DETECTAMET

Technical Data Sheet

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147

Fine Tip Marker Non-Retractable

Technical Data Sheet Applicable To:

147-A06-P0*-MC	Fine Tip Marker Non-Retractable with Metal Clip (All colours)

Industry Usage:
These permanent non-retractable fine tip markers are available in four ink colours

Features and Benefits:

- Metal detectable & X-ray visible
- Writing line width: 0.55mm (21.7 mils)
- Housing colour: Blue
- Ink colours: Blue, black, red or green
- Ink type: Standard

Material and Compliance information:

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

- European Resolution AP (89) 1
- Recommendation IX of the BfR for colouring plastics
- 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 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 supplier 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.

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 Colourants 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 Article 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

Safety data sheet
1 – Identification of the Substance/Mixture
Product identifier
Trade name: MA 2310 Black
Article number: 100000003691
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/the mixture: Alcohol based permanent marking ink.

2 – Hazards Identification
Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008


GHS02 Flame
Flam. Liq 2 H225 Highly flammable liquid and vapor


GHS08 Health Hazard
Muta. 2 H341 Suspected of causing genetic defects


GHS05 Corrosion
Eye Dam. 1 H318 Causes serious eye damage


GHS09 Environment
Aquatic chronic 2 H411 Toxic to aquatic life with long lasting effects


GHS07
Skin Irrit. 2 H315 Causes skin irritation

Label Elements
Labelling according to Regulation (EC) No 1272/2008
The product is classified and labelled according to the CLP regulation

Hazard Pictograms


GHS02 GHS05 GHS08 GHS09

Signal word: Danger

Hazard-determining components of labelling
Phosphoric acid mono-bis-(2-ethylhexyl)-ester
C.I. Solvent Orange 3
Hazard statements
H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H318 Causes serious eye damage.

H341 Suspected of causing genetic defects.
H411 Toxic to aquatic life with long lasting effects.
Precautionary statements
P241 Use explosion-proof [electrical/ventilating/lighting] equipment.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P321 Specific treatment (see on this label).
P362+P364 Take off contaminated clothing and wash it before reuse.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
Additional information
EUH208 Contains C.I. Solvent Blue 4 < 0,1% Michler's Ketone. May produce an allergic reaction

Other hazards
Results of FBT and vPvB assessment
PBT: Not applicable
vPvB: Not applicable

3 – Composition/Information on Ingredients

Chemical Characterisation: Mixtures
Description: Mixture of substances listed below with nonhazardous additions

Dangerous Components		
CAS: 64-17-5 EINECS: 200-578-6 Reg.nr.: 01-2119457610-43	Ethanol Flam. Liq. 2, H225; Eye Irrit. 2, H319	50-100%
CAS: 107-98-2 EINECS: 203-539-1 Reg.nr.: 01-2119457435-35	1-methoxy-2-propanol Flam. Liq. 3, H226; STOT SE 3, H336	2.5-10%
CAS: 12645-31-7 EINECS: 235-741-0 Reg.nr.: 01-2119896587-13	Phosphoric acid mono-bis-(2-ethylhexyl)-ester Skin Corr. 1B, H314	2.5-10%
CAS: 561-41-1 EINECS: 209-218-2 Reg.nr.: 01-2119979581-25	C.I. Solvent Violet 8 Alternative CAS number: 52080-58-7 Acute Tox. 4, H302; Eye Irrit. 2, H319; Aquatic Chronic 3, H412	2.5-10%
CAS: 495-54-5 EINECS: 207-803-7 Reg.nr.: 01-2120754909-37	C.I. Solvent Orange 3 Muta. 2, H341; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Skin Irrit. 2, H315	2.5-10%
CAS: 6786-83-0 EINECS: 229-851-8 Reg.nr.: 01-2119950688-22	C.I. Solvent Blue 4 < 0,1% Michler's Ketone Eye Dam. 1, H318; Skin Sens. 1B, H317	2.5-10%

4 – First Aid Measures

Description of first aid measures
After Inhalation: In case of unconsciousness place patient stably in side position for transportation
After skin contact: Immediately wash with water and soap and rinse thoroughly
After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor
After swallowing: If symptoms persist consult doctor

5 – Firefighting Measures

Extinguishing Media
Suitable extinguishing agents: CO2, Powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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

Advice for firefighters
Protective equipment: No special measures required

6 – Accidental Release Measures
Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away. Wear protective clothing

Environmental precautions
Prevent seepage into sewage system, workpits and cellars.
Inform respective authorities in case of seepage into water course or sewage system
Dilute with plenty of water
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 protection equipment
See Section 13 for disposal information

Handling and Storage

Precautions for safe handling
Ensuring good ventilation/exhaustion at the workplace
Prevent formation of aerosols
Information about fire – and explosion protection:
Keep ignition sources away – Do not smoke
Protect against electrostatic charges

Conditions for safe storage, including any incompatibilities
Storage requirements to be met by storerooms and receptacles: Store in a cool location
Information about storage in one common storage facility: Not required
Further information about storage conditions: Keep container tightly sealed, Store in cool and dry conditions in well-sealed receptacles.
Storage class: 3

8 – Exposure Controls/Personal Protection
Additional information about design of technical facilities: No further data: See item 7

Control Parameters

Ingredients with limit values that require monitoring at the workplace	
107-98-2 1-methoxy-2-propanol (2.5-10%)	
IOELV	Short-term value: 568 mg/m³, 150 ppm Long-term value: 375 mg/m³, 100 ppm Skin

Additional information: The lists valid during the making were used as basis

Exposure controls
Personal Protective Equipment
General protective and hygienic measures
Keep away from foodstuffs, 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

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

Protective Gloves

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, tricoted gloves with higher wearability for the better acceptance of the users are recommended.

Material of the 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

Information on Basic Physical and Chemical Properties

General Information

Appearance Form Colour Odour Odour threshold	 Fluid Black Product specific Not determined
Important information on protection of health and environment, and on safety.	
Change in condition Melting point/freezing point Initial boiling point and boiling range	 Undetermined 78 °C
Flash Point	13 °C
Flammability (solid, gas)	Not applicable.
Ignition temperature	287 °C
Decomposition temperature	Not determined
Auto-ignition temperature	Product is not selfigniting
Explosive properties	Product is not explosive. However, formation ofexplosive air/vapour mixtures are possible
Explosion limits: Lower: Upper:	 1.5 Vol % 15 Vol %
Vapour pressure at 20 °C	59 hPa
Density at 20 °C	0.88 g/cm^3
Solubility in / Miscibility with water	Fully miscible
Partition coefficient: n-octanol/water	Not determined
Viscosity Dynamic at 20 °C	 4.2 mPas
Kinematic	Not determined
Solvent content Organic solvents	 75.2 %
Solids content	19.1 %

10 – Stability and Reactivity

Reactivity
No further relevant information available

Chemical Stability
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: Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification		
12645-31-7 Phosphoric acid mono-bis-(2-ethylhexyl)-ester		
Oral	LD50	3,000 mg/kg (rat)

Primary irritant effect
Skin corrosion/irritation: Causes skin irritation
Serious eye damage/irritation: Causes serious eye damage
Respiratory or skin sensitisation: Based on available data, the classification criteria are not met
Acute effects (Acute toxicity, irritation and corrosivity) Based on the guideline OECD 431 in vitro tests have been performed. These tests proved, that the ink does not show any corrosive effects to the human skin.
CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
Germ cell mutagenicity: Suspected of causing genetic defects
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: Based on available data, the classification criteria are not met
STOT-repeated exposure: Based on available data, the classification criteria are not met
Aspiration hazard: Based on available fata, 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.
Uncleaned Packaging
Recommendation: Disposal must be made according to official regulations
Recommend: Cleansing agents: Water, if necessary together with cleansing agents

14 – Transport information

UN Number

ADR,IMDG,IATA	UN1263

UN Proper Shipping Name

ADR	1263 Paint, environmentally hazardous
IMDG	Paint (chrysoidine), marine pollutant
IADA	Paint

Transport Hazard Classes

ADR  Class Label	3 (F1) Flammable liquids 3
IMDG  Class Label	3 Flammable liquids 3
IATA  Class Label	3 (F1) Flammable liquids 3

Packing Group

ADR,IMDG,IATA	II

Environmental Hazards

Marine Pollutant	Product contains environmentally hazardous substances: Chrysoidine Symbol (fish and tree)

Special Precautions for User
Warning: Flammable Liquids

Danger code (Kemler) EMS Number Stowage category	33 F-E, S-E B

Transport in Bulk according to Annex II of Marpol and the IBC Code

Transport/Additional information	
ADR Limited quantities (LQ) Expected quantities (EQ) Transport category Tunnel restriction code	 5L Code: E2 Maximum net quantity per inner packaging: 30ml Maximum net quantity per outer packaging: 500ml 2 D/E
IMDG Limited quantities (LG) Expected quantites (EG)	 5L Code: E2 Maximum net quantity per inner packaging: 30ml Maximum net quantity per outer packaging: 500ml
UN "Model Regulation"	UN 1263 paint, 3, II, environmentally hazardous

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
P5c Flammable Liquids
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
National regulations
Technical instructions (air)

Class	Share in %
NK	500-100

Waterhazard 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
H225 Highly flammable liquid and vapour. H226 Flammable liquid and vapour.
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.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness. H341 Suspected of causing genetic defects. H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects.

Abbreviations and acronyms
ADR: Accord européen 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
IATA: International Air Transport Association
GHS: Globally 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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 2: Flammable liquids – Category 2
Flam. Liq. 3: Flammable liquids – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation –
Category 1 Eye Irrit. 2: Serious eye damage/eye irritation –
Category 2 Skin Sens. 1B: Skin sensitisation – Category 1B
Muta. 2: Germ cell mutagenicity – Category 2
STOT SE 3: Specific 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
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3