DETECTAMET

Technical Data Sheet

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100-I1*

Cryo Ink Refill

Technical Data Sheet Applicable To:

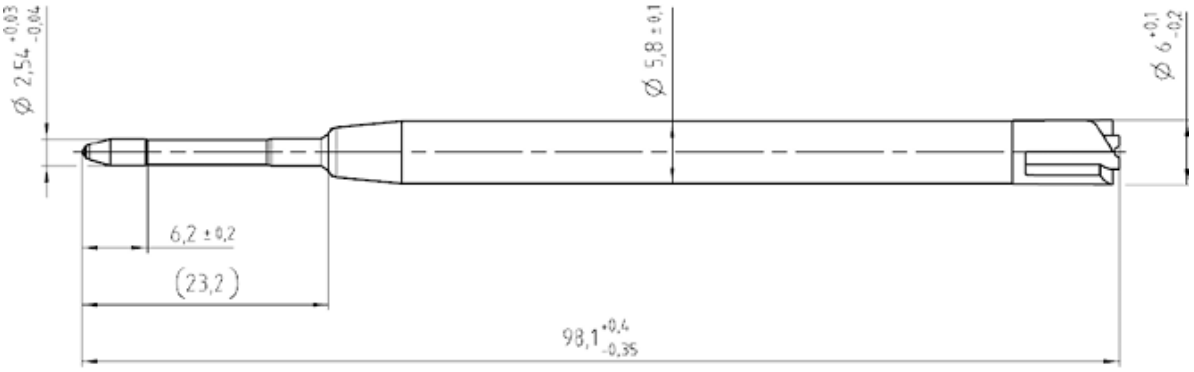
100-I1*	Cryo Pen Refills – Stainless Steel (All colours)

Industry Usage:
Manufactured from stainless steel and non-detectable shatterproof plastic. Partially detectable – does **not** include endcap.

Features and Benefits:
Usage temperatures: -15°c up to 60°c (5 to 140°f)
Writing line width: 1.2mm (47.2mm)
Metal Detectable & X-ray visible body, non-detectable shatter proof plastic end cap
Cryo write out length approx. 6000m (19.685”)

Writing system: Pressurised refill
Ball: TC: 1.0mm (39.37 mil)
Tube: Metal
End Plug: Plastic in ink colour
Cap: Plastic in ink colour
Available writing colours: Blue or Black
Write-out length according to EWIMA: 6000m (+/-) 30%
Packing unit: 100pcs
Weight per packing unit: net 0.45kg (0.99lbs) /gross 0.5kg (1.10lbs)
This product does not contain Crystal Violet (CAS 548-62-9)

Material and Compliance information:



1. Identification

Product Identifier

Trade name: CKS 46/17 Blue

Article number: 100000001436

Registration Number: The ingredients of this product meet the criteria of the Regulation 1907/2006 EC (REACH)

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

Currently no such applications are identified.

Application of the substance/mixture: Ball point pen.

2. Hazard(s) Identification

Classification according to Regulation (EC) No 1272/2008

GHS09 Environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

GHS07

Acute Tox. 4 H302 Harmful if swallowed

Acute Tox. 4 H332 Harmful if inhaled

Eye Irrit. 2 H319 Causes serious eye irritation

STOT SE 3 H319 May cause respiratory irritation

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

Hazard pictograms

GHS07 **GHS09**

Signal word: Warning

Hazard-determining components of labelling:

2-Phenoxyethanol

Solvent blue due

Benzyl alcohol

Hazard statements

H302+H332	Harmful if swallowed or if inhaled
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H411	Toxic to aquatic life with long lasting effects

Precautionary Statements

P261	Avoid breathing dust/fume/gas/mist/vapors/spray
P280	Wear eye protection/face protection
P301+P312	If Swallowed: Call a Poison Center/Doctor if you feel unwell
P305+P351+P338	If in eyes: Rinse cautiously with water for seval minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P405	Store locked up
P501	Dispose of contents/container in accordance with local/regional/national/international regulations

Results of PBT and vPvB assessment

PBT: N/A

vPvB: N/A

3. Composition

Chemical characterization: Mixtures

Description: Mixture of the substance listed below with nonhazardous additions

Dangerous Components		
CAS: 122-99-6 EINECS: 204-589-7 Reg.nr.: 01-2119488943-21	2-Phenoxyethanol  Acute Tox. 4, H302; eye irrit. 2, H319	25-50%
CAS: 100-51-6 EINECS: 202-859-9 Reg.nr.: 01-2119492630-38	Benzyl alcohol  Acute Tox. 4, H302; Acute Tox. 4, H332; eye irrit. 2, H319	10-25%
	Solvent blue dye   Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Acute Tox, H332; eye irrit. 2, H319; STOT SE 3, H335	10-25%

Additional information: For the wording of the listed hazard phrases refer to section 16

4. First-aid Measures

General information: Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident

After inhalation: Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult a doctor if symptoms persist. In case of unconsciousness place patient stably in side position for transportation.

After skin contact: Generally the product does not irritate the skin

After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing: Call for a doctor immediately.

Most important symptoms and effects, both acute and delayed – No further relevant information available.

Indication of any immediate medical attention and special treatment needed – No further relevant information available.

5. Fire-fighting Measures

Extinguishing media: Suitable extinguishing agents – Use fire extinguishing methods suitable to surrounding conditions

Special hazards arising from the substance or mixture: No further relevant information available

Advice for firefighters: Protective equipment. Mount respiratory protective device.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:

Wear protective clothing

Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system

Do not allow to enter sewers/surface or ground water.
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.
Ensure adequate ventilation.
Reference to other sections:
See Section 7 for information on safe handling
See Section 8 for information on personal protective equipment
See Section 13 for disposable information

7. Handling and Storage
Precautions for safe handling:
Ensure good ventilation/exhaustion at the workplace
Prevent formation of aerosols
Information about fire – and explosion protection: No special measures required
Conditions for safe storage, including any incompatibilities:
Storage:
Requirements to be met by storerooms and receptables: No special requirements.
Information about storage in one common storage facility: Not required
Further information about storage conditions: Keep container tightly sealed
Storage class: 10
Specific end uses:
No further relevant information available.

8. Exposure Controls
Control Parameters:
Additional information about design of technical facilities: No further data; see item 7
Ingredients with limit values that require monitoring at the workplace: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace. Additional information. The lists valid during the making were used as basis.

Personal Protective Equipment (PPE)
General protective and hygienic measures
Keep away from foodstuffs, beverages and feed.
Immediatley remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work
Avoid contact with the eyes
Avoid contact with skin.

Respiratory protection
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Protection of hands
The glove material has to be impermeable and resistant to the product/the substance/the preparation. Due to missing tests 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 if only a short-term loading of the glove material by splashes is expected, tricoated gloves with a higher wearability for the better acceptance of the users are recommended.

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 can not be calculated in advance and has therefore to be checked prior to the application. Nitrile rubber, NBR.

Penetration time of 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

9. Physical and Chemical Properties

General Information	
Appearance Form Colour Odour Odour threshold	 Fluid According to product specification Product specification Not determined
Important information on protection of health and environment, and on safety.	
pH-value at 20 °C:	4.5
Change in condition Melting point/freezing point: Initial boiling point and boiling range:	 Undertermined 205°C
Flash point	101°C
Flammability (solid,gas)	Not applicable
Ignition temperature	400°C
Decomposition temperature	Not determined
Auto-ignition temperature	Product is not selfignighting
Explosive properties	Not determined
Explosion limits Lower: Upper:	 1.3 Vol% 13 Vol %
Vapour pressure at 20 °C:	0.07hPa
Density at 20 °C Relative density Vapour density Evaporation rate	1.2 g/cm^3 Not determined Not determined Not determined
Solubility in / Miscibility with water	Not miscible or difficult to mix
Partition coefficient: n-octanol/water:	Not determined
Viscosity: Dynamic at 20 °C: Kinematic:	 120,000 mPas Not determined.
Solvent content: Organic solvents:	 52.3%
Solids content:	46.3%
9.2 Other information	The physical and chemical properties given in Section 9.1 are rough data only, which are partially derived from the component's data of the mixture. These data are no binding product specifications.

10. Stability and Reactivity

Reactivity: No further relevant information available.

Thermal decomposition/conditions to be avoided: No decomposition if used according to specifications

Possibility of hazardous reactions: No dangerous reactions known

Conditions to avoid: No further relevant information available

Incompatible materials: No further relevant information available

Hazardous decomposition products: No dangerous decomposition products known

11. Toxicological Information

Information on toxicological effects

Acute toxicity:

Harmful if swallowed or inhaled

LD/LC50 values relevant for classification		
122-99-6 2-Phenoxyethanol		
Oral	LD50	1,840 mg/kg (rat)

Primary irritant effect

Skin corrosion/irritation: Based on available data, the classification criteria are not met

Serious eye damage/irritation: Causes serious eye irritation

Respiratory or skin sensitization: Based on available data, the classification criteria are not met

Additional toxicological information

CMR Effects (carcinogenity, mutagenicity and toxicity for reproduction)

Germ cell mutagenicity: Based on available data, the classification criteria are not met

Carcinogenicity: Based on available data, the classification criteria are not met

Reproductive toxicity: Based on available data, the classification criteria are not met

STOT-single exposure: May cause respiratory irritation

STOT-repeated exposure: Based on available data, the classification criteria are not met

Aspiration hazard: Based on available data, the classification criteria are not met

12. Ecological Information

Toxicity:

Aquatic toxicity: No further relevant information available

Persistence and degradability: No further relevant information available.

Bioaccumulative potential: No further relevant information available

Mobility in soil: No further relevant information available

Ecotoxical effects:

Remark: Toxic for fish

Additional ecological information

General notes

Water hazard class 3 (German regulation)(Self-assessment): Extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground

Also poisonous for fish and plankton in water bodies

Toxic for aquatic organisms

Results of PBT and vPvB assessment

PBT: Not applicable

vPvB: Not applicable

Other adverse effects: No further relevant information available.

13. Disposal Considerations

Waste treatment methods

Recommendation: Must not be disposed together with household garbage. Do not allow product to reach sewage system.

European waste catalogue	
08 00 00	Waste from the manufacture, formulation, supply and use (MFSU) of coatings (paints, varnishes and vitreous enamels), adhesives, sealants and printing inks.
08 01 00	Wastes from MFSU and removal of paint and varnish.
08 01 13*	Sludges from paint or varnish containing organic solvents orother hazardous substances.

Uncleaned packaging:
Recommendation: disposal must be made according to official regulations

14. Transport Information

14.1 UN-Number · ADR, IMDG, IATA	UN3082
14.2 UN proper shipping name · ADR · IMDG, IATA	3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Benzyl alcohol, Solvent blue dye) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Benzyl alcohol, Solvent blue dye)
14.3 Transport hazard class(es) · ADR Class · Label	 9 (M6) Miscellaneous dangerous substances and articles. 9
IMDG Class Label	 9 Miscellaneous dangerous substances and articles. 9
IATA Class Label	 9 Miscellaneous dangerous substances and articles. 9
14.4 Packing group ADR, IMDG, IATA	III
14.5 Environmental hazards: · Special marking (ADR) Special marking (IATA):	Product contains environmentally hazardous substances: Solvent blue dye Symbol (fish and tree) Symbol (fish and tree)
14.6 Special precautions for user Hazard identification number (Kemler code): EMS Number Stowage Category	Warning: Miscellaneous dangerous substances and articles. 90 F-A,S-F A
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
Transport/Additional information:	
ADR Limited quantities (LQ) Excepted quantities (EQ) Transport category Tunnel restriction code	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 m 3 -
IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 m
UN "Model Regulation":	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BENZYL ALCOHOL, SOLVENT BLUE DYE), 9

15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture
Directive 2012/18/EU
Named dangerous substances – ANNEX I: None of the ingredients are listed
Seveso category: E2 Hazardous to the aquatic environment
Qualifying quantity (tonnes) for the application of lower-tier requirements: 200t
Qualifying quantity (tonnes) for the application of upper-tier requirements: 500t
Regulation (EC) No 1907/2006 Annex XVII Conditions of restriction: 3

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II
None of the ingredients is listed.

National regulations:

Technical instructions (air)

Class	Share in %
NK	50-100

Water hazard class: Water hazard class 3 (Self-assessment): extremely hazardous for water

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.

Relevant phrases

H302: Harmful if swallowed

H319: Causes serious eye irritation

H332: Harmful if inhaled

H335: May cause respiratory irritation

H400: Very toxic to aquatic life

H410: Very toxic to aquatic life with long lasting effects

Abbreviations and acronyms

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations concerning the international transport of dangerous goods by rail)

ICAO: International Civil Aviation Organization

ADR: Accord relative au transport international des marchandises dangereuses par route (European agreement concerning the international carriage of dangerous goods by road)

IMDG: International Maritime Code for Dangerous Goosd

IATA: International Air Transport Association

GHS: Global Harmonised System of Classification and Labelling of Chemicals

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)

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: Very persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

STOT SE 3: Sepcific target organ toxicity (single exposure) – Category 3

Aquatic Acute 1: Hazardous to the aquatic environment – acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment – Long-term aquatic hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment – Long-term aquatic hazard – Category 2

* Data compated to the previous version altered.