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

- **1.1 Product identifier**
  · Trade name: TAFIGEL® PUR 61

- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
  No further relevant information available.

- **Application of the substance / the mixture** Rheology modifier

- **1.3 Details of the supplier of the safety data sheet**
  · Manufacturer/Supplier:
  MÜNZING CHEMIE GmbH
  Münzingstrasse 2
  74232 Abstatt, Germany
  E-Mail: info@munzing.com
  Tel.: +49 7131 987-100

- **Further information obtainable from:**
  · Product Safety Department
  · E-mail (MSDS): mds@munzing.com

- **1.4 Emergency telephone number:** For Chemical Emergencies: CHEMTREC: +1 703 741 5970

**SECTION 2: Hazards identification**

- **2.1 Classification of the substance or mixture**
  Classification according to Regulation (EC) No 1272/2008
  The product is not classified, according to the CLP regulation.

- **2.2 Label elements**
  · Labelling according to Regulation (EC) No 1272/2008 Void
  · Hazard pictograms Void
  · Signal word Void
  · Hazard statements Void

- **2.3 Other hazards**
  · Results of PBT and vPvB assessment
  · PBT: None.
  · vPvB: None.

**SECTION 3: Composition/information on ingredients**

- **3.2 Chemical characterisation: Mixtures**
  · Description: Polyurethane dispersion

- **Dangerous components:** Void

**SECTION 4: First aid measures**

- **4.1 Description of first aid measures**
  · General information: Immediately remove any clothing soiled by the product.
  · After inhalation:
    Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
  · 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.

- **4.2 Most important symptoms and effects, both acute and delayed**
  No further relevant information available.

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Safety data sheet
according to 1907/2006/EC, Article 31

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· 4.3 Indication of any immediate medical attention and special treatment needed
   No further relevant information available.

(SECTION 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.
    Use fire extinguishing methods suitable to surrounding conditions.
  · For safety reasons unsuitable extinguishing agents: Water with full jet
  · 5.2 Special hazards arising from the substance or mixture
    In case of fire, the following can be released:
    Nitrogen oxides (NOx)
    Carbon monoxide (CO)
  · 5.3 Advice for firefighters
    · Protective equipment: Do not inhale explosion gases or combustion gases.
    · Additional information
      Product contains water and is non-combustible.
      Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

(SECTION 6: Accidental release measures)

· 6.1 Personal precautions, protective equipment and emergency procedures
  Wear protective clothing.
  Particular danger of slipping on leaked/spilled product.
· 6.2 Environmental precautions:
  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).
· 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.

(SECTION 7: Handling and storage)

· 7.1 Precautions for safe handling
  No special precautions are necessary if used correctly.
  · Information about fire - and explosion protection:
    Protect from heat.
    The product is not flammable.
· 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: Store in cool, dry conditions in well sealed receptacles.
· 7.3 Specific end use(s)
  No further relevant information available.

(Contd. on page 3)
SECTION 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: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

- Personal protective equipment:
  - General protective and hygienic measures: The usual precautionary measures are to be adhered to when handling chemicals. Avoid contact with the eyes and skin.
  - Respiratory protection: Use suitable respiratory protective device only when aerosol or mist is formed.
  - Protection of hands: Only use chemical-protective gloves with CE-labelling of category III. The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
  - Material of gloves Nitrile rubber, NBR
    Recommended thickness of the material: ≥ 0.4 mm
    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.
  - Penetration time of glove material
    For the mixture of chemicals mentioned below the penetration time has to be at least 480 minutes (Permeation according to EN 374 Part 3: Level 6).
    The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.
    The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
  - Eye protection: Safety glasses
  - Body protection: Protective work clothing

SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties

  - General Information
    - Appearance:
      - Form: Fluid
      - Colour: Yellowish
      - Odour: Characteristic
      - Odour threshold: Not determined.
    - pH-value (20 g/l) at 20 °C: ≈ 7 (DIN ISO 976)
    - Change in condition
      - Melting point/freezing point: Undetermined.
      - Initial boiling point and boiling range: ≈ 100 °C
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- Flash point: > 100 °C (DIN EN ISO 2719)
- Flammability (solid, gas): Not applicable.
- Ignition temperature: Not determined.
- Decomposition temperature: Not determined.
- Auto-ignition temperature: Product is not selfigniting.
- Explosive properties: Product does not present an explosion hazard.
- Explosion limits:  
  Lower: Not determined.
  Upper: Not determined.
  Oxidising properties: None.
- Vapour pressure: Not determined.
- Density at 20 °C: ≈ 1.05 g/cm³ (DIN EN ISO 2811-1)
  Relative density: Not determined.
  Vapour density: Not determined.
  Evaporation rate: Not determined.
- Solubility in / Miscibility with water: Fully miscible.
- Partition coefficient: n-octanol/water: Not determined.
- Viscosity:  
  Dynamic at 20 °C: ≈ 10000 mPas (DIN EN ISO 3219)
- Solvent content:  
  Water: ≈ 60 %
- 9.2 Other information: No further relevant information available.

SECTION 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 and stored 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.

SECTION 11: Toxicological information

- 11.1 Information on toxicological effects
  - Acute toxicity: Based on available data, the classification criteria are not met.
  - Primary irritant effect:
  - Skin corrosion/irritation: Based on available data, the classification criteria are not met.
  - Serious eye damage/irritation: Based on available data, the classification criteria are not met.
  - Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.
  - CMR effects (carcinogenity, mutagenicity and toxicity for reproduction): Based on available data, the classification criteria are not met.

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· 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.

SECTION 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.
· Ecototoxic effects:
  · Behaviour in sewage processing plants:
    Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations. Do not release untreated into natural waters.
· Additional ecological information:
  · General notes:
    At present there are no ecotoxicological assessments.
    Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
    Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
· 12.5 Results of PBT and vPvB assessment
  According to Annex XIV of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.
  Self classification.
· 12.6 Other adverse effects: No further relevant information available.

SECTION 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.
  · European waste catalogue
    07 02 08* other still bottoms and reaction residues
  · Uncleaned packaging:
    · Recommendation: Disposal must be made according to official regulations.
    · Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport information

· 14.1 UN-Number
  · ADR/RID/ADN, ADN, IMDG, IATA: Void
· 14.2 UN proper shipping name
  · ADR/RID/ADN, ADN, IMDG, IATA: Void

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SECTION 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.
  - National regulations:
    - Water hazard class: Water hazard class 1 (German AwSV, Self-assessment): slightly hazardous for water.
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 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.

- Department issuing SDS:
  Product Safety Department
  E-Mail: msds@munzing.com

- 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)
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative