



Marabu

**MATERIAL SAFETY DATA SHEET**

FOR PRINTING INK AND RELATED MATERIALS  
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Thinner  
Quick Identifier

**TPV**

|                        |   |                     |          |
|------------------------|---|---------------------|----------|
| <b>HAZARD RATINGS</b>  |   | <b>HEALTH</b>       | <b>1</b> |
| Minimal                | 0 | <b>FLAMMABILITY</b> | <b>2</b> |
| Slight                 | 1 | <b>REACTIVITY</b>   | <b>0</b> |
| Moderate               | 2 |                     |          |
| Serious                | 3 |                     |          |
| Severe                 | 4 |                     |          |
| Personal Protection SC |   |                     |          |

**SECTION I**

|  |  |
|--|--|
| MANUFACTURER'S NAME:                                       | Marabuwerke GmbH & Co.                       |
| ADDRESS:   | Asperger Str. 4                              |
| CITY, STATE and ZIP:                                       | D-71732 Tamm/Germany                         |
| EMERGENCY TELEPHONE No.:                                   | 800-424-9300 (within the USA and Canada)     |
| OTHER INFORMATION CALLS:                                   | 01149-7141-691-0 (phone from USA and Canada) |
| DATE PREPARED:   | 10.06.1999                                   |
| SIGNATURE OF PERSON RESPONSIBLE FOR PREPARATION (optional) | Dipl. Chem. Gabriele Heller                  |

**SECTION II HAZARDOUS INGREDIENTS**

| HAZARDOUS COMPONENT(S)<br>(chemical and common name(s)) | OSHA PELs |           | ACGIH TLVs |           | %<br>(optional) | CAS No.  |
|---|-----------|-----------|------------|-----------|-----------------|----------|
|   | TWA       | STEL/CEIL | TWA        | STEL/CEIL |                 |          |
| Propylene glycol-1-methyl ether-2-acetate               | n.e.      | n.e.      | n.e.       | n.e.      | 95 -100         | 108-65-6 |

**SECTION III PHYSICAL & CHEMICAL CHARACTERISTICS**

|   |                                   |
|---|-----------------------------------|
| BOILING POINT                           | 145 °C                            |
| SPECIFIC GRAVITY (H <sub>2</sub> O = 1) | 0,97                              |
| VAPOR PRESSURE (mm Hg)                  | 3                                 |
| VAPOR DENSITY (Air = 1)                 | heavier than air                  |
| VOLATILE ORGANIC COMPOUNDS              | 970 g/l                           |
| SOLUBILITY IN WATER                     | appreciable (parts of solvents)   |
| REACTIVITY IN WATER                     | none                              |
| APPEARANCE and ODOR                     | clear liquid, characteristic odor |
| MELTING POINT                           | n.a.                              |

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**SECTION IV FIRE & EXPLOSION DATA**


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|                                    |   |             |            |
|------------------------------------|---|-------------|------------|
| FLASH POINT                        | 44 °C   | METHOD USED | closed cup |
| FLAMMABLE LIMITS in Air % by Vol.  | LEL 1,5   | UEL         | 10,8       |
| AUTO-IGNITION TEMPERATURE          | 315 °C  |             |            |
| EXTINGUISHER MEDIA                 | foam, carbon dioxide, chemical powder, sand   |             |            |
| SPECIAL FIRE FIGHTING PROCEDURES   | Full protective equipment including self-contained breathing apparatus should be used. Water spray may be ineffective. Water is not mixable with a lot of organic solvents and such solvents will spread on the water surface. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up due to extreme heat.  |             |            |
| UNUSUAL FIRE AND EXPLOSION HAZARDS | Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Avoid heat, open flames, static electricity, electrical equipment and sparks. Preparation may charge electrostatically: always use earthing leads when transferring from one container to another. Keep container tightly closed. Closed containers may explode when exposed to extreme heat. Application to hot surfaces requires special precautions. |             |            |

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**SECTION V PHYSICAL HAZARDS (REACTIVITY DATA)**


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|--------------------------------------|--|--------|------------------------|----------------------|
| STABILITY                            | UNSTABLE<br>STABLE   | O<br>X | CONDITIONS<br>TO AVOID | high<br>temperatures |
| INCOMPATIBILITY (Materials to avoid) | strong acids, alkalies or oxidizers  |        |                        |                      |
| HAZARDOUS DECOMPOSITION PRODUCTS     | None, provided the product is adequately stored and handled. In case of fire, mainly carbon dioxide, carbon monoxide and soot may be formed. |        |                        |                      |
| HAZARDOUS POLYMERISATION             | MAY OCCUR<br>WILL NOT OCCUR  | O<br>X | CONDITIONS<br>TO AVOID |                      |

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**SECTION VI HEALTH HAZARDS**


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| 1. ACUTE  | irritant   | 2. CHRONIC |
|---|--|------------|
| SIGNS and SYMPTOMS of EXPOSURE                      | Irritating to eyes.<br>Inhalation can cause headaches, dizziness, tiredness and nausea. Prolonged or repeated inhalation may affect the nervous system and cause kidney and liver complaints.<br>Danger of absorption by the skin. Dries the skin. Repeated contact with the skin may lead to inflammation.<br>Vapors and the liquid itself will irritate the eyes.<br>If swallowed, stomach complaints and irritation of the digestive organs may result. |            |
| MEDICAL CONDITIONS GENERALLY AGGRAVATED by EXPOSURE | none are known   |            |

|                                    |  |   |
|------------------------------------|--|---|
| CARCINOGENITY                      | NATIONAL TOXICOLOGY PROGRAM  | No  |
|                                    | I.A.R.C. MONOGRAPHS  | No  |
|                                    | OSHA   | No  |
|                                    | EPA  | No  |
| EMERGENCY and FIRST AID PROCEDURES | Take off all contaminated clothes.<br>In all cases of doubt, or when symptoms persist, seek medical attention. |   |
| ROUTES OF ENTRY                    | 1. Inhalation  | Remove to fresh air and keep warm. If breathing is difficult: artificial respiration. Call for a physician. |
|                                    | 2. Eyes  | Rinse immediately with plenty of water. Take to a physician for medical treatment.                          |
|                                    | 3. Skin  | Wash immediately with plenty of water and soap.   |
|                                    | 4. Ingestion   | Seek medical advice immediately. Do not induce vomiting.  |

**SECTION VII SPECIAL PRECAUTIONS AND SPILL / LEAK PROCEDURES**

|   |   |
|---|---|
| PRECAUTIONS to be TAKEN in HANDLING and STORAGE           | FOR INDUSTRIAL USE ONLY! Use only in well ventilated areas. Keep away from sources of ignition. Prevent the creation of flammable or explosive concentrations of vapor in air. Avoid high vapor concentrations. Keep container tightly closed. When using do not eat, drink or smoke. Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Do not empty into drains. |
| STEPS to be TAKEN in CASE MATERIAL is RELEASED or SPILLED | Remove sources of ignition. Ventilate area. Do not breathe vapors. Remove by using suitable inert liquid absorbing material, e.g. kieselgur. Clean preferably with a detergent, avoid use of solvents.  |
| WASTE DISPOSAL METHODS                                    | Dispose of or incinerate in accordance with local, state and federal regulations.   |

**SECTION VIII SPECIAL PROTECTION INFORMATION / CONTROL MEASURES**

|   |  |                |   |
|---|--|----------------|---|
| RESPIRATORY PROTECTION (SPECIFIC TYPE)  | In case of high vapor concentrations, use approved respirators for organic vapors or approved self contained breathing apparatus. Its use must be in compliance with all OSHA health and fit testing requirements. Use respiratory protection when spray painting. |                |   |
| VENTILATION   | LOCAL EXHAUST  | Yes            | MECHANICAL (GENERAL)                      |
|   |  |                | Yes                                       |
|   |  |                | SPECIAL OTHER                             |
| Use and store with adequate ventilation, to keep exposure as low as possible. |  |                |   |
| PROTECTIVE GLOVES   | use when contact may occur   | EYE PROTECTION | use safety-goggles when contact may occur |
| OTHER PROTECTIVE CLOTHING or EQUIPMENT  | use apron if necessary to prevent skin contact   |                |   |
| WORK/HYGIENIC PRACTICES   | When using do not eat, drink or smoke. Wash hands thoroughly before eating, drinking or using toilet facilities. Use re-greasing skin cream.   |                |   |

The information contained herein is based on technical data believed to be reliable. However, since the conditions under which this information may be applied are beyond our control, we can assume no liability for results of its application. This information should be used only by persons having sufficient technical skill to make informed judgements regarding its application.

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**A D D E N D U M**

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**S A R A T I T L E I I I   S E C T I O N 3 1 3   S U P P L I E R N O T I F I C A T I O N**

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The purpose of this addendum is to identify ingredients in this product that are chemical subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372. We as a supplier, are required to report this information to you on an annual basis with your first order of each product for the year.

Listed below are the chemicals in this product that are subject to reporting under Section 313. The CAS number and weight percent follow the compound name.

| SHADE | SECTION 313 CHEMICAL | CAS-NO. | % |
|-------|----------------------|---------|---|
| --    | none                 |         |   |

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