

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Trade name : VERSAPASS® DA Yellow

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Ink for printing
 Restrictions on use : No additional information available

1.3. Supplier

Supplier

Memjet
 Trintech Building
 South County Business Park, Leopardstown
 Dublin D18 H5H9
 Ireland
 +353 1 678 0420
 msds@memjet.com
 www.memjet.com

1.4. Emergency telephone number

Emergency number : CHEMTREC Primary Phone Numbers (24 hours): U.S. 1-800-424-9300, International: +1-703-527-3887
 Local: +1 703-741-5970

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Skin sensitization, Category 1	H317	May cause an allergic skin reaction
Specific target organ toxicity (repeated exposure) Category 2	H373	May cause damage to organs (kidneys) through prolonged or repeated exposure (oral)

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning
 Hazard statements (GHS US) : H317 - May cause an allergic skin reaction
 H373 - May cause damage to organs (kidneys) through prolonged or repeated exposure (oral)
 Precautionary statements (GHS US) : P260 - Do not breathe vapors.
 P272 - Contaminated work clothing must not be allowed out of the workplace.
 P280 - Wear protective gloves, protective clothing, eye protection, face protection.
 P302+P352 - If on skin: Wash with plenty of soap and water.
 P314 - Get medical advice/attention if you feel unwell.
 P321 - Specific treatment (see supplemental first aid instruction on this label).

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P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P363 - Wash contaminated clothing before reuse.
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

2.4. Unknown acute toxicity (GHS US)

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Ethylene glycol	CAS-No.: 107-21-1	≥ 5 – < 10	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
Glycerine	CAS-No.: 56-81-5	≥ 1 – < 2.5	Not classified
Sodium hydroxide	CAS-No.: 1310-73-2	< 0.5	Skin Corr. 1A, H314
1,2-benzisothiazol-3(2H)-one	CAS-No.: 2634-33-5	< 0.05	Acute Tox. 4 (Oral), H302 Acute Tox. 2 (Inhalation), H330 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Comments : The exact percentage (concentration) in the composition has been withheld as a trade secret in accordance with paragraph (i) of § 1910.1200

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. If you feel unwell, seek medical advice.

First-aid measures after skin contact : Wash skin thoroughly with mild soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention if you feel unwell.

First-aid measures after ingestion : Do not induce vomiting. Rinse mouth out with water. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

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

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

Symptoms/effects after skin contact : May cause an allergic skin reaction. Rednesses. Itching. Swelling. Allergic skin rash.

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Symptoms/effects after eye contact	: Direct contact with the eyes is likely to be irritating.
Symptoms/effects after ingestion	: Ingestion may cause nausea, vomiting and diarrhea. Abdominal pain.
Chronic symptoms	: May cause damage to organs through prolonged or repeated exposure.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Dry powder. Carbon dioxide. Water spray. Foam. Use extinguishing agent suitable for surrounding fire.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard	: Presents no particular fire or explosion hazard. Burning produces stinking and toxic fumes. In case of fire and/or explosion do not breathe fumes.
Hazardous decomposition products in case of fire	: Toxic fumes may be released. Carbon dioxide. Carbon monoxide.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Evacuate the danger area. Move containers from fire area if it can be done without personal risk. Use water spray or fog for cooling exposed containers. Fight fire from safe distance and protected location. Use extinguishing media appropriate for surrounding fire. Prevent fire-fighting water from entering environment.
Protection during firefighting	: Wear a self contained breathing apparatus. Wear fire/flammable resistant/retardant clothing. Do not attempt to take action without suitable protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Avoid all contact with skin, eyes, or clothing.
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6.1.1. For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Evacuate unnecessary personnel. Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing vapors. Do not touch or walk on the spilled product. No action shall be taken without appropriate training or involving any personal risk.

6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment.
Emergency procedures	: Evacuate unnecessary personnel. Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment	: Stop leak, if possible without risk. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Caution : this product can cause the floor to be slippery.
Methods for cleaning up	: Ventilate spillage area. Move containers from spill area. Recover small spills with a suitable absorbent, like diatomaceous earth. For large spills, confine the spill in a dike and charge it with wet sand or earth for subsequent safe disposal. Place in a suitable container for disposal in accordance with the waste regulations (see Section 13).

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Methods for cleaning up	: Clean contaminated surfaces with an excess of water. Prevent entry to sewers and public waters.
Other information	: Dispose of via an authorised person/ licensed waste disposal contractor or by other suitable waste treatment techniques. Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13. For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Ensure good ventilation of the work station. Provide local exhaust or general room ventilation. Do not breathe vapors. Wear personal protective equipment. Do not get in eyes, on skin, or on clothing.
Hygiene measures	: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Keep only in the original container in a cool, well ventilated place away from : Direct sunlight, Strong oxidizers, Store in a dry place. Keep away from food, drink and animal feed. Keep container tightly closed. Containers which are opened should be properly resealed and kept upright to prevent leakage. Store in accordance with local, regional, national or international regulation. Do not store in unlabelled containers.
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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ethylene glycol (107-21-1)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Ethylene glycol
ACGIH OEL TWA	25 ppm (V - Vapor fraction)
ACGIH OEL STEL	10 mg/m ³ (I - Inhalable particulate matter, H - Aerosol only)
	50 ppm (V - Vapor fraction)
Remark (ACGIH)	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2024
Glycerine (56-81-5)	
USA - OSHA - Occupational Exposure Limits	
Local name	Glycerin (mist)
OSHA PEL TWA	15 mg/m ³ (Total dust)
	5 mg/m ³ (Respirable fraction)
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

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Sodium hydroxide (1310-73-2)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Sodium hydroxide
ACGIH OEL Ceiling	2 mg/m ³
Remark (ACGIH)	TLV® Basis: URT, eye, & skin irr
Regulatory reference	ACGIH 2024
USA - OSHA - Occupational Exposure Limits	
Local name	Sodium hydroxide
OSHA PEL TWA	2 mg/m ³
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
Monitoring methods	
Monitoring methods	Refer to all applicable national, international and local regulations or provisions.

8.2. Appropriate engineering controls

Appropriate engineering controls	: Provide local exhaust or general room ventilation. Ensure exposure is below occupational exposure limits (where available). Handle in accordance with good industrial hygiene and safety procedures. Avoid all unnecessary exposure.
Environmental exposure controls	: Avoid release to the environment. Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Wear recommended personal protective equipment. Personal protective equipment should be chosen according to the NIOSH standards and in discussion with the supplier of the protective equipment.

Hand protection:
Chemical resistant gloves (according to NIOSH standard). Please follow the instructions related to the permeability and the penetration time provided by the manufacturer
Eye protection:
Even though no specific eye irritation data are available, wear eye protection appropriate to conditions of use when handling this material
Skin and body protection:
Wear suitable protective clothing. Skin protection appropriate to the conditions of use should be provided
Respiratory protection:
No respiratory protection needed under normal use conditions. Where excessive vapor, mist, or dust may result, use approved respiratory protection equipment. All respirators must conform to specifications for efficiency and performance indicated by OSHA Standard 29 CFR 1910.134 and NIOSH Standards

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Yellow
Odor	: According to product specification
Odor threshold	: No data available

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pH	: 6 – 8
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: 1 – 1.1
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 2 – 4 mPa·s (25 °C, 77 °F)
Explosion limits	: No data available
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

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Hazardous polymerization: Will not occur.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7). Protect from sunlight. Overheating. Extremely high or low temperatures.

10.5. Incompatible materials

Oxidising agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Ethylene glycol (107-21-1)

LD50 dermal rat	> 3500 mg/kg
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Ethylene glycol (107-21-1)	
LC50 Inhalation - Rat (Dust/Mist)	> 2.5 mg/l/4h
LC50 Inhalation - Rat (Vapours)	> 2.5 mg/l/4h
ATE US (oral)	500 mg/kg body weight
Glycerine (56-81-5)	
LD50 oral rat	12600 mg/kg
LD50 dermal rabbit	> 10000 mg/kg
LC50 Inhalation - Rat (Vapours)	> 2 mg/l/4h
1,2-benzisothiazol-3(2H)-one (2634-33-5)	
ATE US (oral)	450 mg/kg body weight
ATE US (gases)	100 ppmV/4h
ATE US (vapors)	0.5 mg/l/4h
ATE US (dust, mist)	0.21 mg/l/4h
Skin corrosion/irritation	: Not classified pH: 6 – 8
Serious eye damage/irritation	: Not classified pH: 6 – 8
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).
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)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
Ethylene glycol (107-21-1)	
Viscosity, kinematic	14.505 mm²/s
Symptoms/effects after inhalation	: Not expected to present a significant inhalation hazard under anticipated conditions of normal use.
Symptoms/effects after skin contact	: May cause an allergic skin reaction. Rednesses. Itching. Swelling. Allergic skin rash.
Symptoms/effects after eye contact	: Direct contact with the eyes is likely to be irritating.
Symptoms/effects after ingestion	: Ingestion may cause nausea, vomiting and diarrhea. Abdominal pain.
Chronic symptoms	: May cause damage to organs through prolonged or repeated exposure.
Other information	: No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
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Ethylene glycol (107-21-1)	
LC50 - Fish [1]	72860 mg/l (Pimephales promelas)
EC50 - Crustacea [1]	> 100 mg/l (Daphnia magna)
EC50 96h - Algae [1]	3536 mg/l
EC50 96h - Algae [2]	6500 – 13000 mg/l (Pseudokirchneriella subcapitata)
NOEC (chronic)	≥ 1000 mg/l (23 d, Americamysis bahia)

Glycerine (56-81-5)	
LC50 - Fish [1]	54000 mg/l (96 h, Oncorhynchus mykiss)

Sodium hydroxide (1310-73-2)	
EC50 - Crustacea [1]	40 mg/l

12.2. Persistence and degradability

VERSAPASS® DA Yellow	
Persistence and degradability	Biodegradability in water: no data available.

12.3. Bioaccumulative potential

VERSAPASS® DA Yellow	
Bioaccumulative potential	No data available concerning bioaccumulation.

12.4. Mobility in soil

VERSAPASS® DA Yellow	
Ecology - soil	No additional information available.

12.5. Other adverse effects

Other adverse effects : No additional information available.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations : Do not dispose of waste into sewer.
Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Ecological information : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Not regulated
Proper Shipping Name (TDG) : Not regulated

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Proper Shipping Name (IMDG) : Not regulated
Proper Shipping Name (IATA) : Not regulated

14.3. Transport hazard class(es)

DOT
Transport hazard class(es) (DOT) : Not regulated

TDG
Transport hazard class(es) (TDG) : Not regulated

IMDG
Transport hazard class(es) (IMDG) : Not regulated

IATA
Transport hazard class(es) (IATA) : Not regulated

14.4. Packing group

Packing group (DOT) : Not regulated
Packing group (TDG) : Not regulated
Packing group (IMDG) : Not regulated
Packing group (IATA) : Not regulated

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT
Not regulated

TDG
Not regulated

IMDG
Not regulated

IATA
Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

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%
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Ethylene glycol (107-21-1)

Listed on EPA Hazardous Air Pollutant (HAPS)

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Ethylene glycol (107-21-1)

CERCLA RQ

5000 lb

Sodium hydroxide (1310-73-2)

CERCLA RQ

1000 lb

15.2. International regulations

CANADA

Ethylene glycol (107-21-1)

Listed on the Canadian DSL (Domestic Substances List)

Glycerine (56-81-5)

Listed on the Canadian DSL (Domestic Substances List)

1,2-benzisothiazol-3(2H)-one (2634-33-5)

Listed on the Canadian DSL (Domestic Substances List)

Sodium hydroxide (1310-73-2)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Ethylene glycol (107-21-1)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Glycerine (56-81-5)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

1,2-benzisothiazol-3(2H)-one (2634-33-5)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Sodium hydroxide (1310-73-2)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations



WARNING:

This product can expose you to Ethylene glycol (ingested), 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.

SECTION 16: Other information

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Data sources : Supplier's safety documents. ECHA (European Chemicals Agency).

Training advice : Training staff on good practice.

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Full text of H-phrases	
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H330	Fatal if inhaled
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Abbreviations and acronyms	
ATE	Acute Toxicity Estimate
CAS-No.	Chemical Abstract Service number
EC50	Median effective concentration
EC-No.	European Community number
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
N.O.S.	Not Otherwise Specified
NOAEL	No-Observed Adverse Effect Level
OEL	Occupational Exposure Limit
OECD	Organisation for Economic Co-operation and Development
SDS	Safety Data Sheet

Safety Data Sheet (SDS), USA

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.