Technical Data Sheet

Document Reference	100
Date of Issue	24th Oct 2024
Revision Number	001
Date of Last Revision	24th Oct 2024

100
Standard Ink Refills



Technical Data Sheet Applicable To:

100-i52	Standard Refill Black Ink

Industry Usage
These refills are perfect for our HD Retractable, Elephant Retractable, Stainless Steel Retractable and Metal Stick pens and are fully detectable (excluding Ink)

Features and Benefits

- Metal detectable and X-ray visible
- Manufactured from detectable shatter proof plastic
- Writing length approx. 9,400M (30,840")
- Fully detectable housing and end cap

- For ambient conditions between 0°c and 30°c (32 to 86°f)
- Writing line width 1mm (39.4mils)

Material and Compliance Information:

The above is manufactured using pigments which are in accordance with: -

- European Resolution AP (89) 1
- Recommendation IX of the BfR for colouring plastics
- EN71-3 Toy regulation
- EU regulation EU No 2019/1381 amending Regulation EU No 1935/2004
- Is based on a polymer carrier that is compliant with: -
- EU regulation EU No 2020/1245 amending and correcting Regulation (EU) No 10/2011
- EU regulation EU No 2019/1381 amending Regulation EU No 1935/2004

• Has been produced according to Regulation 2023/2006/EC on good manufacturing practice for materials and articles intended to come into contact with food, applicable to plastic raw materials.

This compliance statement is based on information supplied by the polymer and pigment manufacturers, migration testing according to Regulation 10/2011, migration modelling and quality control systems in place at Detectamet.

REACH – No substances of very high concern (SVHC) above the 0.1% weight (w/w) threshold limit are present in the materials.

Regulations and Standards

We confirm that the above-mentioned products are suitable for use in contact with all food types and are in conformity with the applicable requirements of the following regulations and standards:

• Regulation (EC) no.1935/2004 on Materials and Articles intended to come into contact with food.

• Commission Regulation (EU) No.10/2011 on Plastic materials intended to come into contact with food including its updates Regulation 1282/2011 and Regulation 1183/2012.

• Regulation (EC) no. 2023/2006 on Good Manufacturing Practice for materials and articles intended to come into contact with food.

• Council of Europe Resolution AP 89/1 on the use of Colorants in Plastic Materials coming into contact with food.

• US FDA 21 CFR 177.1520 (Olefin polymers) with colorants and additives cleared for use through listing in 178.3297 (Colorants for polymers), 178.2010 (antioxidants and/or stabilisers for polymers, or other respective parts of the FDA regulations.

Migration test data obtained under short-term repeat use test conditions (6dm2/kg food) has demonstrated that levels of overall migration and specific migration of additives from these products will not exceed the legal limits with all food types.

Test Simulants	Food Types	Testing Condition
A-C, D1, D2 of Regulation No. 10,2011 for Plastic Materials and Articles in contact with food.	All dry, aqueous, acidic, alcoholic and fatty foods.	2 hours at 70C, Repeat use. Test OM3 of regulation 10/2011

2 hours at 70C, Repeat use. Test OM3 of regulation 10/2011

Dual-use food additives may be present but any migration into food will be minimal.

This compliance statement is based on information supplied by the polymer and pigment manufacturers, migration testing according to Regulation 10/2011, migration modelling and quality control systems in place at Detectamet.

General Information:

Maximum use Temperature: 100

°c Maximum wash Temperature:

121 °c

Maximum use Temperature: Do not store at deep freeze temperatures prior to use.

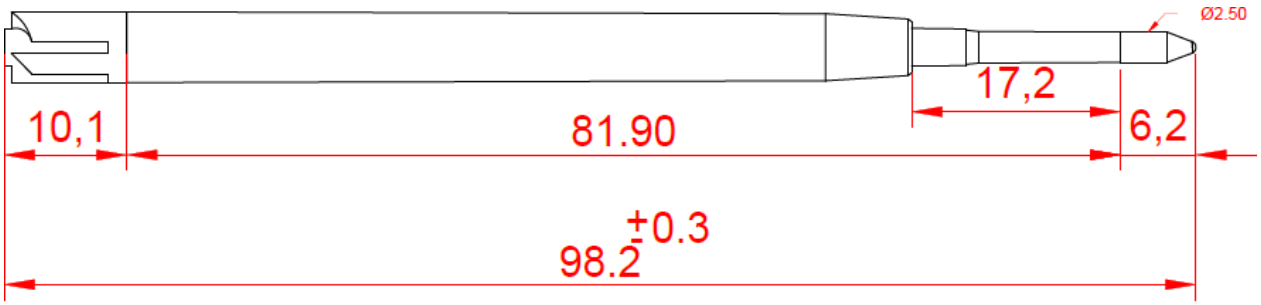
Cleaning:

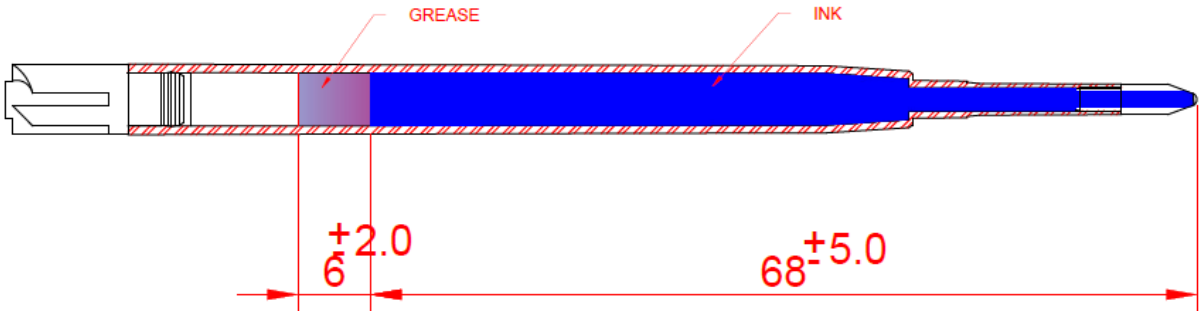
It is recommended that prior to and after use, scrapers are cleaned, disinfected & sterilized, as appropriate to their intended use (to minimise risk of microbial Growth and cross contamination, maximizing their efficiency and durability).

Refill Flight

The above is manufactured using pigments which are in accordance with: -

- Is manufactured using pigments which are in accordance with
- European Resolution AP (89) 1
- Recommendation IX of the BfR for colouring plastics
- Is manufactured using pigments which are compliant to –
- EN71-3 Toy regulation
- Is based on a polymer carrier that is compliant with: -
- EU regulation EU No 10/2011 as amended





All dimensions are in mm

Standard Pen Ink - Black

1. Identification

Trade name 6577 Black
Application of the substance/the mixture Used as inks for sketch pens, fine liners and all kinds of writing instruments.

2. Hazards identification

Classification of the substance or mixture

GHS07



Acute Tox. 4 H302 Harmful if swallowed. Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2A H319 Causes serious eye irritation.

- Classification according to Directive 67/548/EEC or Directive 1999/45/EC Not applicable.

- Classification system:

The classification was made according to the latest GHS editions of international substances lists and expanded upon from company and literature data.

- Label elements

Labelling according to GHS guidelines

The product has been classified and marked in accordance with GHS directives on hazardous materials.

Hazard-determining components of labelling

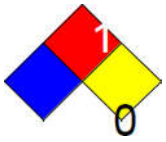
Benzyl alcohol, 2-Phenoxyethanol

- Safety phrases

Keep out of the reach of children.
Keep away from food, drink and animal feeding stuffs.
If swallowed seek medical advice immediately and show this container or label.
Dispose of this material and its container to hazardous or special waste collection point.

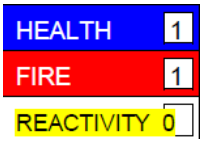
Classification system

NFPA ratings (Scale 0-4)



Health = 1
Fire = 1
Reactivity = 0

HMIS ratings (Scale 0-4)



Health = 1
Fire = 1
Reactivity = 0

Other hazards

Results of PBT and vPvB assessment PBT Not applicable
VPvB Not applicable

3. Composition/information on ingredients

Chemical characterizations: Mixtures

Description Mixture: consisting of the following components.

Dangerous components		
122-99-6	2-Phenoxyethanol	25-40%
65113-55-5	[4-[p,p'-bis(dimethylamino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium m-[[p-anilinophenyl]azo]benzenesulphonate	12-25%
100-51-6	Benzyl alcohol	7-15%
110-98-5	1, 1'-oxydipropan-2-ol	3-8%
112-80-1	Oleic acid, pure	0.5-2%
90506-69-7	Phosphoric aci, mono- and bis(2-ethylhexyl) esters	0.5-2%
509-34-2	3',6' -bis(diethylamino)spiro[isobenzofuran-1(3H),9'[9H]xanthene]-3-one	0.1-1%
Non dangerous components		
111-90-2	2-(2-ethoxyethoxy)ethanol	0.5-3%
9003-39-8	Polyvinyl pyrrolidone	0.1-2%
25054-06-2	Formaldehyde, polymer with cyclohexanone	17-30%

4. First aid measures

- Description of first aid measures

General information Consult a physician. Show this safety data sheet to the doctor in attendance. After inhalation If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

After skin contact Get medical aid. Flush skin with plenty of water for at least 15 minutes whilst removing contaminated clothing and shoes. Wash clothing before reuse.

After eye contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

After swallowing Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed:

Oral route: Harmful if swallowed.

Skin: Causes skin irritation.

Eye: Causes eye irritation.

Information for the doctor Treat symptomatically and supportively.

Indication of any medical attention and special treatment needed Immediate medical attention is required. Treat symptomatically.

5. Fire-fighting measures

- Extinguishing media

Suitable extinguishing agents Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

For safety reasons unsuitable extinguishing agents Water with full jet.

Special hazards arising from the substance or mixture Carbon monoxide (CO), Carbon dioxide (CO2)

Protective equipment Wear self-contained breathing apparatus for firefighting if necessary.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

Environmental precautions Do not allow product to reach sewage system or any water course.

Methods and material for containment and cleaning up Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Reference to other sections

See section 7 for information on safe handling.

See section 8 for information on personal protection equipment.

7. Handling and storage

Precautions for safe handling Avoid contact with eyes and skin. Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.

Information about protection against explosions and fires Keep ignition sources away – Do not smoke.

Conditions for safe storage, including any incompatibilities.

- Storage

Requirements to be met by storerooms and receptacles Store in well ventilated area. Store in a tightly closed container.

Information about storage in one common storage facility Store away from oxidizing agents.

Further information about storage conditions Store under inert gas.

Specific end use(s) Used as inks for sketch pens, fine liners and all kinds of writing instruments.

8. Exposure controls/personal protection

Control parameters

Components with limit values that require monitoring at the workplace:	
100-51-6 Benzyl alcohol	
WEEL	Long-term value: 10 ppm
111-90-0 2-(2-ethoxyethoxy)ethanol	
WEEL	Long-term value: 25 ppm

- Exposure controls

Personal protective equipment:

General protective and hygienic measures Do not inhale dust/smoke/mist. Keep away from food stuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.

Breathing equipment Half or full facepiece respirator, self-contained breathing apparatus (SCBA), supplied air respirator, etc. Use respirators approved under appropriate government standards and follow local and national regulations.

Protections of hands



Protective gloves

The glove material must be impermeable and resistant to the product/ the substance/ the preparation. Due to missing test no recommendation to the glove material can be given for the product/ the preparation, the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Material of gloves The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

Penetration time of the glove material The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection



Tightly sealed goggles

Body protection Protective work clothing

9. Physical and chemical properties

Information on basic physical and chemical properties General information Appearance:	
Form Colou r Odour	Liquid According to product specification Characteristic
Change in condition. Melting point/Melting range Boiling point/Boiling range	Undetermine d 205°C (401°F)
Flash point	101°C (214°F)
Ignition temperature	435°C (815°F)
Auto igniting	Product is not self-igniting
Danger of explosion	Product does not present an explosion hazard.
Vapour pressure at 20°C (68°F)	0.1 hPa
Density	Not determined
Solubility in/Miscibility with Water Other information	 Not miscible or difficult to mix. No further relevant information available.

10. Stability and reactivity

- Reactivity

Chemical stability

Thermal decomposition / conditions to be avoided: Avoid contact with incompatibles.
Possibility of hazardous reactions Reacts violently with oxidizing agents.
Conditions to avoid No further relevant information available.
Incompatible materials Strong oxidising agent
Hazardous decomposition products Carbon oxides

11. Toxicological information

- Information on toxicological effects

Acute toxicity:

LD/LC50 values that are relevant for classification:		
122-99-6 2-Phenoxyethanol		
Oral Dermal Inhalative	LD50 0 LD50 0 LD50 0	1850 mg/kg bw (rat(Wistar)male/female 14391 mg/kg bw (rat) >1000 mg/m^3 air (nominal) (rat(wistar)male/female)
100-51-6 Benzyl alcohol		
Oral	LD50	1045 mg/kg bw (rat(wistar)male)

Primary irritant effect

On the skin:

CAS No. 110-98-5

Administration of 500 uL/24H of Di Propylene Glycol onto the skin rabbit causes moderate irritating effect.

CAS No.112-80-1

Administration of 500 mg of Oleic Acid onto the skin of rabbit causes mild irritant effect.

On the eye: Eye irritation: CAS No.122-99-6 Animal/Species: Vienna White rabbit cornea score:1.7

Chemosis score:1.3 Iris score:0.7

Result: Irritating to eyes CAS No.110-98-5

Administration of 500 mg of Di Propylene Glycol onto the eye of the rabbits causes mild.

Irritating effect

Sensitization Not sensitising.

Additional toxicological information Harmful

Irritant

- Carcinogenic categories

IARC (International Agency for Research on Cancer)
None of the ingredients is lister.
NTP (National Toxicology Program)
None of the ingredients is listed.
OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12. Ecological information

- Toxicity

Aquatic toxicity:
122-99-6 2-Phenoxyethanol EC50(48-h)
>500 MG/L (Daphnia magna) EC50(72-h) >500 mg/L (Algae) LC50(96 -h) 344 mg/lit (Pimephales Promelas (Fathead Minnow))
100-51-6 Benzyl alcohol EC50(48-h)
230 MG/L (Daphnia magna) EC50(72-h) 770 mg/L (Algae) LC50(96-h) 460 mg/lit (Fish pimephales promelas)
111-90-0 (2-Phenoxyethanol)ethanol
EC50(72-h) 14861 MG/l (Algae) LC50(48-h) 1982 mg/L (Aquatic invertebrate)

Persistence and degradability No further relevant information available.

Bio accumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

- Additional ecological information:

General notes:

Do not allow product to reach ground water, water course or sewage system.

Results of PBT and vPvB

assessment PB Not applicable.

vPvB Not applicable.

Other adverse effects No further relevant information available.

13. Disposable considerations

- Waste treatment methods

Recommendation:

Observe all federal, state, and local environmental regulations. Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

14. Transport information

UN-Number DOT, ADR, ADN, IMDG, IATA	Not applicable
UN proper shipping names DOT, ADR, ADN, IMDG, IATA	Not applicable
Transport hazard class(es) DOT, ADR, ADN, IMDG, IATA Class	Not applicable
Packing group DOT, ADR, IMDG, IATA	Not applicable
Environmental hazards	Not applicable
Special precautions for user	Not applicable
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable
Transport/Additional information: DOT Quantity limitations	On passenger aircraft/rail: No limits On cargo aircraft only: No limits
UN "Model Regulation"	-

15. Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture

- Sara

Section 355 (extremely hazardous substances)
None of the ingredients listed
Section 313 (Specific toxic chemical listing)
None of the ingredients listed
TSCA (Toxic Substances Control Act)
None of the ingredients listed

- Proposition 65

Chemicals known to cause cancer
None of the ingredients listed
Chemicals known to cause reproductive toxicity for females
None of the ingredients listed
Chemicals known to cause reproductive toxicity for males
None of the ingredients listed
Chemicals known to cause developmental toxicity
None of the ingredients listed

- Carcinogenic categories

EPA (Environmental Protection Agency)
None of the ingredients listed
TLV (Threshold Limit Value established by ACGIH)
TLV (ACGIH): 1000 ppm
NIOSH-Ca (National Institute for Occupational Safety and Health)
None of the ingredients listed

Product related hazard information The product has been classified and marked in accordance with directives on hazardous materials.

Hazard-determining components of labelling Benzyl alcohol, 2-Phenoxyethanol.

Safety phrases Keep out of reach of children. Keep away from food, drink and animal feeding stuffs. If swallowed seek medical advice immediately and show this container or label. Dispose of this material and its container to hazardous or special waste collection point.

- National regulations

Other regulations, limitations and prohibitive regulations User to follow national laws and regulations.

Chemical safety assessment A chemical safety assessment has not been carried out.

16. Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Abbreviations and acronyms:

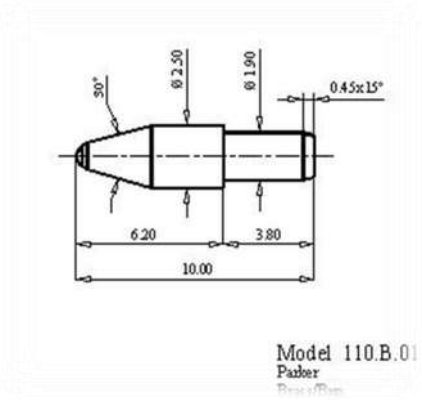
RID: Regalement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organisation
ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)
ADR: Accord European sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Acute Tox. 4: Acute toxicity, Hazard Category 4
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

- Sources

Occupational Safety & Health Administration (OSHA)
https://www.osha.gov/Publications/OSHA3514.html ECHA-registered dossier fpr CAS no. 122-99-6 http://apps.echa.europa.eu/registered/data/dossiers/DISS-9d9ec9aa-68cf-6ad9-e044-00144f67d249/AGGR-6adf5bfd-e074-4533-9e19-5182281e1c29 DISS-9d9ec9aa-68cf-6ad9-e044-
00144f67d249.htmlGEN RESULTS
HD RTECS for CAS No. 110-98-5
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ECHA registered dossier for CAS No. 111-90-0
http://apps.echa.europa.eu/registered/data/dossiers/DISS- 9d828fb4-1e4f-6452-e044-

00144f67d249/DISS-9d828fb4-1e4f-6452-e044-00144f67d249 DISS-9d828fb4-1e4f-6452-e044-00144f67d249.html
ECHA-Registered dossier CAS No.100-51-6
http://apps.echa.europa.eu/registered/data/dossiers/DISS- 9d9b1369-7454-687c-e044-00144f67d249/AGGR-ca164a51-b607-4860-9da9-098ed1ed1856 DISS-9d9b1369-7454-687c-e044-00144f67d249.htmlGEN RESULTS HD

Standard Refill Tip



1.00 mm BNP/TC

It is recommended that prior to and after use, scrapers are cleaned, disinfected & sterilised, as appropriate to their intended use (to minimise risk of microbial Growth and cross contamination, maximising their efficiency and durability).

No warranty is given or implied with respect to this information or patent infringement. Detectamet Ltd do not accept liability for loss or damage arising from the use of this information. Results are based on a test sample, our general experience and information from suppliers. Data and results may be confirmed by the buyer by testing for its intended conditions of use.

Safety You Detect

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