

Safety Data Sheet

in accordance with Regulation (EC) No. 1907/2006 (REACH)

TEST INK / PENS PINK 40 - 42 mN/m

Product no.: 40.60000/40.45000

Revision date: 02/01/2025

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1. Identification of the substance/ mixture and of the company/ undertaking

1.1 Product identifier:

Trade name / designation: 40 & 42 Dyne Prefilled Test Pen

UFI-Codes: see annex of this safety data sheet.

1.2 Relevant identified uses of the substance or mixture and uses advised against

1.2.1 Uses of the substance or mixture:

Determination of the surface tension and surface cleanliness of solids (films / moulded parts) made of plastic, metal, glass etc.

1.2.2 Uses advised against: Do not use for products which come into contact with foodstuffs. Do not use for private purposes (household).

1.3 Details of the supplier of the safety data sheet

Company name

Corona Supplies Ltd

Address

Unit G, Howland Road Business Park
Thame, Oxon. OX9 3GQ. UK.

Phone

+44 1844 261779

Fax

+44 1844 358187

E-mail

sales@coronasupplies.co.uk

Website

www.coronasupplies.co.uk

1.4 EMERGENCY TELEPHONE NUMBER:

+49 170 5351 781
(24h English)

2. Hazards identification

2.1. Classification of the mixture:

Regulation (EC) No. 1272/2008

Eye irritation, category 2	H319
Irritant effect on the skin, category 2	H315
Acute toxicity, category 4 (oral)	H302
Reproductive toxicity, cat.2	H361d

Additional information:

Full text of H and EUH phrases: see under section 16.

2.2. Labelling elements

Labelling in accordance with Regulation (EG) No. 1272/2008 [CLP]

Hazard pictograms:



Signal word:

Warning

Hazard-determining components of labeling:

2-Methyl-2,4-pentanediol

Diethylene glycol

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H302	Harmful if swallowed.
H361d:	Suspected of damaging the unborn child.

Precautionary statements:

P270	Do not eat, drink or smoke when using this product.
P260	Do not breathe dust/vapours.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P301 + P312
P501

IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell.
Dispose of contents / container to a hazardous waste collection point or special requirements in accordance with local, regional or international regulations.

Labelling of packaging with contents of no more than 125 ml

Signal word: Warning

Hazard symbol:



For professional users only.

2.3 Other hazards:

Results of PBT and vPvB assessment

The substances in the mixture are neither PBT nor vPvB.

Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$.

3. Composition / Information on ingredients

3.1 Substances

Not applicable, product is a mixture

3.2 Mixtures

Hazardous ingredients

Designation				
CAS No.	EC No.	REACH No.	Index No.	%
Classification in accordance with Regulation (EG) No. 1272 [CLP]				MG in g/mol
2-Methyl-2,4-pentanediol – C ₆ H ₁₄ O ₂				
107-41-5	203-489-0	01-2119539582-35-xxxx	603-053-00-3	3-90%
Eye Irrit. 2, Skin Irrit. 2, Rep 2; H319, H315, H361d				118.17 g/mol
Diethylene glycol - Synonym: 2,2'-oxydiethanol – C ₄ H ₁₀ O ₃				
111-46-6	203-872-2	01-2119457857-21-xxxx	603-140-00-6	10-100%
Acute tox. 4 (oral); H302				106.12 g/mol

Preparation of organic solvents and colouring components

Additional information:

Full text of H and EUH phrases: see under section 16.

4. First aid measures

4.1 Description of first aid measures

After inhalation:

Supply fresh air

After skin contact:

Rinse with plenty of water. Remove contaminated clothing.

After eye contact:

Rinse with plenty of water. Consult an ophthalmologist in case of eye irritation.

After ingestion:

Drink plenty of water immediately (maximum 2 glasses). Consult a doctor.

4.2 Most important symptoms and effects, both acute and delayed

Coughing, dyspnoea, dizziness, unconsciousness, headache, convulsions, nausea, vomiting.

4.3 Indication of any immediate medical attention or special treatment needed

No information available.

5. Firefighting measures

5.1 Extinguishing agents:

Water, carbon dioxide (CO₂), foam, extinguishing powder

5.2 Specific hazards arising from the substance or mixture

Flammable substances, vapours are heavier than air and spread over the floor.

Intense heating may cause explosive mixtures with air to form.

Hazardous combustion gases or vapours may form in case of fire: carbon monoxide and carbon dioxide.

5.3 Advice for fire-fighters

Do not stay in the danger area without self-contained breathing apparatus. Avoid skin contact by keeping a safe distance or wearing suitable protective clothing.

Additional information:

Prevent extinguishing water from entering the surface water or ground water system.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Do not inhale vapours/aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger zone, observe emergency procedures, consult an expert.

Emergency services

Protective equipment: see section 8

6.2 Environmental precautions:

Do not empty into drains. Risk of explosion.

6.3 Methods and material for containment and cleaning up

Seal drains. Contain, control and pump off the spillage.

Please note possible material restrictions! (Information in section 7 or section 10)

Absorb with liquid-binding material. Send for disposal. Clean up area.

6.4 Reference to other sections

Refer to section 13 for disposal information

7. Handling and storage

7.1 Precautions for safe handling

Protective measures:

Avoid formation of aerosols. Keep container tightly closed

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage facilities and containers:

Keep tightly closed.

Recommended storage temperature: 15 – 25 °C

7.3 Specific end uses:

There are no other specific end uses other than those referred to in section 1.

8. Exposure controls / personal protection

8.1 Control parameters

No data available.

8.2 Exposure limitation and control

Technical protection measures and the use of suitable working methods always have priority over the use of personal protective equipment. See section 7.

8.2.1 Appropriate engineering controls:

The method for measuring the workplace atmosphere must comply with the requirements of DIN EN 482 and DIN 689.

8.2.2 Personal protective equipment:

Body protection needs to be selected specifically for the workplace based on the concentration and volume of hazardous substances. The chemical resistance of the protective equipment should be ascertained with the respective supplier.

As work is generally carried out with very small quantities, there is less need for personal protective equipment with the exception of appropriate hand protection if used carefully and properly with a brush or pen application as long as skin contact can be excluded. It is advisable to use special skin barrier cream to protect the skin.

Hygiene measures:

Change contaminated clothing immediately. Preventative skin protection. Wash hands and face after finishing work.

Eye protection:

Safety goggles

Hand protection:

In full contact:

Hand protection material: Nitrile rubber,
Layer thickness 0.40 mm, > 480 min breakthrough time

With splash contact: Hand protection material: nitrile rubber,
Layer thickness 0.11 mm, >240 min breakthrough time

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the resultant standard EN 374, for example KCL 706 Lapren® (full contact), KCL 741 Dermatril® L (splash contact).

The breakthrough times stated above were determined by KCL in laboratory tests according to EN374 with samples of the recommended glove types.

This recommendation applies only for the product mentioned in this safety data sheet that is supplied for the purpose specified by us. If it is dissolved in or mixed with other substances and under conditions deviating from EN374, you will need to contact suppliers of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell).

Respiratory protection:

Required when vapours/aerosols are generated.

Recommended filter type: filter A

The operator must ensure that the maintenance, cleaning and testing of breathing apparatus is carried out and documented in accordance with the manufacturer's user information.

8.2.3 Environmental exposure limitation and control

Do not empty into drains

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form:	liquid
Colour:	pink
Odour:	nearly odourless
Odour threshold:	no information available
pH value:	no information available
Melting point:	by grading, between -40 and -6°C
Boiling point / boiling range:	by grading, between 196 and 252°C at 1013 hPa
Flash point:	between 93 and 138°C c.c. (DIN 51758)
Evaporation rate:	no information available
Flammability (solid, gaseous):	no information available
Lower explosion limit:	between 0,7 and 1 % vol
Upper explosion limit:	between 9.9 and 22 % vol
Vapour pressure:	(20°C): between 0.008 and 0.07 hPa
Density:	no information available.
Solubility:	no information available.
Water solubility:	no information available.
Partition coefficient; n	log Pow: -1.98 to 0.58 (25°C)
Octanol/water	Method: (IUCLID) (lit.) Bioaccumulation is not expected (log Pow <1)
Autoignition temperature:	no information available
Decomposition temperature:	no information available
Viscosity, dynamic:	(20°C) 36 – 45 mPa.
Explosive properties:	no information available
Oxidising properties:	no information available
Organic solvent:	100.0 %
VOC (EU)	100.00 %
Other information:	
Ignition temperature:	between 355 and 425 (DIN 51794)
Particle characteristics:	not relevant (liquid)

10. Stability and reactivity

10.1 Reactivity:

Intense heating may cause explosive mixtures with air to form.

10.2 Chemical stability:

The product is chemically stable under normal ambient conditions (room temperature).

10.3 Possibility of hazardous reactions:

Violent reactions are possible with mineral acids, strong oxidising agents

10.4 Conditions to avoid:

Intense heating. A range from approx 15 Kelvin below the flash point is to be considered critical.

10.5 Incompatible materials:

No information available

10.6 Hazardous decomposition products:

No information available

11. Toxicological information**11.1 Information on toxicological effects****11.1.1 Substances****Acute toxicity of Diethylene glycol**

Oral: LD₅₀ human: dose 1000 mg/kg (TOXNET)

Dermal: LD₅₀ rabbit: dose 11890 mg/kg (TOXNET)

Acute toxicity of 2-Methyl-2,4-pentanediol

Oral: LD₅₀ rat: dose 3692 mg/kg (IUCLID); absorption

Inhalation: Symptoms: mucosal irritation, coughing, dyspnoea

Dermal: LD₅₀ rabbit: dose 8000 mg/kg (RTECS);

Skin irritation with Diethylene glycol: No irritation

Skin irritation with 2-Methyl-2,4-pentanediol (rabbit): Irritations (IUCLID)

Eye irritation with Diethylene glycol: No irritation

Eye irritation with 2-Methyl-2,4-pentanediol (rabbit): Causes serious eye irritation

Sensitisation test with Diethylene glycol (guinea pig): negative

In-vitro genotoxicity with Diethylene glycol Ames test: negative (IUCLID)

In-vitro genotoxicity with 2-Methyl-2,4-pentanediol Ames test: negative (IUCLID)

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Shall not be classified as germ cell mutagenic, carcinogenic nor as a reproductive toxicant.

Specific target organ toxicity (single exposure)

The mixture is not classified as target organ toxic with single exposure.

Specific target organ toxicity (repeated exposure)

The mixture is not classified as target organ toxic with single exposure.

Risk of aspiration

No classification with regard to aspiration toxicity

Further information:

Systemic effects:

If swallowed: Nausea, vomiting, effects on the central nervous system, tiredness. Can cause: Kidney problems, other hazardous characteristics cannot be excluded.

Headache, dizziness, convulsions, unconsciousness, drop in blood pressure, tachycardia

Further information:

Take the normal precautions when handling chemicals.

11.2 Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$.

11.3 Information on other hazards

There is no additional information.

12. Ecological information**12.1 Toxicity:****Diethylene glycol:**

(Akute) aquatische Toxizität

LC₅₀ Pimephales promelas 75.200 mg/l /96 h (ECHA)

EC₅₀ Daphnia magna >10.000 mg/l /48 h

(Chronische) aquatische Toxizität

EC₅₀ wirbellose Wasserlebewesen >10.000 mg/l / 24h (ECHA)

2-Methyl-2,4-pentanediol:

Fish toxicity: LC₅₀ Gambusia affinis: 8510 mg/l/ 96 h (ECOTOX Database)

Daphnia toxicity: EC₅₀ Daphnia magna: 5410 mg/l /48 h (IUCLID)

Bacteria toxicity: EC₅₀ Photobacterium phosphoreum: 3070 mg/l 5 min (IUCLID)

12.2 Persistence and degradability**Diethylene glycol:**

Prozess: biotisch/abiotisch, 91,8% /28d

2-Methyl-2,4-pentanediol:

Biodegradability: >70% - 28d / Method: OECD guideline for testing 302B

Result: easily eliminated (DOC reduction >70%)

12.3 Bioaccumulation potential:

Partition coefficient; n-Octanol / water

Diethylene glycol: Log Kow: -1,98 (25°C)

BCF: 100

2-Methyl-2,4-pentanediol: Log Pow: 0.58 (calculated)

Bioaccumulation is not expected (log Pow<1)

12.4 Mobility in soil

No information available

12.5 Results of PBT and vPvB assessment

The substances in the mixture are neither PBT nor vPvB.

12.6 Endocrine disrupting propertiesDoes not contain an endocrine disruptor (EDC) at a concentration of $\geq 0,1\%$.**12.7 Other adverse effects**

Data are not available.

12.8 Other harmful effects:**Additional ecotoxicological information:**

Do not allow to enter watercourses, waste water or soil!

13. Disposal considerations**13.1 Waste management process**

This product and its container must be disposed of as hazardous waste. Disposal of contents and containers in accordance with local/regional/international regulations.

Information relevant for waste water disposal

Do not allow to enter sewerage system.

13.2 Relevant waste legislation

The assignment of the waste code numbers /waste designations shall be carried out in accordance with EAKV in a sector- and process-specific manner.

13.3 Remarks

Waste shall be separated in such a way that it can be treated separately by municipal or national waste facilities. Please observe the relevant national or regional regulations.

13.4 Further information

Ink that is no longer usable can be returned for disposal.

14. Transport information**14.1 UN number or ID number**

not subject to transport regulations

14.2 UN proper shipping name

not assigned

14.3 Transport hazard class(es)

none

14.4 Packing group not assigned

not assigned

14.5 Environmental hazards

non-environmentally hazardous acc. to the dangerous goods regulations

14.6 Special precautions for user

There is no additional information.

14.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

14.8 Information for each of the UN Model Regulations**International Maritime Dangerous Goods Code (IMDG) - Additional information**

Not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Not subject to ICAO-IATA.

15. Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****15.1.1 EU regulations****Hazardous Incident Ordinance:**

96/82/EC

Directive 96/82/EC does not apply

Employment restriction:
Protection Act (94/33/EC).

Observe employment restrictions in accordance with the Youth

Observe employment restrictions in accordance with the Pregnant Workers Directive (EC 92/85/EEC) for expectant or nursing mothers.

Relevant European Union (EU) regulations for Ethanol / Methyl-2,4-pentandiol:

Regulation 649/2012/EU on the export and import of dangerous chemicals (PIC).

Not listed.

Regulation 1005/2009/EC on substances that deplete the ozone layer (ODS).

Not listed.

Regulation 850/2004/EC on Persistent Organic Pollutants (POP)

Not listed.

Regulation 75/324/EWG on Aerosol packages

Filling lot.

Seveso Directive 2012/18/EU (Seveso III)

Not assigned.

Decopaint Directive (2004/42/EC)

Diethylenglycol: VOC-Content 100 %

Methyl-2,4-pentandiol: 100 % / 920 g/l

Regulation Industrial (VOCs, 2010/75/EU)

Methyl-2,4-pentandiol: 0 % / 0 g/l

Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) - Annex II

Not listed.

Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Pollutant Release and Transfer Register (PRTR)

Not listed.

Directive 2000/60/EC establishing a framework for Community action in the field of water policy (WFD)

Not listed.

Regulation 98/2013/EU on the marketing and use of explosives precursors

Not listed

Regulation 111/2005/EC laying down rules for the monitoring of trade between the Community and third countries in drug precursors

Not listed

Restrictions according to REACH, Title VIII

Not listed.

List of substances subject to authorisation (REACH, Annex XIV) /SVHC - candidate list

Not listed.

Substance is listed in the following national inventories:

Country	National Directories	Substance status
AU	AICS	Diethylenglycol is listed Methyl-2,4-pentandiol is listed
CA	DSL	Diethylenglycol is listed Methyl-2,4-pentandiol is listed
CN	IECSC	Diethylenglycol is listed Methyl-2,4-pentandiol is listed
EU	ECSI	Diethylenglycol is listed Methyl-2,4-pentandiol is listed
EU	EINECS/ELINCS/NLP	Diethylenglycol is listed Methyl-2,4-pentandiol is listed
JP	CSCL-ENCS	Diethylenglycol is listed Methyl-2,4-pentandiol is listed
KR	KECI	Diethylenglycol is listed Methyl-2,4-pentandiol is listed
MX	INSQ	Diethylenglycol is listed Methyl-2,4-pentandiol is listed
NZ	NSQ	Diethylenglycol is listed Methyl-2,4-pentandiol is listed
PH	PICCS	Diethylenglycol is listed Methyl-2,4-pentandiol is listed
TR	CICR	Diethylenglycol is listed Methyl-2,4-pentandiol is listed
TW	TCSI	Diethylenglycol is listed Methyl-2,4-pentandiol is listed

Legende

AICS Australian Inventory of Chemical Substances
CICR Chemical Inventory and Control Regulation
CSCL-ENCS List of Existing and New Chemical Substances (CSCL-ENCS)
DSL Domestic Substances List (DSL)
ECSI EG-Stoffverzeichnis (EINECS, ELINCS, NLP)
IECSC Inventory of Existing Chemical Substances Produced or Imported in China
INSQ National Inventory of Chemical Substances
KECI Korea Existing Chemicals Inventory
NZIoC New Zealand Inventory of Chemicals
PICCS Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg. REACH registrierte Stoffe
TCSI Taiwan Chemical Substance Inventory
TSCA Toxic Substance Control Act

15.1.3 National regulations (Germany)

Storage class VCI: 10 Flammable liquids unless storage class 3

BG Chemie data sheet: M004 Irritating substances/corrosive substances
M050 Handling hazardous materials

Water hazard class: WGK 1 Slightly harmful to water

15.2 Chemical safety assessment:

No chemical safety assessment has been carried out for this product.

16. Other information**16.1 Changes made (revised safety data sheet)**

Notice of changes: Section 1 Section 2 Section 3 Section 14

16.2 Abbreviations and acronyms

ADR European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS Chemical Abstracts Service
DIN German Institute for Standardisation
EG European Community
IATA-DGR International Air Transport Association – Dangerous Goods Regulations
IBC Code International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IMDG Code International Maritime Code for Dangerous Goods
ISO International Standards Organisation
IUCLID International Uniform Chemical Information Database
LC Lethal Concentration
LD Lethal Dose
log K_{ow} Partition coefficient between octanol and water
OECD Organisation for Economic Co-operation and Development
PBT Persistent, Bioaccumulative, Toxic
RID Regulations concerning the International Carriage of Dangerous Goods by Rail
TRGS Technical Rules for Hazardous Substances
UN United Nations
VOC Volatile Organic Compounds
vPvB very Persistent and very Bioaccumulative
VwVwS Administrative Regulation on the Classification of Substances Hazardous to Water
WGK Water Hazard Class

16.3 Most important literature references and data sources

The data for the hazardous ingredients was taken from the most recent version of the pre-supplier's safety data sheet. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

16.4 Classification of mixtures and evaluation methods used in accordance with Regulation (EC) No. 1272/2008 [CLP]

See section 2.1 (classification).

16.5 Wording of H and EUH phrases (number and full text):

H302: Harmful if swallowed.

H315: Causes skin irritation

H319: Causes serious eye irritation.

H361d: Suspected of damaging the unborn child.

16.6 Training advice:

Provide appropriate information, instructions and training for users.

16.7 Other information:

The health hazards referred to in this data sheet may occur if larger quantities of the product are handled carelessly or inappropriately and when safety precautions and hygiene measures are not observed. However, as a quantity of several milligrams is used in a process to measure the surface tension and these measurements are not continuous but instead conducted over a period of one or more hours, we can practically exclude any damage to health if the product is handled correctly and the prescribed safety measures are observed (these include good ventilation and appropriate hand protection).

The information contained herein is based on our present knowledge and characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product described.