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

Printing date 19.01.2012
Revision: 19.01.2012

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

- Product identifier
- Trade name: MR® 750 Ultrasonic coupling agent
- Type of packaging: bulk
- Relevant identified uses of the substance or mixture and uses advised against
  Application of the substance / the preparation: Couple gel for ultrasonic testing, technically
- Details of the supplier of the safety data sheet
  Manufacturer/Supplier:
  Hersteller:
  MR-Chemie GmbH
  Nordstr. 61-63
  D-59427 Unna
- Further information obtainable from:
  MR® Chemie GmbH, Development, Tel.: 0049(0)2303/95151-18, QS@mr-chemie.de
- Emergency telephone number:
  For Chemical Emergency, Spill, Leak, Fire, Exposure or Accident
  Call Day or Night within USA and Canada: 1 800 424 9300
  Outside USA and Canada: 001 703 527 3887
  (WISAG FMO Cargo Service GmbH & Co.KG)

2 Hazards identification

- Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008
  The product is not classified according to the CLP regulation.
- Classification according to Directive 67/548/EEC or Directive 1999/45/EC
  Not applicable.
- Information concerning particular hazards for human and environment:
  The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- Classification system:
  The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
- Label elements
- Labelling according to EU guidelines:
  Observe the general safety regulations when handling chemicals.
  The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).
- Special labelling of certain preparations:
  Safety data sheet available for professional user on request.
- Other hazards
- Results of PBT and vPvB assessment
  PBT: Not applicable.
  vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture of substances listed below with nonhazardous additions.

(Contd. on page 2)
Trade name: MR® 750 Ultrasonic coupling agent

**Dangerous components:**

<table>
<thead>
<tr>
<th>CAS: 3586-55-8</th>
<th>(Ethylendioxy)dimethanol</th>
<th>Acute Tox. 4, H302</th>
<th>Xn R22</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 102-71-6</td>
<td>2,2',2''-nitrotrithanol</td>
<td>Substance with a Community workplace exposure limit</td>
<td>&lt;1.0%</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>2-aminoethanol</td>
<td>C R34; Xn R20/21/22</td>
<td></td>
</tr>
</tbody>
</table>

**Additional information:**

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

**4 First aid measures**

- **Description of first aid measures**
  - **General information:** Immediately remove any clothing soiled by the product.
  - **After inhalation:** Supply fresh air; consult doctor in case of complaints.
  - **After skin contact:**
    - If skin irritation continues, consult a doctor.
    - Immediately wash with water and soap and rinse thoroughly.
  - **After eye contact:**
    - Rinse opened eye for several minutes under running water. Then consult a doctor.
  - **After swallowing:** If symptoms persist consult doctor.
  - **Information for doctor:**
    - Grease with skin-cream to restore fat film in order to prevent skin inflammation.
  - **Most important symptoms and effects, both acute and delayed**
    - No further relevant information available.
  - **Indication of any immediate medical attention and special treatment needed**
    - No further relevant information available.

**5 Firefighting measures**

- **Extinguishing media**
  - CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Suitable extinguishing agents:**
  - Organic cracked products
  - In case of fire, the following can be released:
    - Carbon monoxide (CO)
- **Advice for firefighters**
  - Wear self-contained respiratory protective device.
  - Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures**
  - Avoid contact with eyes and skin.
  - Particular danger of slipping on leaked/spilled product.
- **Environmental precautions:** Do not allow to enter sewers/surface or ground water.
  - **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.
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* Reference to other sections
No dangerous substances are released.
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

(Contd. of page 2)

7 Handling and storage

- Handling:
  - Precautions for safe handling
    Avoid contact with skin and eyes.
    Open and handle receptacle with care.
  - Information about fire - and explosion protection: No special measures required.

- Conditions for safe storage, including any incompatibilities

- Storage:
  - Requirements to be met by storerooms and receptacles:
    Store frost-protected.
    Store in a cool location.
    Condition of the tanks and stockrooms is to be co-ordinated with the responsible authorities.
    Keep receptacles tightly sealed.
  - Information about storage in one common storage facility: Store away from foodstuffs.
  - Further information about storage conditions: Protect from heat and direct sunlight.
  - Specific end use(s) No further relevant information available.

* 8 Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.

- Control parameters

<table>
<thead>
<tr>
<th>Ingredients with limit values that require monitoring at the workplace:</th>
</tr>
</thead>
<tbody>
<tr>
<td>102-71-6 2,2',2'''-nitrilotriethanol</td>
</tr>
<tr>
<td>MAK (Germany)</td>
</tr>
<tr>
<td>141-43-5 2-aminoethanol</td>
</tr>
<tr>
<td>IOELV (EU) Short-term value: 7.6 mg/m³, 3 ppm</td>
</tr>
<tr>
<td>Long-term value: 2.5 mg/m³, 1 ppm</td>
</tr>
<tr>
<td>Skin</td>
</tr>
<tr>
<td>WEL (Great Britain) Short-term value: 7.6 mg/m³, 3 ppm</td>
</tr>
<tr>
<td>Long-term value: 2.5 mg/m³, 1 ppm</td>
</tr>
<tr>
<td>Sk</td>
</tr>
<tr>
<td>AGW (Germany) Long-term value: 5.1 mg/m³, 2 ppm</td>
</tr>
<tr>
<td>2(I); DFG, EU, H, Y</td>
</tr>
</tbody>
</table>

- Additional information: The lists valid during the making were used as basis.

- Exposure controls
- Personal protective equipment:
- General protective and hygienic measures:
  The usual precautionary measures are to be adhered to when handling chemicals.
- Respiratory protection: Not necessary if room is well-ventilated.

- Protection of hands:
  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

(Contd. on page 4)
Material of gloves
Rubber 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.

Penetration time of glove material
The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: With danger of the eye contact closing eye protector.

Body protection: Protective work clothing

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:
- Form: gel
- Colour: Blue
- Odour: Characteristic
- Odour threshold: Not determined.

pH-value: Not determined.

Change in condition
- Melting point/Melting range: Undetermined.
- Boiling point/Boiling range: 100°C

Flash point: Not applicable.

Flammability (solid, gaseous): Not applicable.

Ignition temperature: 410°C

Decomposition temperature: Not determined.

Self-igniting: Product is not selfigniting.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:
- Lower: 3.2 Vol %
- Upper: 53.0 Vol %

Vapour pressure at 20°C: 23 hPa

Density at 20°C: 1 g/cm³
Relative density: Not determined.
Vapour density: Not determined.
Evaporation rate: Not determined.

Solubility in / Miscibility with water: Not miscible or difficult to mix.

Segregation coefficient (n-octanol/water): Not determined.

Viscosity:
- Dynamic: Not determined.
- Kinematic: Not determined.
Organic solvents: 1.5 %
Water: 95.4 %
VOC (EU) 0 %
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Solids content: 0.8 %
- Other information: No further relevant information available.

10 Stability and reactivity

- Reactivity
- Chemical stability
- Thermal decomposition / conditions to be avoided:
  No decomposition if used according to specifications.
- Possibility of hazardous reactions: No dangerous reactions known.
- Conditions to avoid: No further relevant information available.
- Incompatible materials: Strong oxidizing agents, alkalis and acids.
- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
- Acute toxicity:
  - Primary irritant effect:
    - on the skin: No irritant effect.
    - on the eye: No irritating effect.
  - Sensitization: No sensitizing effects known.
- Additional toxicological information:
  The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.
  When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

12 Ecological information

- Toxicity
  - Aquatic toxicity: No further relevant information available.
  - Persistence and degradability: No further relevant information available.
- Behaviour in environmental systems:
  - Bioaccumulative potential: No further relevant information available.
  - Mobility in soil: No further relevant information available.
- Additional ecological information:
  - General notes:
    Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
    Water hazard class 1: weakly water-endangering
  - Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.
  - Other adverse effects: No further relevant information available.

13 Disposal considerations

- Waste treatment methods
- Recommendation: Smaller quantities can be disposed of with household waste.
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- Waste disposal key:
  For this product no waste key number can be specified, because only the intended purpose permits an allocation. The waste key number is to be specified in arrangement with the regional waste disposal.

- European waste catalogue
  07 06 99 wastes not otherwise specified
  15 01 02 plastic packaging

- Uncleaned packaging:
  - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
  - ADR, ADN, IMDG, IATA Void

- UN proper shipping name
  - ADR, ADN, IMDG, IATA Void

- Transport hazard class(es)
  - ADR, ADN, IMDG, IATA
    - Class Void

- Packing group
  - ADR, IMDG, IATA Void

- Environmental hazards:
  - Marine pollutant: No

- Special precautions for user Not applicable.

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

- UN "Model Regulation": -

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture

- National regulations:

- Waterhazard class:
  Water hazard class 1: slightly hazardous for water. (In accordance with classification VwVwS, appendix 4)

- 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
  H302 Harmful if swallowed.
  H312 Harmful in contact with skin.
  H314 Causes severe skin burns and eye damage.
  H332 Harmful if inhaled.
Trade name: MR® 750 Ultrasonic coupling agent

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R22   Harmful if swallowed.
R34   Causes burns.

• **Recommended restriction of use**
  Existing national and local laws concerning chemicals are to be considered.

• Department issuing MSDS: MR® Chemie GmbH, Development
• Contact: MR® Chemie GmbH, Tel.: 0049(0)2303/95151-0

• **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)
  RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
  IMDG: International Maritime Code for Dangerous Goods
  IATA: International Air Transport Association
  ICAO: International Civil Aviation Organization
  GHS: Globally Harmonized System of Classification and Labelling of Chemicals
  VOC: Volatile Organic Compounds (USA, EU)

• *Data compared to the previous version altered.*