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

1.1 Product identifier

Trade name

edding Permanent Marker Refill Ink T25, T100, T1000 (red) contained in: edding 500

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

Relevant identified uses of the substance or mixture Refilling ink Uses advised against No data available.

1.3 Details of the supplier of the safety data sheet

Address edding International GmbH Bookkoppel 7 D-22926 Ahrensburg Telephone no. +49 (0) 41 02 / 80 8-0

Information provided by / telephone +49 (0)4102 - 808-0

Advice on Safety Data Sheet sdb_info@umco.de

1.4 Emergency telephone number

For medical advice (in German and English): +49 (0)30 30686 790 (Giftnotruf Berlin)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 (CLP) Flam. Liq. 3; H226 STOT SE 3; H336

Classification information

This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:

Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP

Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3, 4 and 5 of Annex I to CLP.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)

Hazard pictograms



Hazardous component(s) to be indicated on label: 1-methoxy-2-propanol



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| Hazard statements H226 H336 | Flammable liquid and vapour. May cause drowsiness or dizziness. |
|-----------------------------------|--|
| Precautionary statemen | ts |
| P101 | If medical advice is needed, have product container or label at hand. |
| P102 | Keep out of reach of children. |
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P370+P378 | In case of fire: Use water spray, extinguishing powder, foam or CO2 to extinguish. |
| P405 | Store locked up. |
| P501 | Dispose of contents/container to a facility in accordance with local and national regulations. |

2.3 Other hazards

No data available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable. The product is not a substance.

3.2 Mixtures

Chemical characterization

Mixture (preparation)

| | Hazardous ingredients | | | |
|----|-----------------------|-------------------------------------|----------------------------|--------|
| No | Substance name | | Additional information | |
| | CAS / EC / Index / | Classification (EC) 1272/2008 (CLP) | Concentration | % |
| | REACH no | | | |
| 1 | 1-methoxy-2-propa | nol | | |
| | 107-98-2 | Flam. Liq. 3; H226 | < 75.00 | %-b.w. |
| | 203-539-1 | STOT SE 3; H336 | | |
| | 603-064-00-3 | | | |
| | - | | | |
| 2 | ethanol | | pls. refer to footnote (1) | |
| | 64-17-5 | Flam. Liq. 2; H225 | < 10.00 | %-b.w. |
| | 200-578-6 | Eye Irrit. 2; H319 | | |
| | 603-002-00-5 | | | |
| | - | | | |

Full Text for all H-phrases and EUH-phrases: pls. see section 16

(1) Aberrant from/in addition to the classification set out in Annex VI, this substance is classified according to European Regulation (EC) No 1272/2008 (CLP), Article 4 (3), paragraph 2.

| No | Note | Specific concentration limits | M-factor (acute) | M-factor (chronic) |
|----|------|-------------------------------|---------------------|-----------------------|
| 2 | - | Eye Irrit. 2; H319: C >= 50% | - | - |

3.3 Other information

The data subject of this Material Safety Data sheet refer to the ink contained in this product (marker).

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

In case of persisting adverse effects, consult a physician. Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing.

After inhalation

Remove affected person from the immediate area. Ensure supply of fresh air.

After skin contact

Wash off immediately with soap and water. Do NOT use solvents or thinners.



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After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.).

After ingestion

Rinse out mouth and give plenty of water to drink. Call a doctor immediately. Never give anything by mouth to an unconscious person.

- **4.2 Most important symptoms and effects, both acute and delayed** No data available.
- **4.3** Indication of any immediate medical attention and special treatment needed No data available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Alcohol-resistant foam; Extinguishing powder; Carbon dioxide; Water spray jet

Unsuitable extinguishing media High power water jet

5.2 Special hazards arising from the substance or mixture

In the event of fire, the following can be released: Carbon dioxide (CO2); Carbon monoxide (CO)

5.3 Advice for firefighters

Use self-contained breathing apparatus. Cool endangered containers with water spray jet. Suppress gases/vapours/mists with water spray jet. Wear protective clothing.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Refer to protective measures listed in sections 7 and 8. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Keep away sources of ignition.

For emergency responders

No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

6.3 Methods and material for containment and cleaning up

Take up with absorbent material (e.g., sand, kieselguhr, universal binder). Send in suitable containers for recovery or disposal.

6.4 Reference to other sections

No data available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Provide good ventilation at the work area (local exhaust ventilation, if necessary). If workplace exposure limits are exceeded, respiratory protection approved for this particular job must be worn. Product inherent handling risks must be minimised taking the appropriate measures for protection and preventive actions. The working process should be designed to rule out the release of hazardous substances or skin contact as far it is possible by the state of the art.

General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Avoid contact with eyes and skin. Remove soiled or soaked clothing immediately. Do not inhale vapours. Clean skin thoroughly after work; apply skin cream.



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Advice on protection against fire and explosion

Vapours can form an explosive mixture with air. Take precautionary measures against static charges. Keep away from sources of heat and ignition. Use explosion-proof equipment/fittings and non-sparking tools.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep container tightly closed and dry in a cool, well-ventilated place. Protect from heat and direct sunlight.

Requirements for storage rooms and vessels

Containers which are opened must be carefully closed and kept upright to prevent leakage. Always keep in containers of same material as the original one.

Advice on storage assembly

Do not store together with: Acids; Alkalis; Oxidizing agents

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

| No | Substance name | CAS no. | | EC no. | |
|----|---|----------|-------|-----------|-------|
| 1 | 1-methoxy-2-propanol | 107-98-2 | | 203-539-1 | |
| | 2000/39/EWG | | | | |
| | 1-Methoxypropanol-2 | | | | |
| | STEL | 568 | mg/m³ | 150 | ml/m³ |
| | TWA | 375 | mg/m³ | 100 | ml/m³ |
| | Skin resorption / sensibilisation | Skin | | | |
| | List of approved workplace exposure limits (WELs) / I | EH40 | | | |
| | 1-Methoxypropan-2-ol | | | | |
| | STEL | 560 | mg/m³ | 150 | ml/m³ |
| | TWA | 375 | mg/m³ | 100 | ml/m³ |
| | Skin resorption / sensibilisation | Sk | | | |
| 2 | ethanol | 64-17-5 | | 200-578-6 | |
| | List of approved workplace exposure limits (WELs) / I | EH40 | | | |
| | Ethanol | | | | |
| | TWA | 1920 | mg/m³ | 1000 | ml/m³ |

8.2 Exposure controls

Appropriate engineering controls

No data available.

Personal protective equipment

Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

Eye / face protection

Safety glasses with side protection shield (EN 166)

Hand protection

Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product . Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

| Appropriate Material | butyl rubber | | |
|----------------------|--------------|-----|------|
| Material thickness | | 0.5 | mm |
| Breakthrough time | > | 240 | min. |



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Other

Normal chemical work clothing. Environmental exposure controls No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| Form/Colour | | | | |
|---|-------|------|-----|--|
| liquid | | | | |
| red | | | | |
| | | | | |
| Odour characteristic | | | | |
| | | | | |
| Odour threshold | | | | |
| No data available | | | | |
| pH value | | | | |
| Value | appr. | 6.9 | | |
| Boiling point / boiling range | | | | |
| Value | appr. | 108 | °C | |
| Reference pressure | ~~~ | 1013 | hPa | |
| Melting point / melting range | | | | |
| No data available | | | | |
| | | | | |
| Decomposition point / decomposition range | | | | |
| No data available | | | | |
| Flash point | | | | |
| Value | appr. | 28 | °C | |
| Auto-ignition temperature | | | | |
| No data available | | | | |
| Oxidising properties | | | | |
| No data available | | | | |
| | | | | |
| Explosive properties No data available | | | | |
| | | | | |
| Flammability (solid, gas) | | | | |
| No data available | | | | |
| Lower flammability or explosive limits | | | | |
| No data available | | | | |
| Upper flammability or explosive limits | | | | |
| No data available | | | | |
| Vapour pressure | | | | |
| Value | < | 110 | kPa | |
| Reference temperature | | 50 | °° | |



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| Manager damates | | | |
|---------------------------------------|--------------|-------|-------------------|
| Vapour density | | | |
| No data available | | | |
| Evaporation rate | | | |
| No data available | | | |
| Relative density | | | |
| No data available | | | |
| | | | |
| Density | | | 1 |
| Value | appr. | 0.944 | g/cm ³ |
| Reference temperature | | 20 | °C |
| Solubility in water | | | |
| No data available | | | |
| | | | |
| Solubility(ies) | | | |
| No data available | | | |
| Partition coefficient: n-octanol/wate | er | | |
| No data available | | | |
| Viscosity | | | |
| Value | oppr | 13 | Sec |
| Reference temperature | appr. | 20 | °C |
| Туре | Efflux time | 20 | 0 |
| Method | DIN cup 4 mm | | |
| | | | |
| Solvent separation test | | | |
| Value | < | 3 | % |
| Reference temperature | | 20 | °C |

9.2 Other information

Other information

The physical data is that of the main component/s.

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable under recommended storage and handling conditions (See section 7).

| 10.3 | Possibility of hazardous reactions |
|------|---|
| | Formation of hydrogen gas upon contact with materials to avoid. Explosion hazard. |

10.4 Conditions to avoid Heat, naked flames and other ignition sources. Protect from humid air and water.

- **10.5** Incompatible materials Acids; Alkalis; Oxidizing agents
- **10.6 Hazardous decomposition products** Hydrogen



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SECTION 11: Toxicological information

11.1 Information on toxicological effects

| Acute oral toxicity | | | | |
|--|--------------|----------|---------|------------------|
| No Substance name | | CAS no. | | EC no. |
| 1 1-methoxy-2-propanol | | 107-98-2 | | 203-539-1 |
| LD50 | | | 5660 | mg/kg bodyweight |
| Species | rat | | | |
| Source | Manufacturer | • | | |
| Acute dermal toxicity | | | | |
| No Substance name | | CAS no. | | EC no. |
| 1 1-methoxy-2-propanol | | 107-98-2 | | 203-539-1 |
| LD50 | | | 9999.99 | mg/kg bodyweight |
| Species | rabbit | | | |
| Source | Manufacturer | • | | |
| Acute inhalational toxicity | | | | |
| No data available | | | | |
| Skin corrosion/irritation | | | | |
| No data available | | | | |
| Serious eye damage/irritation | | | | |
| No data available | | | | |
| Respiratory or skin sensitisation | | | | |
| No data available | | | | |
| Germ cell mutagenicity | | | | |
| No data available | | | | |
| Reproduction toxicity | | | | |
| No data available | | | | |
| Carcinogenicity | | | | |
| No data available | | | | |
| STOT-single exposure | | | | |
| No data available | | | | |
| STOT-repeated exposure | | | | |
| No data available | | | | |
| Aspiration hazard | | | | |
| No data available | | | | |
| Delayed and immediate effects as well as chronic effects from short and long-term exposure | | | | |

Inhalation of solvent vapours in higher concentration may lead to nausea, headache, drowsiness and dizziness. Repeated and prolonged skin contact may cause removal of natural fat from the skin and irritation of the skin.



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SECTION 12: Ecological information

12.1 Toxicity

| - |
|-------------------------------|
| Toxicity to fish (acute) |
| No data available |
| Toxicity to fish (chronic) |
| No data available |
| Toxicity to Daphnia (acute) |
| Toxicity to Daphinia (acute) |
| No data available |
| Toxicity to Daphnia (chronic) |
| No data available |
| Toxicity to algae (acute) |
| No data available |
| |
| Toxicity to algae (chronic) |
| No data available |
| Bacteria toxicity |

No data available

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential No data available.

- **12.4 Mobility in soil** No data available.
- **12.5 Results of PBT and vPvB assessment** No data available.
- **12.6 Other adverse effects** No data available.

12.7 Other information

Other information Do not discharge product unmonitored into the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging

Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.



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| SEC | TION 14: Transport informa | tion | |
|----------|---|---|----------------------------|
| 14.1 | | 3 F1 III 30 UN1263 PAINT RELATED MATERIAL 640E D/E 3 | |
| 14.2 | Transport IMDG Class Packing group UN number Proper shipping name EmS Label | 3 III UN1263 PAINT RELATED MATERIAL F-E+S-E 3 | |
| 14.3 | Transport ICAO-TI / IATA Class Packing group UN number Proper shipping name Label | 3 III UN1263 Paint related material 3 | |
| 14.4 | Other information No data available. | | |
| 14.5 | | ards, if relevant, please see 14.1 - 14.3. | |
| 14.6 | Special precautions for user No data available. | | |
| 14.7 | Transport in bulk according t Not relevant | o Annex II of Marpol and the IBC Code | |
| SEC | TION 15: Regulatory inform | ation | |
| 15.1 | Safety, health and environme <u>EU regulations</u> | ntal regulations/legislation specific for the su | bstance or mixture |
| Ac su | cording to the data available and/or | CH) Annex XIV (List of substances subject to authors specifications supplied by upstream suppliers, this provide requiring authorisation as listed on Annex XIV of the F | oduct does not contain any |
| Ac su | cording to available data and the inf bstances that are considered substa | s of very high concern (SVHC) for authorisation ormation provided by preliminary suppliers, the produc inces meeting the criteria for inclusion in annex XIV (L 57 and article 59 of REACH (EC) 1907/2006. | |
| TH | E MARKET AND USE OF CERTAI | CH) Annex XVII: RESTRICTIONS ON THE MANUFA N DANGEROUS SUBSTANCES, PREPARATIONS A | |
| Th | | ct to REACH regulation (EC) 1907/2006 annexe | No 3, 40 |

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances

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P5c

This product is subject to Part I of Annex I, risk category:



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15.2 Chemical safety assessment

No data available.

SECTION 16: Other information

Sources of key data used to compile the data sheet:

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EU

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding chapter.

Full text of the H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

| H225 | Highly flammable liquid and vapour. |
|------|-------------------------------------|
| H319 | Causes serious eye irritation. |

Department issuing safety data sheet

UMCO GmbH

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This information is based on our present knowledge and experience.

The safety data sheet describes products with a view to safety requirements.

It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

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