Mutagenic effects: No information available
Carcinogenic effects: No information available
Reproductive effects: No information available
Developmental hazards: No information available
STOT - single exposure: No information available
STOT - repeated exposure: No information available
Aspiration hazard: No information available

12. ECOLOGICAL INFORMATION

12.1 Toxicity
We have no quantitative data concerning the ecological effects of this product. Environmental fate information is derived from consideration of the properties of the ingredients.

Component	Algae	Fish	Water Flea
Propylene glycol monomethyl ether		96h LC50 Pimephales promelas: 20.8 g/L [static]	48h EC50 Daphnia magna: 23300 mg/L
Diacetone alcohol		96h LC50 Lepomis macrochirus: 420 mg/L 96h LC50 Lepomis macrochirus: 420 mg/L [static]	

12.2 Persistence and degradability
No information available.

12.3 Bioaccumulative pootential:

Component	log Pow
Propylene glycol monomethyl ether	-0.437
Diacetone alcohol	1.03

12.4 Mobility in soil
No information available.

12.5 Results of PBT and vPvB assesment
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.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste from Residues/ Unused Products:
Dispose of in accordance with 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.

ADR
14.1 UN/ID no. UN1210
14.2 Proper Shipping Name Printing Ink
14.3 Hazard Class 3
14.4 Packing Group III

ICAO / IATA / IMDG / IMO
14.1 UN/ID no. UN1210
14.2 Proper Shipping Name Printing Ink
14.3 Hazard Class 3
14.4 Packing Group III

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.

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3:

H226 - Flammable liquid and vapor
H315 - Causes skin irritation
H318 - Causes serious eye damage
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness
H360D - May damage the unborn child

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION
TWA - (time-weighted average)
STEL - (Short Term Exposure Limit)
Ceiling - Maximum limit value

Revison Date:	01.10.2020
Revison Note:	new SDS format

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