Material Safety Data Sheet

SDS date: 26-09-2017 **SDS version: 1.0**

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Trade Name: ACCU DYNE TESTTM Marker Pens
Product- no.: Dyn 43-56

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

Recommended uses: Test liquid for measuring of surface tension. Professional use only.

1.3. Details of the supplier of the safety data sheet

Company and address
Vetaphone A/S
Fabriksvej 11
DK-6000 Kolding
Tlf.: +45 76 30 03 33
Fax: +45 76 30 03 34

Contact person and E-mail:
spareparts@vetaphone.com

The Safety data sheet is completed and validated by:
mediator A/S, Centervej 2, DK-6000 Kolding. Consultant: DH

1.4. Emergency telephone number

NHS: 111.
Use your national or local emergency number - See section 4 “First aid measures”.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

CLP (1272/2008): Repr. 1B;H360FD.
See full text of H-phrases in section 16.

2.2. Label elements

Signal word:
Danger

May damage fertility. May damage the unborn child. (H360FD)

Obtain special instructions before use. (P201)
Do not handle until all safety precautions have been read and understood. (P202)
Wear protective gloves/protective clothing/eye protection/face protection. (P280)
IF exposed or concerned: Get medical advice/attention. (P308+P313)
Store locked up. (P405)

2.3. Other hazards

The product contains a small amount of organic solvents. Repeated exposure to organic solvents may cause damage to the central nervous system and internal organs fx. liver and kidney.

Additional labelling:

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Additional warnings:

-

SECTION 3: Composition/information on ingredients

3.1./3.2. Substances/Mixtures

Substance	EU-Index no.	Cas / EINECS no.	CLP-classification	w/w%	Note
Formamide	616-052-00-8	75-12-7/ 200-842-0	Repr. 1B;H360D	74,7-99	1+2
2-Ethoxyethanol	603-012-00-X	110-80-5/ 203-804-1	Flam Liq. 3;H226, Acute Tox. 4;H302, Acute Tox. 3;H331, Repr. 1B;H360FD	1-25,3	1+2
Basic Violet 1 (Methylviolet 28)	-	8004-87-3/ 616-846-4	Acute Tox. 4;H302, Eye Irrit. 2;H319	0,3	-

1 = The substance is an organic solvent. 2 = The substance is on the candidate list.

For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation: Seek fresh air. Keep victim under observation. Seek medical advice in case of discomfort.

Ingestion: Wash out mouth thoroughly and drink 1-2 glasses of water in small sips. Seek medical advice immediately.

Skin contact: Immediately remove contaminated clothing. Wash skin with soap and water. Seek medical advice immediately.

Eye contact: Flush immediately with water (preferably using eye wash equipment) for at least 5 minutes. Open eye wide. Remove any contact lenses. Seek medical advice.

Additional information: When obtaining medical advice, show the safety data sheet or label. Symptoms: See section 11.

4.2. Most important symptoms and effects, both acute and delayed
Reproductive toxicity: This product contains teratogenic substances which can do long-term damage to human offspring. The effects on the child can be: death, deformity, delayed development, and functional disorders.
Reproductive toxicity: This product contains substances which can do damage to reproductive capacity, e.g. damage to germ cells or hormonal regulation. The effects can be: sterility, reduced fertility, menstruation disorders, etc.
4.3. Indication of any immediate medical attention and special treatment needed
When obtaining medical advice, show the safety data sheet or label.

SECTION 5: Firefighting measures

5.1. Extinguishing media
Extinguish with powder, foam or carbon dioxide. Do not use water stream, as it may spread the fire.
5.2. Special hazards arising from the substance or mixture
Avoid inhalation of vapour and fumes – seek fresh air. Product decomposes in fire conditions and toxic gases such as CO_X may be released. Fire will produce dense black smoke. Hazardous fumes are formed in fire conditions.
5.3. Advice for firefighters
Send contaminated extinguishing water for destruction. If there is a risk of exposure to vapour and flue gases, a self-contained breathing apparatus must be worn.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
See section 8 for type of protective equipment. Avoid breathing and contact with skin and eyes.
6.2. Environmental precautions
Avoid unnecessary release to the environment - See section 12. Notify proper authorities in case of contamination of soil or aquatic environment or discharge to drains.
6.3. Methods and material for containment and cleaning up
Contain and absorb spill with sand or other absorbent material and transfer to suitable waste containers. See section 13 for instructions on disposal.
6.4. Reference to other sections
See above.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
See section 8 for information about precautions for use and personal protective equipment. Work under effective process ventilation. Running water and eye wash equipment must be available.
7.2. Conditions for safe storage, including any incompatibilities
The product should be stored away from food, animal feeding stuffs, medicines, etc. Keep in tightly closed original packaging. Store in a dry, cool, well-ventilated area. Store locked up.
7.3. Specific end use(s)
See section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits according to EH40/2005 Workplace exposure limits (Second edition, 2011):

Substance	Long-term exposure limit	Short-term exposure limit	Note
Formamide	20 ppm - 37 mg/m^3	30 ppm - 56 mg/m^3	-
2-Ethoxyethanol	2 ppm - 8 mg/m^3	-	Sk

Sk = Can be absorbed through the skin.

DNEL and PNEC values:

DNEL – Formamide:

Dermal	Long Term	Systemic effects	Workers	952 µg/kg bw/day
Inhalation	Long Term	Systemic effects	Workers	660 µg/m³
Inhalation	Long Term	Local effects	Workers	6.66 mg/m³

DNEL - 2-Ethoxyethanol:

Dermal	Long Term	Systemic effects	Workers	300 µg/kg bw/day
Inhalation	Long Term	Systemic effects	Workers	83 µg/m³

PNEC – Formamide:

Water	Fresh	500 µg/L
Water	Marine	500 µg/L
Water	Intermittent releases	5 mg/L
Soil	-	151 µg/kg soil dw

PNEC - 2-Ethoxyethanol:

Water	Fresh	1 mg/L
Water	Marine	100 µg/L
Water	Intermittent releases	10 mg/L

8.2. Exposure controls

There are no exposure scenarios for this product.

Appropriate engineering controls:

Wash hands before breaks, before using restroom facilities, and at the end of the work. Wear the personal protective equipment specified below.

Personal protective equipment:

Breathing equipment:	In case of insufficient ventilation, wear respiratory protective equipment. Use air-supplying respiratory protective equipment as the product contains liquids with a low boiling point which are poorly adsorbed on charcoal filters.
Hand protection:	Wear protective gloves made of butyl rubber. Change gloves immediately if contaminated, and wash hands with soap and water.
Eye protection:	Wear safety goggles/face protection.
Body and skin protection:	Wear suitable protective clothing.

Environmental exposure controls:

Make sure that when using the product damming material is available in immediate vicinity. If possible use spillage tray during work.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:	Blue-Violet Liquid
Odour:	Mild - Weak ammonia-like
Odour threshold:	-
pH:	-
Melting point/ Freezing Point (°C):	-
Initial boiling point and boiling range (°C):	> 100
Flash point (°C):	> 60
Evaporation rate:	-
Flammability (solid, gas)	-
Upper / lower flammability or explosion limits (vol-%):	-
Vapour pressure (mbar, 25 °C):	-
Vapour density (air=1)	-
Relative density:	Ca. 1,0-1,13 g/ml
Solubility(ies)	Miscible with water
Partition coefficient: n-octanol/water:	-
Auto-ignition temperature (°C):	-
Decomposition temperature (°C):	-
Viscosity (mm^2/sek):	-
Explosive properties:	-
Oxidising properties:	-

9.2. Other information

Content of solids (%):	-
Surface tension (mN/m, 25 °C):	-

SECTION 10: Stability and reactivity

10.1. Reactivity
Dissolves grease and has an adverse effect on gaskets, some synthetic materials and rubber.

10.2. Chemical stability
The product is stable when used in accordance with the supplier's directions. Combustible at temperatures above the flash point.

10.3. Possibility of hazardous reactions
No risk of hazardous reactions.

10.4. Conditions to avoid
Avoid heating and contact with ignition sources.

10.5. Incompatible materials
Avoid contact with strong oxidising agents, strong bases and aluminium.

10.6. Hazardous decomposition products
Product decomposes in fire conditions or when heated to high temperatures, and toxic gases may be released.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Substance	Route of exposure	Species	Test	Result
Formamide	Oral	Rat	LD50	5325 mg/kg bw
Formamide	Inhalation	Rat	LC50 (4 h)	21 mg/L air
Formamide	Dermal	Rat	LD50	3000 mg/kg bw
2-Ethoxyethanol	Inhalation	Rat	LC50 / 8 h	7.36 mg/L air
2-Ethoxyethanol	Dermal	Rabbit	LD50	3.56 mL/kg bw

Symptoms:

Inhalation: The product releases organic solvent vapours which may cause lethargy and dizziness. At high concentrations, the vapours may cause headache and intoxication.

Ingestion: Ingestion may cause discomfort.

Skin contact: May irritate the skin – may cause reddening. Can be absorbed through the skin with the same symptoms as for inhalation.

Eye contact: May cause eye irritation.

Long term effects:

May damage fertility. May damage the unborn child.

Prolonged or repeated exposure by skin contact or inhalation of vapours may cause damage to the central nervous system.

SECTION 12: Ecological information

12.1. Toxicity

Substance	Test duration	Species	Test	Result
Formamide	96 h	Fish	LC50	6.569 g/L
Formamide	48 h	Daphnia	EC50	500 mg/L
Formamide	72 h	Algae	EC50	500 mg/L
2-Ethoxyethanol	96 h	Fish	LC50	10 g/L
2-Ethoxyethanol	24 h	Daphnia	EC50	10 g/L

12.2. Persistence and degradability

Substance	Biodegradability	Test	Result
Formamide	Yes	OECD Guideline 301 A	99 % after 28 days
2-Ethoxyethanol	Yes	OECD Guideline 301 C	83% after 14 days

12.3. Bioaccumulative potential

Substance	Potential bioaccumulation	LogPow	BCF
Formamide	No	-0.82	-
2-Ethoxyethanol	No	0.32	-

12.4. Mobility in soil

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12.5. Results of PBT and vPvB assessment

The product does not meet the criteria for PBT or vPvB.

12.6. Other adverse effects

None.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Empty packaging must be disposed of through the municipal waste collection service for hazardous waste.

EWC Code
14 06 03

Specific labelling
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Contaminated packaging:
Uncleansed packaging is to be disposed of via the local waste-removal scheme.

SECTION 14: Transport information

The product is not covered by the rules for transport of dangerous goods by road and sea according to ADR and IMDG.

14.1 -14.4.
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14.5. Environmental hazards
-

14.6. Special precautions for user
-

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not relevant.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
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Restrictions for application:
Special care should be applied for employees under the age of 18. Young people under the age of 18 may not carry out any work causing harmful exposure to this product. Young people above 15 years are exempted this rule, if the product is a part of an education/training.
The product is classified as toxic. Sale and storage must follow local regulations for toxic products.

Demands for specific education:
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Additional labelling:
-

15.2. Chemical safety assessment
Chemical safety assessment has not been performed.

SECTION 16: Other information

Other information:
Sources:
EC regulation 1907/2006 (REACH).
Directive 2000/532/EC.
EC Regulation 1272/2008 (CLP).
EC Regulation 178/2002.
EH40/2005 WELs (United Kingdom (UK), 8/2007).
Full text of H-phrases as mentioned in section 2+3:
H226 - Flammable liquid and vapour.
H302 - Harmful if swallowed.
H319 - Causes serious eye irritation.
H331 - Toxic if inhaled.
H360FD - May damage fertility. May damage the unborn child.
Other
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Minor changes have been made in following sections:
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This material safety data sheet replaces version:
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