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

- Product details
- Trade name: Raw Chemical Solution stabilized 200L, Potassium Carbonate, Sodium Chloride  Code RA4CDRP3
- Article number: 103702
- Application of the substance / the preparation Developer for photographic use

Manufacturer/Supplier:
TETENAL AG & CO. KG
Schützenwall 31-35
D-22844 Norderstedt / Germany
Tel.: +49 040 521 45-0
Fax: +49 040-52145-296
www.tetenal.com
E-mail: info@tetenal.com

TETENAL LTD., Unit 1, Foxholes Road
Leicester LE3 1TH / Great Britain
Tel.: +44 0870 460 8996 Fax: +44 0870 460 8997, e.mail: uk@tetenal.com, www.tetenal.co.uk

- Further information obtainable from: Department environment and safety. E-mail: info@tetenal.com
- Information in case of emergency: Poison Information Centre Berlin (Germany): +49 (0) 30 - 30686 790

2 Hazards identification

- Hazard description:
  
  Xi Irritant

- 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.
  R 36/38 Irritating to eyes and skin.

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

- GHS label elements

  Danger

  H314 - Causes severe skin burns and eye damage.

- Prevention:
  P260 Do not breathe dust/fume/gas/mist/vapours/spray.

- Response:
  P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
  P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  P310 Immediately call a POISON CENTER or doctor/physician.

- Storage:
  P405 Store locked up.

- Disposal:
  P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

(Contd. on page 2)
3 Composition/information on ingredients

- Chemical characterization
- Description: Mixture of substances listed below with nonhazardous additions.
- Dangerous components:
  - CAS: 584-08-7
  - EINECS: 209-529-3
  - Potassium carbonate
  - Xi: R 36/38
  - Warning: 3.2/2, 3.3/2
  - 25-50%
  - CAS: 140-01-2
  - EINECS: 205-391-3
  - Sodium diethylene triamine pentaacetic acid (DTPA-Na5)
  - Xi: R 36
  - Warning: 3.3/2
  - 1-5%

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

4 First aid measures

- General information: Immediately remove any clothing/shoes soiled by the product.
- After inhalation:
  - In case of unconsciousness place patient stably in side position for transportation.
  - Supply fresh air; consult doctor in case of complaints.
- After skin contact:
  - Immediately wash with water and soap and rinse thoroughly.
- After eye contact:
  - Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing:
  - Do not induce vomiting; call for medical help immediately.
  - Rinse out mouth and then drink plenty of water.
  - If symptoms persist consult doctor.

5 Fire-fighting measures

- Suitable extinguishing agents:
  - CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards caused by the substance, its products of combustion or resulting gases:
  - Under certain fire conditions, traces of other toxic gases cannot be excluded.
  - Nitrogen oxides (NOx)
  - Carbon monoxide (CO)
- Protective equipment: No special measures required.

6 Accidental release measures

- Person-related safety precautions: Ensure adequate ventilation
- Measures for environmental protection:
  - Inform respective authorities in case of seepage into water course or sewage system.
  - Dilute with plenty of water.
  - Do not allow to enter sewers/ surface or ground water.
- Measures for cleaning/collection:
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - Pick up mechanically.
7 Handling and storage

- **Handling:**
- **Information for safe handling:**
  Keep receptacles tightly sealed.
  Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:** No special measures required.
- **Storage:**
  - **Requirements to be met by storerooms and receptacles:** No special requirements.
  - **Information about storage in one common storage facility:**
    Store away from foodstuffs.
    Do not store together with alkalis (caustic solutions).
    Store away from oxidizing agents.
  - **Further information about storage conditions:**
    Keep container tightly sealed.
    Store in cool, dry conditions in well sealed receptacles.
    Protect from heat and direct sunlight.
    Protect from exposure to the light.
    Store under lock and key and out of the reach of children.
    Recommended storage temperature: 5-25°C

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:**
  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 valid during the making were used as basis.
- **Personal protective equipment:**
  - **General protective and hygienic measures:**
    Keep away from foodstuffs, beverages and feed.
    Immediately remove all soiled and contaminated clothing.
    Wash hands before breaks and at the end of work.
    Do not inhale gases / fumes / aerosols.
    Avoid contact with the eyes and skin.
  - **Respiratory protection:** Not required.
  - **Protection of hands:**
    Protective gloves
    Impervious gloves
    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
  - **Material of 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.
### Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td>Fluid</td>
</tr>
<tr>
<td><strong>Colour</strong></td>
<td>Yellow</td>
</tr>
<tr>
<td><strong>Odour</strong></td>
<td>Recognizable</td>
</tr>
<tr>
<td><strong>Melting point/Melting range</strong></td>
<td>Undetermined</td>
</tr>
<tr>
<td><strong>Boiling point/Boiling range</strong></td>
<td>&gt; 100°C</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Self-igniting</strong></td>
<td>Product is not selfigniting.</td>
</tr>
<tr>
<td><strong>Danger of explosion</strong></td>
<td>Product does not present an explosion hazard.</td>
</tr>
<tr>
<td><strong>Vapour pressure at 20°C</strong></td>
<td>23 hPa</td>
</tr>
<tr>
<td><strong>Density at 20°C</strong></td>
<td>1.4263 g/cm³</td>
</tr>
<tr>
<td><strong>Solubility in / Miscibility with water</strong></td>
<td>Fully miscible.</td>
</tr>
<tr>
<td><strong>pH-value at 20°C</strong></td>
<td>12.2</td>
</tr>
<tr>
<td><strong>Solvent content</strong></td>
<td></td>
</tr>
<tr>
<td>Organic solvents</td>
<td>0.0 %</td>
</tr>
<tr>
<td>Water</td>
<td>56.6 %</td>
</tr>
</tbody>
</table>

### Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**
  - No decomposition if used according to specifications.
  - Stable at environment temperature.
- **Materials to be avoided:**
- **Dangerous reactions** Reacts with acids, alkalis and oxidizing agents.
Trade name: Raw Chemical Solution stabilized 200L, Potassium Carbonate, Sodium Chloride Code RA4CDRP3

- Dangerous decomposition products: Irritant gases/vapours

* 11 Toxicological information

- Acute toxicity:
  - Primary irritant effect:
    - on the skin: Irritant to skin and mucous membranes.
    - on the eye: Irritating effect.
    - Sensitization: No sensitizing effects known.
  - Additional toxicological information:
    The preparation is "irritant". J.R. Young, M.J. How, A.P. Walker and W.M.H. Worth (1988): Classification as corrosive or irritant to skin of preparations containing acidic or alkaline substances, without testing on animals. Toxic. in Vitro, Bd.2, Nr.1, 1988, S.19-26]. Irritant

* 12 Ecological information

- Ecotoxical effects:
  - Remark: Harmful to fish
- Additional ecological information:
  - General notes:
    Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
    Do not allow product to reach ground water, water course or sewage system.
    Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

* 13 Disposal considerations

- Product:
  - Recommendation: Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- European waste catalogue
  - 09 01 01 water-based developer and activator solutions
- Uncleaned packaging:
  - Recommendation: Disposal must be made according to official regulations.
  - Recommended cleansing agents: Water, if necessary together with cleansing agents.

* 14 Transport information

- Land transport ADR/RID (cross-border)
  - ADR/RID class: -
- Maritime transport IMDG:
  - IMDG Class: -
  - Marine pollutant: No
- Air transport ICAO-TI and IATA-DGR:
  - ICAO/IATA Class: -
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:
  Xi Irritant

- Risk phrases:
  36/38 Irritating to eyes and skin.

- Safety phrases:
  60 This material and its container must be disposed of as hazardous waste.

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 R-phrases
  36   Irritating to eyes.
  36/38 Irritating to eyes and skin.

- Department issuing MSDS: Department product safety
- Contact: e-mail: sida@tetenal.com

- 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
  IATA-DGR: Dangerous Goods Regulations by the “International Air Transport Association” (IATA)
  ICAO: International Civil Aviation Organization
  ICAO-TI: Technical Instructions by the “International Civil Aviation Organization” (ICAO)
  GHS: Globally Harmonized System of Classification and Labelling of Chemicals

* Data compared to the previous version altered.