1 Identification

- Product identifier
- Trade name: **Clip Top**
- Article number: 2217
- 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 comfort-retexturing and intensive antistatic properties. Prevents the formation of deposits in cleaning machines. Application in per and hydrocarbon solvents.
- **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 Suite 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.
  - Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.
- **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.
  Harmful to aquatic life with long lasting effects.

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

### Precautionary statements
Wear protective gloves / eye protection.
Avoid release to the environment.
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.

### Classification system:
- NFPA ratings (scale 0 - 4)

<table>
<thead>
<tr>
<th></th>
<th>Health</th>
<th>Fire</th>
<th>Reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2</strong></td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

- HMIS-ratings (scale 0 - 4)

<table>
<thead>
<tr>
<th></th>
<th>Health</th>
<th>Fire</th>
<th>Reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Reaction</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

### 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>Dangerous components:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>perfumes</td>
<td>≤1%</td>
</tr>
<tr>
<td>Xn R36/38-43; N R50/53</td>
<td></td>
</tr>
<tr>
<td>157627-86-6 Alcohols C13-C15 branched and linear, ethoxylated</td>
<td>5.0-15%</td>
</tr>
<tr>
<td>Xn R22; Xi R41</td>
<td></td>
</tr>
<tr>
<td>112-34-5 2-(2-butoxyethoxy)ethanol</td>
<td>5.0-15%</td>
</tr>
<tr>
<td>Xi R36</td>
<td></td>
</tr>
<tr>
<td>157627-86-6 Aliphatic alcohol, C13-15, predominantly linear, ethoxylated</td>
<td>5.0-15%</td>
</tr>
<tr>
<td>Xi R41; N R50</td>
<td></td>
</tr>
<tr>
<td>9004-82-4 Fatty alcohol ether-sulfate</td>
<td>5.0-15%</td>
</tr>
<tr>
<td>Xi R38-41</td>
<td></td>
</tr>
<tr>
<td>68425-47-8 Soyafattyacid-diethanolamide</td>
<td>1.0-5.0%</td>
</tr>
<tr>
<td>Xi R38-41</td>
<td></td>
</tr>
<tr>
<td>577-11-7 Sulfosuccinat-sodiumsalt</td>
<td>1.0-5.0%</td>
</tr>
<tr>
<td>Xi R38-41</td>
<td></td>
</tr>
<tr>
<td>61789-77-3 Quaternary ammonium compounds, dicoxoalkyldimethyl, chlorides</td>
<td>1.0-5.0%</td>
</tr>
<tr>
<td>C R34; Xn R22; N R50</td>
<td></td>
</tr>
<tr>
<td>27083-27-8 Poly (1-hexamethylenebiguanide) hydrochloride</td>
<td>≤1%</td>
</tr>
<tr>
<td>Xn R22; Xi R37/38-41-43; N R50/53</td>
<td></td>
</tr>
<tr>
<td>111-42-2 2,2'-iminodiethanol</td>
<td>≤0.1%</td>
</tr>
<tr>
<td>Xn R22-48/22; Xi R38-41</td>
<td></td>
</tr>
</tbody>
</table>

### Additional information: For the wording of the listed risk phrases refer to section 16.

(Contd. on page 3)
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.
  - 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
  - Product itself does not burn.
- Advice for firefighters
  - Protective equipment: Use normal protective clothing.

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.
40.3.0

Control parameters

Components with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>Substance</th>
<th>TLV Long-term value</th>
</tr>
</thead>
<tbody>
<tr>
<td>112-34-5 2-(2-butoxyethoxy)ethanol (5.0-15%)</td>
<td>67.5 mg/m³, 10 ppm</td>
</tr>
</tbody>
</table>

*Inhalable fraction and vapor

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.

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: Yellow
- Odor: Characteristic
- Odour threshold: Not determined.

pH-value at 20 °C (68 °F):

7.8

Change in condition

- Melting point/Melting range: Undetermined.
- Boiling point/Boiling range: Undetermined.

Flash point:

> 100 °C (> 212 °F) (ASTMD93(PMCC))

Flammability (solid, gaseous):

Not applicable.

Ignition temperature:

- Decomposition temperature: Not determined.
Trade name: Clip Top

- **Auto igniting:** Product is not self-igniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**
  - **Lower:** Not determined.
  - **Upper:** Not determined.
- **Vapor pressure:** Undetermined.
- **Density at 20 °C (68 °F):** 0.97 g/cm³ (8.095 lbs/gal)
- **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 (68 °F):** 91 mPas
  - **Kinematic:** Not determined.
- **Solvent content:**
  - **Organic solvents:** 0.6 %
  - **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:**
    - **157627-86-6 Alcohols C13-C15 branched and linear, ethoxylated**
      - Oral LD-50 >2000 mg/kg (rat)
    - **112-34-5 2-(2-butoxyethoxy)ethanol**
      - Oral LD-50 3384 mg/kg (rat)
      - Dermal LD-50 2700 mg/kg (bunny)
    - **157627-86-6 Aliphatic alcohol, C13-15, predominantly linear, ethoxylated**
      - Oral LD-50 >2000 mg/kg (rat)
      - EC-10 16 h > 10000 mg/L (Pseudomonas putida)
    - **9004-82-4 Fatty alcohol ether-sulfate**
      - Oral LD-50 >10000 mg/kg (rat)
      - Dermal LD-50 >2000 mg/kg (rat)
    - **68425-47-8 Soya fatty acid diethanolamide**
      - Oral LD-50 19700 mg/kg (rat)
### 40.3.0

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LD-50 (mg/kg) (rat)</th>
<th>LD-50 (mg/kg) (bunny)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>577-11-7 Sulfosuccinat-sodiumsalt</td>
<td>1900</td>
<td></td>
<td>For oral use:</td>
</tr>
<tr>
<td>61789-77-3 Quaternary ammonium compounds, dicocoalkyldimethyl, chlorides</td>
<td>300 - 2000</td>
<td></td>
<td>LD-50 (OECD-Prüfrichtlinie 401)</td>
</tr>
<tr>
<td>27083-27-8 Poly (1-hexamethyleneguanide) hydrochloride</td>
<td>&gt;2000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>perfume</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>5443.77</td>
<td>9920.84</td>
<td>(Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>12769</td>
<td></td>
<td>(Calculation method)</td>
</tr>
<tr>
<td>Inhalative</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td>710</td>
<td>LD-50</td>
</tr>
<tr>
<td>Dermal</td>
<td></td>
<td>12200</td>
<td>LD-50 (bunny)</td>
</tr>
</tbody>
</table>

- **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:
  - Irritant

- **Carcinogenic categories**
  - IARC (International Agency for Research on Cancer)
    - 67-63-0 propan-2-ol 3
    - 111-42-2 2,2’-iminodiethanol 2B
  - 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**

- **Aquatic toxicity:**
  - 157627-86-6 Alcohols C13-C15 branched and linear, ethoxylated
    - EC-10 >1000 mg/L (Belechtschlamm)
    - EC-50 48h 1-10 mg/l (Daphnia magna) (Literaturangabe)
    - EC-50 72h 1 - 10 mg/l (Scenedesmus subspicatus) (Literaturangabe)
    - LC-50 96h 1-10 mg/l (Brachydanio rerio)
  - 112-34-5 2-(2-butoxyethoxy)ethanol
    - EC-10 (17 h) 1170 mg/l (Pseudomonas putida)
    - EC-50 24h 2850 mg/l (Daphnia magna)
    - LC-50 96h 1300 mg/l (Lepomis macrochirus)
    - NOEC (96h) >100 mg/l (Desmodesmus subspicatus)
  - 157627-86-6 Aliphatic alcohol, C13-15, predominantly linear, ethoxylated
    - EC-50 48h 0.1 - 1 mg/l (aquatische Invertebraten)
    - EC-50 72h 0.1-1 mg/l (Scenedesmus subspicatus)
    - LC-50 96h 1-10 mg/l (Brachydanio rerio)

(Contd. on page 7)
### 68425-47-8 Soyafattyacid-diethanolamide

| EC-50 | > 100 mg/l (Pseudomonas putida) |
| LC-50 | >1 - 10 mg/l (Pseudomonas putida) |

### 61789-77-3 Quaternary ammonium compounds, dicocoalkyldimethyl, chlorides

| EC-50 3 h | > 10 - 100 mg/l (Belebtschlamm) |
| EC-50 72h | > 0.1 - 1 mg/l (Pseudokirchneriella subscapitata) (OECD-Prüfrichtlinie 201) |
| LC-50 48 h | >0.1-1 mg/L (Acartia Tonsa) |
| LC-50 96h | > 0.1 - 1 mg/l (Brachydanio rerio) (OECD-Prüfrichtlinie 203) |

### 27083-27-8 Poly (1-hexamethylenebiguanide) hydrochloride

| EC-50 48h | 0.09 mg/l (Daphnia magna) (OECD-Prüfrichtlinie 202) |
| ErC-50 72h | 0.0191 mg/l (Pseudokirchneriella subscapitata) (OECD-Prüfrichtlinie 202) |
| LC-50 96h | 0.026 mg/l (Onchorhynchus mykiss) |

### 111-42-2 2,2'-iminodiethanol

| EC-50 16h | >1000 mg/l (Pseudomonas putida) |
| EC-50 48h (static) | 55 mg/l (Daphnia magna) |
| EC-50 96h (static) | 1-10 mg/l (Pseudokirchneriella subscapitata) |
| LC-0 | 0.2 mg/l (rat) |
| LC-50 96h (static) | >100 mg/l (Pimephales promelas) |
| NOEC (21) d | 0.1-1 mg/l (Daphnia magna) |

- 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(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.
    - Do not allow product to reach ground water, water course or sewage system. 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. Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

### 14 Transport information

- UN-Number: Void
- DOT, ADR, ADN, IMDG, IATA: Void
### Regulatory information

#### 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):
All ingredients are listed.

#### 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 A4
  - 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.
Trade name: Clip Top

- **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%)**
    - 112-34-5 2-(2-butoxyethoxy)ethanol
    - 577-11-7 Sulfosuccinat-sodiumsalt

- **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.
  - Harmful to aquatic life with long lasting effects.

- **Precautionary statements**
  - Wear protective gloves / eye protection.
  - Avoid release to the environment.
  - 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):**

<table>
<thead>
<tr>
<th>Class</th>
<th>Share in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>NK</td>
<td>≤1</td>
</tr>
</tbody>
</table>

- **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:**
  - Departent TQM
  - Herr Heiko Schmidt
  - +49 (0) 611/9271-144
- **Contact:** Herr Heiko Schmidt
- **Date of preparation / last revision** 04/30/2015 / 1

- **Abbreviations and acronyms:**
  - RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
  - ICAO: International Civil Aviation Organisation
Trade name: Clip Top

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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

* Data compared to the previous version altered.