147 – Fine Tip Marker Non-Retractable

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Product Code	Description	Ink Colours
147-A06-P0X	Fine Marker Pen Non-Retractable	Available in Blue, Black, Green, and Red
147-A06-P0X-MC	Detectable Permanent Fine Markers (Pack of 10) - with Metal Clip	Available in Blue, Black, Green, and Red

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 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 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.

1. Identification of the Substance/Mixture

1.1 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).

1.2 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

2.1 Classification of the Substance or Mixture

Classification according to Regulation (EC) No 1272/2008

GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.

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.

2.2 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.

2.3 Other hazards

Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

3. Composition/Information on Ingredients

3.1 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

4.1 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

5.1 Extinguishing media

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

5.2 Special hazards arising from the substance or mixture

No further relevant information available.

5.3 Advice for firefighters

Protective equipment: No special measures required.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.
Wear protective clothing.

6.2 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.

6.3 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.

6.4 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.

7. Handling and Storage

7.1 Precautions for safe handling

Ensure 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.

7.2 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, 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.

8.1 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.

8.2 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 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 trough 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

9.1 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

10.1 Reactivity
No further relevant information available.

10.2 Chemical stability
Thermal decomposition / conditions to be avoided:
No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions
No dangerous reactions known.

10.4 Conditions to avoid
No further relevant information available.

10.5 Incompatible materials
No further relevant information available.

10.6 Hazardous decomposition products
No dangerous decomposition products known.

11. Toxicological Information

11.1 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.
Resiratory or skin sensitisation Based on available data, the classification criteria are not met.
Acute effects (acute toxicity, irritation and corrosivity) Based on the guidline OECD 431 in vitro tests have been performed. These tests proved, that the ink does not show any corrosive effect 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 data, the classification criteria are not met.

12. Ecological Information

12.1 Toxicity
Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability
No further relevant information available.

12.3 Bioaccumulative potential
No further relevant information available.

12.4 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

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.
vPvB: Not applicable.

12.6 Other adverse effects

No further relevant information available.

13. Disposal Considerations

13.1 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.
Recommended cleansing agents: Water, if necessary together with cleansing agents.

14. Transport Information

14.1 UN-Number

ADR, IMDG, IATA	UN1263

14.2 UN Proper Shipping Name

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

14.3 Transport Hazard Class(es)

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

14.4 Packing Group

ADR, IMDG, IATA	II

14.5 Environmental Hazards

Marine Polltant	Product contains environmentally hazardous substances: chrysoidine Symbol (fish and tree)

14.6 Special Precautions for User

Warning Flammable liquids

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

14.7 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

15.1 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 is listed.
Seveso category
E2 Hazardous to the Aquatic Environment
P5c FLAMMABLE LIQUIDS
Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t
Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
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.

15.2 Chemical safety assessment

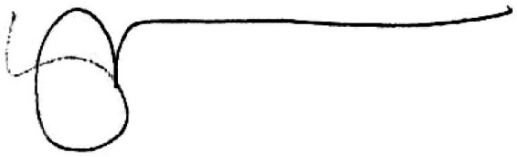
A Chemical Safety Assessment has not been carried out.

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



Helen Morrison
Group Managing Director