1 Identification

- **Trade name**: Clip Combi
- **Article number**: 2085
- **Relevant identified uses of the substance or mixture and uses advised against**: No further relevant information available.
- **Application of the substance / the preparation**: Concentrated drycleaning detergent with excellent antistatic properties and fragrance for hygienic textile cleaning. Application in perc and hydrocarbon, injection and for charged-system machines. VOC-free.
- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier**:
    - **Manufacturer**: Chemische Fabrik Kreussler & Co. GmbH
      Postfach 120454
      D-65082 Wiesbaden
    - **Supplier**: Kreussler Inc., 6103 Johns Road Suit 7, Tampa, FL 33634,
      Phone 813-884-1499, Fax 813-884-1599,
      Internet: www.kreussler.com, e-mail: office-tampa@kreussler.com
  - **Information department**: Abteilung TQM
    Herr Vogel
    +49 (0) 611 9271-175
    Kurt.Vogel@kreussler.com
  - **Emergency telephone number**: +49 (0) 611 9271-0

2 Hazard(s) identification

- **Classification of the substance or mixture**
  - **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
    - Harmful if swallowed.
    - Irritant
      - Irritating to skin. Risk of serious damage to eyes.
    - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **Information concerning particular hazards for human and environment**: The product has 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 was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- **Label elements**
- **Labelling according to EU guidelines**: The product has been classified and marked in accordance with directives on hazardous materials.
- **Code letter and hazard designation of product**:
  - Xn Harmful

- **Risk phrases**: Harmful if swallowed. Irritating to skin. Risk of serious damage to eyes. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

(Contd. on page 2)
Trade name: Clip Combi

· Safety phrases:
  In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
  Wear suitable protective clothing and gloves.
  Avoid release to the environment. Refer to special instructions/safety data sheets.

· Classification system:
  · NFPA ratings (scale 0 - 4)
    Health = 2
    Fire = 1
    Reactivity = 0
  · HMIS-ratings (scale 0 - 4)
    HEALTH
    Fire = 1
    Reactivity = 0

· Other hazards
  The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds or formaldehydes.

3 Composition/information on ingredients

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

  · Dangerous components:

    | Substance | Xi R43 | Xi R51/53 | Xi R22 | Xi R36/38 | Xi R38-41 | Xi R36 | Xi R38-41 | Xi R38-41 | Xi R38-41 | Xi R38-41 |
    |-----------|--------|-----------|--------|-----------|-----------|--------|-----------|-----------|-----------|-----------|
    | perfumes  | ≤0.1%  |           |        |           |           |        |           |           |           |           |
    | 69011-36-5 | 15-30% |           |        |           |           |        |           |           |           |           |
    | 1322-98-1  | 5.0-15%|           |        |           |           |        |           |           |           |           |
    | 112-34-5   | 5.0-15%|           |        |           |           |        |           |           |           |           |
    | 68425-47-8 | 5.0-15%|           |        |           |           |        |           |           |           |           |
    | 9004-82-4  | 1.0-5.0% |           |        |           |           |        |           |           |           |           |
    | 106232-83-1 | 1.0-5.0% |           |        |           |           |        |           |           |           |           |
    | 61789-77-3 | 1.0-5.0% |           |        |           |           |        |           |           |           |           |

· 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:
    Rinse with warm water.
    If skin irritation continues, consult a doctor.
  · 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:
  · Most important symptoms and effects, both acute and delayed
    No further relevant information available.

(Contd. on page 3)
Trade name: Clip Combi

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

5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents:
  CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture
  No further relevant information available.
- Advice for firefighters
- Protective equipment: Use normal protective clothing.
- Additional information
  Product does not burn

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
  Wear protective equipment. Keep unprotected persons away.
- 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).
- 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.

7 Handling and storage

- Handling:
- Precautions for safe handling
  No special precautions are necessary if used correctly.
- Information about protection against explosions and fires:
  The product is not flammable.
- Conditions for safe storage, including any incompatibilities
- Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility: Not required.
- Further information about storage conditions: None.
- Specific end use(s)
  No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical systems
  No further data; see item 7.
- Control parameters

<table>
<thead>
<tr>
<th>Components with limit values that require monitoring at the workplace:</th>
</tr>
</thead>
<tbody>
<tr>
<td>112-34-5 2-(2-butoxyethoxy)ethanol (5.0-15%)</td>
</tr>
<tr>
<td>TLV NIC-67.5* mg/m³, NIC-10* ppm</td>
</tr>
<tr>
<td>&quot;Inhalable fraction and vapor&quot;</td>
</tr>
</tbody>
</table>

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

- Exposure controls
- Personal protective equipment:
  General protective and hygienic measures:
    The usual precautionary measures for handling chemicals should be followed.
    Do not eat, drink, smoke or sniff while working.
    Keep away from foodstuffs, beverages and feed.
    Immediately remove all soiled and contaminated clothing.
    Wash hands before breaks and at the end of work.
    Avoid contact with the eyes and skin.
36.0.31

· Breathing equipment: Not required.
· Protection of hands:
  Protective gloves

· Material of gloves
  PVC or PE gloves
  Recommended thickness of the material: ≥ 0.4 mm
· Not suitable are gloves made of the following materials:
  Leather gloves
  Strong gloves
· Eye protection:
  Tightly sealed goggles
· Body protection: Protective work clothing

9 Physical and chemical properties

· Information on basic physical and chemical properties
  · General Information
  · Appearance:
    Form: Fluid
    Color: Light yellow
    Odor: Characteristic
  · pH-value at 20 °C (68 °F): 7.9
· Change in condition
  · Melting point/Melting range: Undetermined.
  · Boiling point/Boiling range: Undetermined.
· Flash point: > 100 °C (> 212 °F) (ASTM D93 (PMCC))
· Auto igniting: Product is not selfigniting.
· Danger of explosion: Product does not present an explosion hazard.
· Vapor pressure: Not determined.
· Density at 20 °C (68 °F): 1.01 g/cm³ (8.428 lbs/gal)
· Solubility in / Miscibility with Water: Fully miscible.
· Viscosity:
  Dynamic at 20 °C (68 °F): 150 mPas
· Solvent content:
  Organic solvents: 0.4 %
· 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.
11 Toxicological information

- Information on toxicological effects

  - Acute toxicity:
    
    | LD/LC50 values that are relevant for classification: |  |
    |--------------------------------------------------|---|
    | 69011-36-5 alcohols C13 branched, ethoxylated     |  |
    | Oral LD-50 500-2000 mg/kg (rat)                   |  |
    | 1322-98-1 Benzenesulfonic acid, C10-13 alkyl derivatives, sodium salt |  |
    | Oral LD-50 >2000 mg/kg (rat) (OECD 401)           |  |
    | Dermal LD-50 >2000 mg/kg (rat) (OECD 402)         |  |
    | 112-34-5 2-(2-butoxyethoxy)ethanol                |  |
    | Oral LD-50 3384 mg/kg (rat)                       |  |
    | Dermal LD-50 2700 mg/kg (bunny)                   |  |
    | 68425-47-8 Soyafattyacid-diethanolamide           |  |
    | Oral LD-50 19700 mg/kg (rat)                      |  |
    | 9004-82-4 Fettalkoholethersulfat                  |  |
    | Oral LD-50 >10000 mg/kg (rat)                     |  |
    | Dermal LD-50 >2000 mg/kg (rat)                    |  |
    | 106232-83-1 Alcohols C13-C15 branched and linear, ethoxylated |  |
    | Oral LD-50 >2000 mg/kg (rat)                      |  |
    | 61789-77-3 Quaternary ammonium compounds, dicocoalkyldimethyl, chlorides |  |
    | Oral LD-50 300 - 2000 mg/kg (rat) (OECD-Prüfrichtlinie 401) |  |

- Primary irritant effect:
  - on the skin: Irritant to skin and mucous membranes.
  - on the eye: Strong irritant with the danger of severe eye injury.
  - Sensitization: No sensitizing effects known.

- Additional toxicological information:
  The product shows the following dangers according to internally approved calculation methods for preparations:
  - Harmful
  - Irritant

- Carcinogenic categories

  - IARC (International Agency for Research on Cancer)
    | Compound | Carcinogenicity |
    |----------|----------------|
    | 67-63-0 propan-2-ol | 3 |
    | 111-42-2 2,2’-iminodiethanol | 3 |

  - NTP (National Toxicology Program)
    None of the ingredients is listed.

12 Ecological information

- Toxicity

  - Aquatic toxicity:
    | Compound | EC/EC50 | Concentration (mg/l) |
    |----------|---------|----------------------|
    | 69011-36-5 alcohols C13 branched, ethoxylated | 48h/72h | >1-10 mg/l (Daphnia magna) (OECD 202, Teil 1) |
    | 1322-98-1 Benzenesulfonic acid, C10-13 alkyl derivatives, sodium salt | 48h/72h | >10-100 mg/l (Desmodesmus subspicatus) (OECD 201) |
### Trade name: Clip Combi

<table>
<thead>
<tr>
<th>LC-50 96h</th>
<th>&gt;1-10 mg/l (Cyprinus carpio) (OECD 203; ISO 7346; 92/69/EWG, C.1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>112-34-5 2-(2-butoxyethoxy)ethanol</td>
<td></td>
</tr>
<tr>
<td>EC-10 (17 h)</td>
<td>1170 mg/l (Pseudomonas putida)</td>
</tr>
<tr>
<td>EC-50 24h</td>
<td>2850 mg/l (Daphnia magna)</td>
</tr>
<tr>
<td>LC-50 96h</td>
<td>1300 mg/l (Lepomis macrochirus)</td>
</tr>
<tr>
<td>NOEC (96h)</td>
<td>&gt;100 mg/l (Desmodesmus subspicatus)</td>
</tr>
<tr>
<td>68425-47-8 Soyafattyacid-diethanolamide</td>
<td></td>
</tr>
<tr>
<td>EC-50</td>
<td>&gt; 100 mg/l (Pseudomonas putida)</td>
</tr>
<tr>
<td>LC-50</td>
<td>&gt;1 -10 mg/l (Pseudomonas putida)</td>
</tr>
<tr>
<td>106232-83-1 Alcohols C13-C15 branched and linear, ethoxylated</td>
<td></td>
</tr>
<tr>
<td>EC-10</td>
<td>&gt;1000 mg/L (Belebschlamm)</td>
</tr>
<tr>
<td>EC-50 48h</td>
<td>1-10 mg/l (Daphnia magna) (Literaturangabe)</td>
</tr>
<tr>
<td>EC-50 72h</td>
<td>1 - 10 mg/l (Scenedesmus subspicatus) (Literaturangabe)</td>
</tr>
<tr>
<td>LC-50 96h</td>
<td>1-10 mg/l (Brachydanio rerio)</td>
</tr>
<tr>
<td>61789-77-3 Quaternary ammonium compounds, dicocoalkyldimethyl, chlorides</td>
<td></td>
</tr>
<tr>
<td>EC-50 3 h</td>
<td>&gt; 10 - 100 mg/l (Belebschlamm)</td>
</tr>
<tr>
<td>EC-50 72h</td>
<td>&gt; 0.1 - 1 mg/l (Pseudokirchneriella subscapitata) (OECD-Prüfrichtlinie 201)</td>
</tr>
<tr>
<td>LC-50 48 h</td>
<td>&gt;0.1-1 mg/L (Acartia Tonsa)</td>
</tr>
<tr>
<td>LC-50 96h</td>
<td>&gt; 0.1 - 1 mg/l (Brachydanio rerio) (OECD-Prüfrichtlinie 203)</td>
</tr>
</tbody>
</table>

- **Persistence and degradability**: No further relevant information available.
- **Other information**: The product is biodegradable.
- **Behavior in environmental systems**:
- **Bioaccumulative potential**: No further relevant information available.
- **Mobility in soil**: No further relevant information available.
- **Additional ecological information**:
- **General notes**:
  - The surfactant(s) contained in this preparation complies with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.
  - The product may not be released into the environment without control.
  - Do not allow product to reach ground water, water course or sewage system.
- **Other adverse effects**: No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**: Dispose of in accordance with local, state, and federal Regulations.

- **Uncleaned packagings**:
- **Recommendation**: Disposal must be made according to official regulations.
- **Recommended cleansing agent**: Water, if necessary with cleansing agents.

### 14 Transport information

- **UN-Number**
- DOT, ADR, ADN, IMDG, IATA: Void

- **UN proper shipping name**
- DOT, ADR, ADN, IMDG, IATA: Void

- **Transport hazard class(es)**
- DOT, ADR, ADN, IMDG, IATA: Void
Safety Data Sheet  
acc. to OSHA HCS

Trade name: Clip Combi

(Contd. of page 6)

- Packing group
  - DOT, ADR, IMDG, IATA  
  Void

- Environmental hazards:
  - Marine pollutant:  
  No

- Special precautions for user  
  Not applicable.

- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code  
  Not applicable.

15 Regulatory information

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

  - Section 355 (extremely hazardous substances):  
    None of the ingredient is listed.

  - Section 313 (Specific toxic chemical listings):
    67-63-0 propan-2-ol
    111-42-2 2,2'-iminodiethanol

  - TSCA (Toxic Substances Control Act):
    69011-36-5 alcohols C13 branched, ethoxylated
    1322-98-1 Benzenesulfonic acid, C10-13 alkyl derivatives, sodium salt
    64742-56-9 Distillates (petroleum), solvent-dewaxed light paraffinic
    112-34-5 2-(2-butoxyethoxy)ethanol
    68425-47-8 Soya fatty acid diethanolamide
    9004-82-4 Fettalkoholethersulfat
    106232-83-1 Alcohols C13-C15 branched and linear, ethoxylated
    61789-77-3 Quaternary ammonium compounds, dicoconutrimethyl, chlorides
    56-81-5 glycerol
    67-63-0 propan-2-ol
    111-42-2 2,2'-iminodiethanol
    2372-82-9 N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine
    2634-33-5 1,2-benzisothiazol-3(2H)-one
    2682-20-4 2-methyl-2H-isothiazol-3-one
    7732-18-5 water, distilled, conductivity or of similar purity

- Proposition 65

  - Chemicals known to cause cancer:  
    111-42-2 2,2'-iminodiethanol

  - Chemicals known to cause reproductive toxicity for females:
    None of the ingredients is listed.

  - Chemicals known to cause reproductive toxicity for males:
    None of the ingredients is listed.

  - Chemicals known to cause developmental toxicity:
    None of the ingredients is listed.

- Cancerogenity categories

  - EPA (Environmental Protection Agency):
    None of the ingredients is listed.

- TLV (Threshold Limit Value established by ACGIH):
  67-63-0 propan-2-ol

(Contd. on page 8)

USA
Trade name: Clip Combi

| 111-42-2 | 2,2'-iminodiethanol |

- **MAK (German Maximum Workplace Concentration)**
  - 111-42-2 | 2,2'-iminodiethanol |

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**
  None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**
  None of the ingredients is listed.

- **Canadian Substances Listings:**
  - **Canadien Domestic Substances List (DSL):**
    - 69011-36-5 | alcohols C13 branched, ethoxylated |
    - 1322-98-1 Benzenesulfonic acid, C10-13 alkyl derivatives, sodium salt |
    - 64742-56-9 Distillates (petroleum), solvent-dewaxed light paraffinic |
    - 112-34-5 | 2-(2-butoxyethoxy)ethanol |
    - 68425-47-8 Soyafattyacid-diethanolamide |
    - 9004-82-4 Fettalkoholether sulfat |
    - 106232-83-1 Alcohol C13-C15 branched and linear, ethoxylated |
    - 61789-77-3 Quaternary ammonium compounds, dicocoalkyldimethyl, chlorides |
    - 56-81-5 glycerol |
    - 67-63-0 propan-2-ol |
    - 111-42-2 | 2,2'-iminodiethanol |
    - 2372-82-9 N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine |
    - 2634-33-5 | 1,2-benzisothiazol-3(2H)-one |
    - 2682-20-4 | 2-methyl-2H-isothiazol-3-one |
    - 7732-18-5 water, distilled, conductivity or of similar purity |

- **Canadien Ingredient disclosure list (limit 0.1%)**
  - 69011-36-5 | alcohols C13 branched, ethoxylated |
  - 1322-98-1 Benzenesulfonic acid, C10-13 alkyl derivatives, sodium salt |
  - 64742-56-9 Distillates (petroleum), solvent-dewaxed light paraffinic |
  - 112-34-5 | 2-(2-butoxyethoxy)ethanol |
  - 68425-47-8 Soyafattyacid-diethanolamide |
  - 9004-82-4 Fettalkoholether sulfat |
  - 106232-83-1 Alcohol C13-C15 branched and linear, ethoxylated |
  - 61789-77-3 Quaternary ammonium compounds, dicocoalkyldimethyl, chlorides |
  - 56-81-5 glycerol |
  - 67-63-0 propan-2-ol |
  - 111-42-2 | 2,2'-iminodiethanol |
  - 2372-82-9 N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine |

- **Canadien Ingredient disclosure list (limit 1%)**
  - 1322-98-1 Benzenesulfonic acid, C10-13 alkyl derivatives, sodium salt |
  - 112-34-5 | 2-(2-butoxyethoxy)ethanol |

- **Product related hazard informations:**
  The product has been classified and marked in accordance with directives on hazardous materials.
Hazard symbols:
 excess or Xn Harmful

Risk phrases:
Harmful if swallowed.
Irritating to skin.
Risk of serious damage to eyes.
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Wear suitable protective clothing and gloves.
Avoid release to the environment. Refer to special instructions/safety data sheets.

National regulations:

Technical instructions (air):

<table>
<thead>
<tr>
<th>Class</th>
<th>Share in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>NK</td>
<td>5.0-15</td>
</tr>
</tbody>
</table>

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.
The information of Items 4 through 8 and 10 through 12 partially refers not to the use and the proper application of the product (see Directions for Use/Product Information) but to the release of larger quantities in the case of accidents and irregularities.
The information exclusively describes the safety requirements of the product(s) and is based on the present state of our experience.
Non-ionic tensides can have varying characteristics and classifications despite same CAS-No.

Department issuing MSDS:
Abteilung TQM
Herr Vogel
+49 (0) 611/9271-175

Contact: Herr Vogel

* Data compared to the previous version altered.