GLUNZ & JENSEN

Material Safety Data Sheet

Revision date: May 20th, 2015
Version: C
MSDS 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, 39124

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
Selandia Park 1
DK - 4100 Ringsted
Denmark
Phone: +45 5768 8181
Fax: +45 5768 8340

1.4 Emergency phone number: For Chemical Emergency Spill Leak Fire Exposure or Accident Call NATIONAL POISONS EMERGENCY day or night: +44 870 600 6266

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:
According to Regulation (EC) No 1272/2008:

Reproductive Toxicity:		Category 1B
Specific target organ systemic toxicity (single exposure):		Category 3
Physical hazards:	Flammable liquids:	Category 3

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.

2.2Label elements:

Signal word: Danger

Hazard Statements:
H335 - May cause respiratory irritation
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)
P261 - Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray
P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing
P312 - Call a POISON CENTER or doctor/ physician if you feel unwell
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P233 - Keep container tightly closed

2.3 Other hazards:
No information available.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	EC No	CAS-No	Content	Classification (EC 1272/2008)	Classification (67/548)
Propylene glycol monomethyl ether	203-539-1	107-98-2	90 - 100%	Flam. Liq. 3 - (H226) STOT SE 3 - (H336)	R10/67
Diacetone alcohol	204-626-7	123-42-2	1 - 5%	Eye Irrit. 2 - H319	Xi; R36
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)	R10 Xi;R37/38-41 Repr.Cat.2; R61

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.

Inhalation:
If breathed in, move person into fresh air. If breathing is irregular or stopped, administer artificial respiration. Get medical attention immediately.

Ingestion:
If swallowed, DO NOT induce vomiting. Call a physician or Poison Control Centre immediately. Never give anything by mouth to an unconscious person.

Skin 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.

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.

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:
Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases:
Burning produces obnoxious and toxic fumes.

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.

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. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials for containment and cleaning up:
Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) andn transfer to a container for disposal according to local / national regulations (see section 13). Do not use sparking tools.

6.4 Reference to other sections:
See Section 12 for additional information.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling:

Handling:

Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Remove and wash contaminated clothing before re-use. Discard contaminated shoes. When using do not smoke. Take notice of the directions of use on the label. Do not take internally. Harmful or fatal if swallowed.

Hygiene measures:

Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities:

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep out of the reach of children. Keep away from heat and sources of ignition.

7.3 Specific end uses:

Exposure Scenario: No information available.
Other Guidelines: No information available.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters:
Exposure limits:

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

Component	Italy	Portugal	The Netherlands	Finland	Denmark
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: 50 ppm TWA: 185 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

Component	Austria	Switzerland	Poland	Norway	Ireland
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: 100 ppm TWA: 375 mg/m³ STEL: 150 ppm STEL: 568 mg/m³
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 STEL: 75 ppm STEL: 360 mg/m³

Derived No Effect Level (DNEL):
No information available.

Predicted No Effect Concentration (PNEC):
No information available.

8.2 Exposure controls:
Engineering measures:
Use ventilation adequate to keep exposures below recommended exposure limits. In case of insufficient ventilation, wear suitable respiratory equipment.

Personal protective equipment:

Respiratory protection:
Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust). Respirator with a vapour filter.

Hand protection:
Nitrile rubber. Neoprene gloves.

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 protective gloves/clothing. Solvent-resistant apron and boots.

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 information available.
Melting point/Range:	No information available.
Freezing point/Range:	No information available.
Boiling point/Range:	>149 °C/ 300 °F
Flash point:	32 °C/ 89 °F Tag closed cup
Flammability (solid, gas):	No information available.
Flammability Limits in air:	
Upper:	No information available.
Lower:	No information available.
Vapour pressure:	No information available.
Vapour density:	Heavier than air.
Relative density:	No information available.
Solubility:	No information available.
Partition coefficient: n-octanol/water:	No information available.
Autoignition Temperature:	No information available.
Decomposition temperature:	No information available.
Viscosity:	No information 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:

Heat, flames and sparks.

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	5200 mg/kg (Rat)	13000 mg/kg (Rabbit)	54.6 mg/L (Rat) 4 h >24 mg/L (Rat) 1 h
Diacetone alcohol	4 g/kg (Rat)	13500 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 Leuciscus idus: 4600 - 10000 mg/L [static] 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]	24h EC50 Daphnia magna: 8750 mg/L

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:
No information available.

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

IMDG/IMO:
UN1210, Printing Ink, 3, III

RID:
UN1210, Printing Ink, 3, III

ADR:
UN1210, Printing Ink, 3, III

ICAO:
UN1210, Printing Ink, 3, III

IATA:
UN1210, Printing Ink, 3, III

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:
International Inventories:
Listed on TSCA. For further information, please contact: Manufacturer, importer, supplier.

Regulation (EC) No. 1907/2006 (REACH), Article 57:
This product does not contain substances of very high concern (Regulation (EC) No. 1907/2006 (REACH), Article 57).

15.2 Chemical Safety Assessment:
No information available.

16. OTHER INFORMATION

Text of R phrases mentioned in Section 3:
R10 - Flammable
R67 - Vapours may cause drowsiness and dizziness
R36 - Irritating to eyes
R61 - May cause harm to the unborn child
R41 - Risk of serious damage to eyes
R37/38 - Irritating to respiratory system and skin

Full text of H-Statements referred to under sections 2 and 3:
H226 - Flammable liquid and vapor
H336 - May cause drowsiness or dizziness
H319 - Causes serious eye irritation
H315 - Causes skin irritation
H360D - May damage the unborn child
H335 - May cause respiratory irritation
H318 - Causes serious eye damage

Key literature references and sources for data:
www.ChemADVISOR.com

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Disclaimer:

The advice given in this document is based on the present state of our knowledge and that of our supplier. We provide it in good faith, but cannot accept any liability for the advice given. The data is intended to describe the product from the point of view of safety requirements and should not therefore be construed as guaranteeing specific properties of the product. Glunz & Jensen A/S shall not be held liable for any damage resulting from handling or from contact with this product.