Safety Data Sheet
acc. to OSHA HCS

Printing date 04/30/2015  Reviewed on 04/30/2015

1 Identification

· Product identifier
  · Trade name: Clip Comfort

· Article number: 2261

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

· Application of the substance / the mixture
  Concentrated drycleaning detergent with highly active odour absorber, neutral scent, excellent antistatic characteristics and comfort retexturing properties in textile cleaning. For use in Perc and hydrocarbon.

· 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 Heiko Schmidt
  · +49 (0) 611 9271-144
  · Heiko.Schmidt@kreussler.com

· Emergency telephone number: +49 (0) 611 9271-0

2 Hazard(s) identification

· Classification of the substance or mixture
  · Skin Irrit. 2  H315  Causes skin irritation.
  · Eye Dam. 1  H318  Causes serious eye damage.

· Classification according to Directive 67/548/EEC or Directive 1999/45/EC
  · Irritant
  · Irritating to skin. Risk of serious damage to eyes.

· 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
  · GHS label elements
    The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms

GHS05

· Signal word Danger

· Hazard statements
  · Causes skin irritation.
  · Causes serious eye damage.

· Precautionary statements
  Wear protective gloves / eye protection.
  If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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Trade name: Clip Comfort

If skin irritation occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
If on skin: Wash with plenty of water.

Classification system:

- NFPA ratings (scale 0 - 4)
  - Health = 2
  - Fire = 1
  - Reactivity = 0

- HMIS-ratings (scale 0 - 4)
  - Health = 2
  - Fire = 1
  - Reactivity = 0

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

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 the substances listed below with nonhazardous additions.

<table>
<thead>
<tr>
<th>Substance</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perfumes</td>
<td>≤1%</td>
</tr>
<tr>
<td>Soyafattyacid-diethanolamide</td>
<td>5.0-15%</td>
</tr>
<tr>
<td>1322-98-1 Benzenesulfonic acid, C10-13 alkyl derivatives, sodium salt</td>
<td>5.0-15%</td>
</tr>
<tr>
<td>9004-82-4 Fatty alcohol ether-sulfate</td>
<td>5.0-15%</td>
</tr>
<tr>
<td>69227-21-0 alcohols C12 – C18 ethoxylated, propoxylated</td>
<td>1.0-5.0%</td>
</tr>
<tr>
<td>69011-36-5 alcohols C13 branched, ethoxylated</td>
<td>1.0-5.0%</td>
</tr>
<tr>
<td>68424-85-1 quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides</td>
<td>1.0-5.0%</td>
</tr>
<tr>
<td>68439-50-9 alcohol C12-T4, ethoxylated</td>
<td>≤1%</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:
    - 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.
Trade name: Clip Comfort

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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**
  Product itself does not burn.

- **Advice for firefighters**
  
- **Protective equipment:** Use normal protective clothing.

- **Additional information**
  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**
  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 measures required.

- **Information about protection against explosions and fires:**
  No special measures required.

- **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**
  
- **Components 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 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.

(Contd. on page 4)
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
- **Breathing equipment:** Not required.
- **Protection of hands:**
  - **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

<table>
<thead>
<tr>
<th>Information on basic physical and chemical properties</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Information</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Appearance:</strong></td>
<td></td>
</tr>
<tr>
<td>Form:</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color:</td>
<td>Light yellow</td>
</tr>
<tr>
<td>Odor:</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odour threshold:</td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>pH-value at 20 °C (68 °F):</strong></td>
<td>7.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Change in condition</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point/Melting range:</td>
<td>Undetermined.</td>
</tr>
<tr>
<td>Boiling point/Boiling range:</td>
<td>Undetermined.</td>
</tr>
</tbody>
</table>

| Flash point: | > 100 °C (> 212 °F) (ASTMD93(PMCC)) |

| Flammability (solid, gaseous): | Not applicable. |

<table>
<thead>
<tr>
<th>Ignition temperature:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Decomposition temperature:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Auto igniting:</td>
<td>Product is not selfigniting.</td>
</tr>
<tr>
<td>Danger of explosion:</td>
<td>Product does not present an explosion hazard.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Explosion limits:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Upper:</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vapor pressure:</th>
<th>Undetermined.</th>
</tr>
</thead>
</table>

| Density at 20 °C (68 °F): | 1.01 g/cm³ (8.428 lbs/gal) |

<table>
<thead>
<tr>
<th>Relative density</th>
<th>Not determined.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapour density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

| Solubility in / Miscibility with Water: | Fully miscible. |
40.3.0 · Partition coefficient (n-octanol/water): Not determined.
· Viscosity:
  Dynamic at 20 °C (68 °F): 112 mPas
  Kinematic at 40 °C (104 °F): 49 mm²/s
· Solvent content:
  Organic solvents: 0.2 %
· 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: No further relevant information available.
  · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

· Information on toxicological effects
  · Acute toxicity:
    · LD/LC50 values that are relevant for classification:
      64742-56-9 Distillates (petroleum), solvent-dewaxed light paraffinic
      Oral LD-50 >5000 mg/kg (rat)
      Dermal LD-50 >5000 mg/kg (rabbit)
      Inhalative LC-50/4 h 5.53 mg/m³ (rat)
      68425-47-8 Soyfattyacid-diethanolamide
      Oral LD-50 19700 mg/kg (rat)
      1322-98-1 Benzenesulfonic acid, C10-13 alkyl derivatives, sodium salt
      Oral LD-50 2000 - 5000 mg/kg (rat) (OECD 401)
      Dermal LD-50 >2000 mg/kg (rat) (OECD 402)
      9004-82-4 Fatty alcohol ether-sulfate
      Oral LD-50 >10000 mg/kg (rat)
      Dermal LD-50 >2000 mg/kg (rat)
      69227-21-0 alcohols C12 – C18 ethoxylated, propoxylated
      Oral LD-50 >2000 mg/kg (rat)
      69011-36-5 alcohols C13 branched, ethoxylated
      Oral LD-50 500-2000 mg/kg (rat)
      68424-85-1 quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides
      Oral LD-50 795 mg/kg (rat)
      Dermal LD-50 >5000 mg/kg (rat)
      2634-33-5 1,2-benzisothiazol-3(2H)-one
      Oral LD-50 670 mg/kg (rat)
  · 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.
Trade name: Clip Comfort

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

- **Carcinogenic categories**
  - IARC (International Agency for Research on Cancer)
    111-42-2 2,2'-iminodiethanol 3
  - NTP (National Toxicology Program)
    None of the ingredients is listed.
  - OSHA-Ca (Occupational Safety & Health Administration)
    None of the ingredients is listed.

## 12 Ecological information

### Toxicity

<table>
<thead>
<tr>
<th>Compound</th>
<th>EC-50 (mg/L)</th>
<th>LC-50 (mg/L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soyafattyacid-diethanolamide</td>
<td>&gt;100 mg/l (Pseudomonas putida)</td>
<td>&gt;1 - 10 mg/l (Pseudomonas putida)</td>
</tr>
<tr>
<td>Benzenesulfonic acid, C10-13 alkyl derivatives, sodium salt</td>
<td>&gt;1-10 mg/l (Pseudomonas putida)</td>
<td>&gt;1 - 10 mg/l (Daphnia magna) (OECD 211)</td>
</tr>
<tr>
<td>alcohols C12 – C18 ethoxylated, propoxylated</td>
<td>EC-50 48h; LC-50 96h</td>
<td>&gt;1 - 10 mg/l (Daphnia magna) (OECD 202, Teil 1)</td>
</tr>
<tr>
<td>alcohols C13 branched, ethoxylated</td>
<td>69011-36-5</td>
<td>&gt;1 - 10 mg/l (Daphnia magna) (OECD 211)</td>
</tr>
<tr>
<td>1,2-benzisothiazol-3(2H)-one</td>
<td>2634-33-5</td>
<td>1.0 mg/l (Daphnia pulex)</td>
</tr>
</tbody>
</table>

### Aquatic toxicity:

<table>
<thead>
<tr>
<th>Compound</th>
<th>EC-50 (mg/L)</th>
<th>LC-50 (mg/L)</th>
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<td>&gt;1 - 10 mg/l (Daphnia magna) (OECD 202, Teil 1)</td>
</tr>
<tr>
<td>1,2-benzisothiazol-3(2H)-one</td>
<td>2634-33-5</td>
<td>1.0 mg/l (Daphnia pulex)</td>
</tr>
</tbody>
</table>

### Other information:

- The product is biodegradable.
- No further relevant information available.

### Behavior in environmental systems:

- Bioaccumulative potential: No further relevant information available.
- Mobility in soil: No further relevant information available.
Trade name: Clip Comfort

40.3.0 Additional ecological information:
- General notes:
The surfactant(s) contained in this preparation complies (comply) 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.

- 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: 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
- 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.
- UN "Model Regulation": -

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):
    - 111-42-2 2,2'-iminodiethanol
  - TSCA (Toxic Substances Control Act):
    - All ingredients are listed.
Trade name: Clip Comfort

- 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)
    - 111-42-2 2,2'-iminodiethanol A3
  - MAK (German Maximum Workplace Concentration)
    - 111-42-2 2,2'-iminodiethanol 3B
  - NIOSH-Ca (National Institute for Occupational Safety and Health)
    None of the ingredients is listed.

- Canadien Substances Listings:
  - Canadien Domestic Substances List (DSL):
    All ingredients are listed.
  - Canadien Ingredient disclosure list (limit 0.1%)
    All ingredients are listed.
  - Canadien Ingredient disclosure list (limit 1%)
    - 1322-98-1 Benzenesulfonic acid, C10-13 alkyl derivatives, sodium salt

- GHS label elements
  The product is classified and labeled according to the Globally Harmonized System (GHS).

- Hazard pictograms
  - GHS05

- Signal word Danger

- Hazard statements
  Causes skin irritation.
  Causes serious eye damage.

- Precautionary statements
  Wear protective gloves / eye protection.
  If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  If skin irritation occurs: Get medical advice/attention.
  If eye irritation persists: Get medical advice/attention.
  If on skin: Wash with plenty of water.

- National regulations:
  - Technical instructions (air):
    - Class NK
    - Share in % ≤1

- 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.

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 SDS:**
  Department TQM
  Herr Heiko Schmidt
  +49 (0) 611/9271-144

- **Contact:** Herr Heiko Schmidt

- **Date of preparation / last revision** 04/30/2015 / 4

- **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
  DOT: US Department of Transportation
  IATA: International Air Transport Association
  ACGIH: American Conference of Governmental Industrial Hygienists
  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)
  NFPA: National Fire Protection Association (USA)
  HMIS: Hazardous Materials Identification System (USA)
  LD50: Lethal dose, 50 percent
  LC50: Lethal concentration, 50 percent
  Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
  Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

- * Data compared to the previous version altered.