

# Material Safety Data Sheet

## According to 91/155 EC

Printing date 08.01.2003

Reviewed on 08.01.2003

### 1 Identification of the substance/preparation and of the company/undertaking

· **Product details**

· **Trade name:** **TEGERAL FORTE**  
(Intensive cleaner for use in HP equipment and sprayers)

· **Manufacturer/Supplier:**  
Tegee-Chemie Bremen GmbH  
Bergedorfer Straße 6-8  
D-28219 Bremen

· **Further information obtainable from:** F/E +49 421 38997-0

· **Information in case of emergency:**  
During normal opening times: +49 421 38997-60 (62)  
At other times: +49 4242 8186 or +49 421 - 400874

### 2 Composition/information on ingredients

· **Chemical characterization:**

Description (acc. to EC recommendation):  
< 5% anionic surfactants / 5-15 % nonionic surfactants / 5-15% NTA

· **Chemical characterization**

· **Description:** Cleansing agent

· **Dangerous components:**

5064-31-3 trisodium nitrilotriacetate Xn; R 22-36/38	5-15%
69011-36-5 Isotridecaanol, 3-5 EO Xn; R 22-36/38	5-15%
1310-73-2 sodium hydroxide C; R 35	0.5-2%

### 3 Hazards identification

· **Hazard description:**

C Corrosive

· **Information concerning particular hazards for human and environment:**

R 34 Causes burns.

· **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

### 4 First-aid measures

· **After inhalation:** Supply fresh air.

· **After skin contact:** Immediately rinse with water.

· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:**

Rinse out mouth and then drink plenty of water.

Seek medical treatment.

### 5 Fire-fighting measures

· **Suitable extinguishing agents:**

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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· **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Person-related safety precautions:** Wear protective clothing.
- **Measures for environmental protection:** Do not allow to penetrate the ground/soil.
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

### 7 Handling and storage

- **Handling:**
- **Information for safe handling:** Open and handle receptacle with care.
- **Information about fire - and explosion protection:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Class according to regulation on flammable liquids:** Void

### 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Ingredients with limit values that require monitoring at the workplace:**  
1310-73-2 sodium hydroxide  
OES Short-term value: 2 mg/m<sup>3</sup>
- **Additional information:** The lists valid during the making were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Avoid contact with the eyes and skin.
- **Respiratory protection:** Not required.
- **Protection of hands:** Synthetic rubber gloves
- **Eye protection:** Tightly sealed goggles

### 9 Physical and chemical properties

- **Form:** Fluid
- **Colour:** Light yellow
- **Odour:** Characteristic
- **Change in condition**  
**Melting point/Melting range:** Undetermined.  
**Boiling point/Boiling range:** 100°C
- **Flash point:** Not applicable.
- **Self-igniting:** Product is not selfigniting.
- **Danger of explosion:** Product does not present an explosion hazard.

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- **Density at 20°C:** 1.09 g/cm<sup>3</sup>
- **Solubility in / Miscibility with water:** Fully miscible.
- **pH-value at 20°C:** 13

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Dangerous reactions** No dangerous reactions known.
- **Dangerous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:  
Corrosive.  
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

### 12 Ecological information

- **Information about elimination (persistence and degradability):**
- **Other information:** Biodegradability of surfactants exceeds legal requirements
- **Ecotoxicological effects:**
- **Remark:** The product is free from organically bound halogens (AOX-free).
- **General notes:**  
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water  
Major quantities rinsed into waters or the sewage system may cause an increase in pH. An increased pH is harmful to water organisms. After diluting the product for use, the pH is decreased considerably so that the sewage waters entering the sewage system after use do not have a harmful effect.

### 13 Disposal considerations

- **Product:**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **European waste catalogue** 07 06 01
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

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### 14 Transport information

- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** 8 Corrosive substances.
- **Danger code (Kemler):** 80
- **UN-Number:** 1824
- **Packaging group:** III
- **Hazard label** 8
- **Description of goods:** 1824 SODIUM HYDROXIDE SOLUTION
- **Maritime transport IMDG:**
- **IMDG Class:** 8
- **UN Number:** 1824
- **Label** 8
- **Packaging group:** III
- **EMS Number:** 8/06
- **Marine pollutant:** No
- **Proper shipping name:** SODIUM HYDROXIDE SOLUTION
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** 8
- **UN/ID Number:** 1824
- **Proper shipping name:** SODIUM HYDROXIDE SOLUTION

### 15 Regulatory information

- **Labelling according to EU guidelines:**  
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.
- **Code letter and hazard designation of product:**  
C Corrosive
- **Risk phrases:**  
34 Causes burns.
- **Safety phrases:**
  - 1/2 Keep locked up and out of the reach of children.
  - 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
  - 28 After contact with skin, wash immediately with plenty of ...
  - 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
  - 45 In case of an accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- **National regulations:**
- **Classification according to VbF:** Void
- **Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water.

### 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 MSDS:** F/E
- **Contact:** Dr. Reinemann, Dr. Krach