Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 01/25/2011 Revision date: 04/04/2019 Supersedes: 06/27/2018 Version: 6.0



SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : VERSAPASS® DG Magenta

Applies to: QUICKLABEL & TROJAN INKS PN: 14808102, 14808302, 30010002, 30010011, 30010018 & ATM10003578

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Inkjet printing

Restrictions on use : No additional information available

1.3. Supplier

Memjet Ltd.

61-62 Fitzwilliam Lane

Dublin, Ireland

San Diego, CA 92127 - USA

T +353 1 678 0420 - F +1-858-798-3044 T 858 673 3300 msds@memjet.com - www.memjet.com www.memjet.com

1.4. Emergency telephone number

Emergency number : For Hazardous Materials Incidents (spill, leak, fire, exposure, or accident) call: CHEMTREC:

U.S. 1-800-424-9300 International: +1-703-527-3887

Memjet

CHEMTREC (24 HOURS)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Eye Irrit. 2 H319 Causes serious eye irritation

Repr. 1B H360 May damage fertility or the unborn child

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects

Full text of hazard classes and H-statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :





Signal word (GHS US) : Danger

Hazard statements (GHS US) : H319 - Causes serious eye irritation

H360 - May damage fertility or the unborn child

H373 - May cause damage to organs through prolonged or repeated exposure

H412 - Harmful to aquatic life with long lasting effects

Precautionary statements (GHS US) : P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P260 - Do not breathe mist, spray, vapors.

P264 - Wash hands, forearms and face thoroughly after handling.

P273 - Avoid release to the environment.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing

P308+P313 - If exposed or concerned: Get medical advice/attention.

P314 - Get medical advice/attention if you feel unwell.

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

P405 - Store locked up.

P501 - Dispose of contents/container to hazardous or special waste collection point, in

accordance with local, regional, national and/or international regulation

2.3. Other hazards which do not result in classification

No additional information available

04/04/2019 EN (English US) SDS ID: memjet_1300005 Page 1

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

2.4. Unknown acute toxicity (GHS US)

3% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)

3% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)

3% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Water	(CAS-No.) 7732-18-5	70 - 75	Not classified
Ethylene glycol	(CAS-No.) 107-21-1	9 - 10	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
2-pyrrolidone	(CAS-No.) 616-45-5	7 - 9	Eye Irrit. 2A, H319 Repr. 1B, H360
Glycerol	(CAS-No.) 56-81-5	3 - 5	Not classified
Proprietary magenta dye	(CAS-No.) not assigned	3 - 5	Eye Irrit. 2A, H319 Aquatic Chronic 2, H411
2,4,7,9-Tetramethyl-5-decyne-4,7-diol ethoxylate	(CAS-No.) 9014-85-1	0.5 - 1	Eye Dam. 1, H318 Aquatic Chronic 3, H412

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position

comfortable for breathing.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed

by warm water rinse.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting unless directed to do so by medical personnel.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects : May cause damage to organs (kidneys) (through prolonged or repeated exposure).

Symptoms/effects after inhalation : Inhalation may cause: irritation, cough, shortness of breath.

Symptoms/effects after skin contact : May cause an allergic skin reaction.

Symptoms/effects after eye contact : Causes serious eye irritation.

Symptoms/effects after ingestion : Not expected to present a significant ingestion hazard under anticipated conditions of normal

use.

4.3. Immediate medical attention and special treatment, if necessary

Avoid all eye and skin contact and do not breathe vapor and mist.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : carbon dioxide (CO2), powder, alcohol-resistant foam, hazy water.

Unsuitable extinguishing media : None known.

5.2. Specific hazards arising from the chemical

Fire hazard : Not expected to be a fire/explosion hazard under normal conditions of use.

Explosion hazard : Product is not explosive.

Reactivity : No dangerous reactions known.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Exercise caution when fighting any chemical fire.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

Wear fire/flame resistant/retardant clothing. Use self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid all eye and skin contact and do not breathe vapor and mist.

04/04/2019 EN (English US) SDS ID: memjet_1300005 2/9

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

6.1.1. For non-emergency personnel

Protective equipment : Avoid contact with skin and eyes. Wear suitable gloves: butyl rubber gloves and natural

rubber gloves.

Emergency procedures : Evacuate unnecessary personnel. Stop leak, if possible without risk.

6.1.2. For emergency responders

Protective equipment : Avoid all eye and skin contact and do not breathe vapor and mist. Wear suitable protective

clothing and gloves: butyl rubber and rubber. Use eye protection designed to protect against

liquid splashes.

Emergency procedures : Stop leak if safe to do so.

6.2. Environmental precautions

Do not discharge into drains or the environment.

6.3. Methods and material for containment and cleaning up

No additional information available

6.4. Reference to other sections

Section 7: safe handling. Section 8: personal protective equipment. Section 13: disposal information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Hygiene measures : Wash hands thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in original container. Store away from heat.

Incompatible products : Oxidizing agent.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

2-pyrrolidone (616-45-5)			
Not applicable			
Glycerol (56-81-5)			
ACGIH	ACGIH TWA (mg/m³)	10 mg/m³	
OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m³ (total) 5 mg/m³ (respirable fraction)	
2,4,7,9-Tetramethyl-	5-decyne-4,7-diol ethoxylate (9014-85-1)		
Not applicable			
Ethylene glycol (107	'-21-1)		
ACGIH	Local name	Ethylene glycol	
ACGIH	ACGIH Ceiling (mg/m³)	100 mg/m³	
ACGIH	ACGIH Ceiling (ppm)	39.4 ppm	
ACGIH	Remark (ACGIH)	Kidney dam; URT & eye irr	
Water (7732-18-5)			
Not applicable			
Proprietary magenta dye (not assigned)			
Not applicable			

8.2. Appropriate engineering controls

Appropriate engineering controls : Avoid splashing. No special work practices are needed beyond the above recommendations

under anticipated conditions of normal use.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Wear suitable gloves resistant to chemical penetration. butyl rubber gloves. natural rubber gloves. Minimum glove thickness is 0.11 mm.

04/04/2019 EN (English US) SDS ID: memjet_1300005 3/9

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Eye protection:

Use splash goggles when eye contact due to splashing is possible.

Respiratory protection:

No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation

Other information:

Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Semi-opaque. Color : Magenta.

Odor : No data available
Odor threshold : No data available

pH : 6.5 - 7.5

Melting point : No data available Freezing point : No data available

Boiling point : > 90 °C

Flash point : > 93.3 °C Closed cup (Pensky-Martens)

Relative evaporation rate (butyl acetate=1) : No data available Flammability (solid, gas) : No data available Vapor pressure : No data available Relative vapor density at 20 °C : > 1 (Air = 1) Relative density : 1 - 1.1

Relative density of saturated gas/air mixture : 1 - 1.1

Solubility : Soluble in water. Log Pow : No data available : No data available Auto-ignition temperature Decomposition temperature : No data available : No data available Viscosity, kinematic : 1.7 - 2.1 mPa·s Viscosity, dynamic : No data available **Explosive limits** Explosive properties : No data available Oxidizing properties : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Keep/Store away from incompatible materials.

10.5. Incompatible materials

Oxidizing agent.

04/04/2019 EN (English US) SDS ID: memjet_1300005 4/9

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

10.6. Hazardous decomposition products

No dangerous decomposition products known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

2-pyrrolidone (616-45-5)			
LD50 oral rat	5000 mg/kg		
LD50 dermal rabbit	> 2000 mg/kg		
LC50 inhalation rat (mg/l)	> 20 mg/l/4h		
ATE US (oral)	5000 mg/kg body weight		
Glycerol (56-81-5)			
LD50 oral rat	5570 mg/kg		
ATE US (oral)	5570 mg/kg body weight		
2,4,7,9-Tetramethyl-5-decyne-4,7-diol ethoxyla	2,4,7,9-Tetramethyl-5-decyne-4,7-diol ethoxylate (9014-85-1)		
LD50 oral rat	> 5000 mg/kg		
LD50 dermal rat	> 2000 mg/kg		
LC50 inhalation rat (mg/l)	> 2 mg/l/4h		
Ethylene glycol (107-21-1)			
LD50 dermal rat	> 3500 mg/kg (mouse)		
LC50 inhalation rat (mg/l)	> 2.5 mg/l/4h		
ATE US (oral)	500 mg/kg body weight		

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitization : Not classified Germ cell mutagenicity : Not classified Carcinogenicity : Not classified

Reproductive toxicity : May damage fertility or the unborn child.

Specific target organ toxicity – single exposure : Not classified

Specific target organ toxicity – repeated : May cause damage to organs through prolonged or repeated exposure.

exposure

2-pyrrolidone (616-45-5)			
NOAEL (oral,rat,90 days) 207 mg/kg bodyweight/day The kidneys were the most affected organs.			
2,4,7,9-Tetramethyl-5-decyne-4,7-diol ethoxylate (9014-85-1)			
NOAEL (subacute,oral,animal/male,28 days) 200 mg/kg body weight			
Ethylene glycol (107-21-1)			
LOAEL (oral,rat,90 days) 1000 mg/kg bodyweight/day			
NOAEL (oral,rat,90 days)	150 mg/kg bodyweight/day kidney		

Aspiration hazard : Not classified

Likely routes of exposure : Inhalation. Skin and eye contact.

Symptoms/effects : May cause damage to organs (kidneys) (through prolonged or repeated exposure).

Symptoms/effects after inhalation : Inhalation may cause: irritation, cough, shortness of breath.

Symptoms/effects after skin contact : May cause an allergic skin reaction.

Symptoms/effects after eye contact : Causes serious eye irritation.

Symptoms/effects after ingestion : Not expected to present a significant ingestion hazard under anticipated conditions of normal

use.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water : Harmful to aquatic life with long lasting effects.

04/04/2019 EN (English US) SDS ID: memjet_1300005 5/9

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

2-pyrrolidone (616-45-5)			
LC50 fish 1	> 4600 (4600 - 10000) mg/l 96 hr. Danio rerio		
EC50 Daphnia 1	> 500 mg/l		
ErC50 (algae)	> 500 mg/l		
NOEC (acute)	4640 mg/l		
Glycerol (56-81-5)			
LC50 fish 1	68 - 72 mg/l		
2,4,7,9-Tetramethyl-5-decyne-4,7-diol ethoxyl	2,4,7,9-Tetramethyl-5-decyne-4,7-diol ethoxylate (9014-85-1)		
LC50 fish 1	52.5 mg/l juvenile S. maximus		
EC50 Daphnia 1	166 mg/l		
ErC50 (algae)	15 mg/l		
NOEC chronic algae	1 mg/l		
Ethylene glycol (107-21-1)			
LC50 fish 1	72860 mg/l Pimephales promelas		
EC50 Daphnia 1	> 100 mg/l		
NOEC chronic fish	15380 mg/l Pimephales promelas		
NOEC chronic crustacea	8590 mg/l Ceriodaphnia sp.		

12.2. Persistence and degradability

12.2. I distance and degradability		
VERSAPASS® DG Magenta		
Persistence and degradability May cause long-term adverse effects in the environment.		
2-pyrrolidone (616-45-5)		
Persistence and degradability	Readily biodegradable.	
Glycerol (56-81-5)		
Persistence and degradability	Readily biodegradable.	
2,4,7,9-Tetramethyl-5-decyne-4,7-diol ethoxylate (9014-85-1)		
Persistence and degradability Not readily biodegradable.		
Ethylene glycol (107-21-1)		
Persistence and degradability	Readily biodegradable.	
Biodegradation	> 60 % 28 d	

12.3. Bioaccumulative potential

2-pyrrolidone (616-45-5)	
Bioconcentration factor (BCF REACH)	3.16
Log Pow	- 0.32
Bioaccumulative potential	Not expected to bioaccumulate.

2,4,7,9-Tetramethyl-5-decyne-4,7-diol ethoxylate (9014-85-1)		
Bioconcentration factor (BCF REACH) < 24		
Bioaccumulative potential Not expected to bioaccumulate.		
Ethylene glycol (107-21-1)		
Log Pow	- 1.36	
Bioaccumulative potential Not expected to bioaccumulate.		

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Do not dispose in household garbage. Dispose in a safe manner in accordance with local/national regulations.

04/04/2019 EN (English US) SDS ID: memjet_1300005 6/9

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated.

Transportation of Dangerous Goods

Not regulated.

Transport by sea

Not regulated.

Air transport

Not regulated.

SECTION 15: Regulatory information

15.1. US Federal regulations

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Ethylene glycol	CAS-No. 107-21-1	5 - 10%			
2-pyrrolidone (616-45-5)	2-pyrrolidone (616-45-5)				
Listed on the United States TSCA (Toxic Substan	ces Control Act) inventory				
Glycerol (56-81-5)					
Listed on the United States TSCA (Toxic Substan	ces Control Act) inventory				
2,4,7,9-Tetramethyl-5-decyne-4,7-diol ethoxyla	e (9014-85-1)				
Listed on the United States TSCA (Toxic Substan	ces Control Act) inventory				
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).				
Ethylene glycol (107-21-1)					
Listed on the United States TSCA (Toxic Substances Control Act) inventory					
EPA TSCA Regulatory Flag T - T - indicates a substance that is the subject of a final TSCA section 4 test rule.					
CERCLA RQ 5000 lb					
Proprietary magenta dye (not assigned)					
Not listed on the United States TSCA (Toxic Substances Control Act) inventory					

15.2. International regulations

CANADA

2-pyrroli	done	(616-45-5)
-----------	------	------------

Listed on the Canadian DSL (Domestic Substances List)

Glycerol (56-81-5)

Listed on the Canadian DSL (Domestic Substances List)

2,4,7,9-Tetramethyl-5-decyne-4,7-diol ethoxylate (9014-85-1)

Listed on the Canadian DSL (Domestic Substances List)

Ethylene glycol (107-21-1)

Listed on the Canadian DSL (Domestic Substances List)

Proprietary magenta dye (not assigned)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

EU-Regulations

VERSAPASS® DG Magenta

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)- Directive 79/831/EEC, sixth Amendment of Directive 67/548/EEC (dangerous substances)

04/04/2019 EN (English US) SDS ID: memjet_1300005 7/9

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Glycerol (56-81-5)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Ethylene glycol (107-21-1)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

Glycerol (56-81-5)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on KECI (Korean Existing Chemicals Inventory)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

Listed on Taiwan National Chemical Inventory

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on the AICS (Australian Inventory of Chemical Substances)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Ethylene glycol (107-21-1)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

Listed on the AICS (Australian Inventory of Chemical Substances)

Listed on Taiwan National Chemical Inventory

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on KECI (Korean Existing Chemicals Inventory)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

15.3. US State regulations



This product can expose you to Ethylene glycol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Ethylene glycol (107-21-1)					
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
No	Yes	No	No		8700 μg/day (oral)
U.S California Other informatio	- Proposition 65 -	Ingestion			

2-pyrrolidone (616-45-5)

U.S. - Pennsylvania - RTK (Right to Know) List

Glycerol (56-81-5)

U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - Pennsylvania - RTK (Right to Know) List

Ethylene glycol (107-21-1)

U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities

U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations

U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Revision date : 04/04/2019

04/04/2019 EN (English US) SDS ID: memjet_1300005 8/9

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Full text of H-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Acute 10x. 4 (Olal)	Acute toxicity (oral) Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Repr. 1B	Reproductive toxicity Category 1B
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
H302	Harmful if swallowed
H318	Causes serious eye damage
H319	Causes serious eye irritation
H360	May damage fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

Abbreviations and acronyms:

DIEV	deviations and actoriyms.				
	ATE: Acute Toxicity Estimate				
	CAS (Chemical Abstracts Service) number				
	DNEL: Derived No Effect Level				
	EC50: Environmental Concentration associated with a response by 50% of the test population.				
	GHS: Globally Harmonized System (of Classification and Labeling of Chemicals				
	IPPC: Integrated Pollution Prevention and Control				
	LD50: Lethal Dose for 50% of the test population				
	NOEC: No Observable Effect Concentration				
	PNEC: Predicted No Effect Level				
	OSHA: Occupational Safety & Health Administration				
	PBT: Persistent, Bioaccumulative, Toxic				
	STEL: Short Term Exposure Limits				
	TSCA: Toxic Substances Control Act				
	TWA: Time Weighted Average				

Indication of changes:

Section	Changed item	Change	Comments
2.1	Hazard statements (GHS US)	Modified	
2.1	Precautionary statements (GHS US)	Modified	
2.1	Signal word (GHS US)	Modified	
2.1	GHS-US classification	Modified	

SDS Prepared by: The Redstone Group

Suite 206
Dublin, OH USA 43017
T 614-923-7472
www.redstonegrp.com

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

04/04/2019 EN (English US) SDS ID: memjet_1300005 9/9