1 Identification of substance

- Product details
- Trade name: PyroMark Denaturation Solution
- Manufacturer/Supplier:
  QIAGEN GmbH, QIAGEN Str. 1, 40724 Hilden, Germany
  Tel.: (+49)-2103/29-0
- Information department:
  QIAGEN Technical Service
  QIAGEN Inc., 27220 Turnberry Lane, Valencia, CA 91355, USA
  Tel.: 1-800-DNA-PREP (1-800-362-7737)
  Email: techservice-us@qiagen.com
- Emergency information:
  CHEMTREC
  USA & Canada 1-800-424-9300
  Outside USA & Canada +1 703-527-3887

2 Composition/Data on components

- Chemical characterization
- Description: Mixture of substances listed below with nonhazardous additions.
- Dangerous components:
  1310-73-2 sodium hydroxide 0.1-1.0%

3 Hazards identification

- Hazard description:
  Irritant
- Information pertaining to particular dangers for man and environment:
  Irritating to eyes and skin.
- Classification system:
  The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
- NFPA ratings (scale 0 - 4)
  Health = 1
  Fire = 0
  Reactivity = 0
- WHMIS-ratings (scale 0 - 4)
  Health = 1
  Fire = 0
  Reactivity = 0

4 First aid measures

- After inhalation: 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. Then consult a doctor.
- After swallowing: Call a doctor immediately.

(Contd. on page 2)
5 Fire fighting measures

- Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Protective equipment: No special measures required.

6 Accidental release measures

- Person-related safety precautions: Ensure adequate ventilation
- Measures for environmental protection: Do not allow to enter sewers/surface or ground water.

7 Handling and storage

- Handling:
  - Information for safe handling: Keep receptacles tightly sealed.
  - Information about protection against explosions and fires: No special measures required.
- Storage:
  - Requirements to be met by storerooms and receptacles: No special requirements.
  - Information about storage in one common storage facility: Do not store together with acids.
  - Further information about storage conditions: None.

8 Exposure controls and personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Personal protective equipment:
  - General protective and hygienic measures: The usual precautionary measures for handling chemicals should be followed.
  - Protection of hands: Protective gloves
  - 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.
  - Penetration time of glove material: The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
  - Eye protection: Safety glasses

9 Physical and chemical properties

- General Information
  - Form: Fluid
  - Color: Clear
  - Odor: Characteristic
- Change in condition
  - Melting point/Melting range: Undetermined.
  - Boiling point/Boiling range: Undetermined.
### Trade name: PyroMark Denaturation Solution

- **Flash point:** Not applicable.
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Density:** Not determined.
- **Solubility in / Miscibility with Water:** Fully miscible.
- **pH-value at 20°C (68°F):** 14

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions** Reacts with acids, alkalis and oxidizing agents.
- **Dangerous products of decomposition:** No dangerous decomposition products known.

### 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.

### 12 Ecological information

- **General notes:**
  - Water hazard class 1 (Self-assessment): slightly hazardous for water
  - Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

### 13 Disposal considerations

- **Product:**
  - **Recommendation:** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
  - **Recommendation:** Disposal must be made according to official regulations.
  - **Recommended cleansing agent:** Water, if necessary with cleansing agents.

### 14 Transport information

- **DOT regulations:**
  - **Hazard class:** 8
  - **Identification number:** UN1824
  - **Packing group:** III

(Contd. on page 2)
Trade name: PyroMark Denaturation Solution

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

15 Regulations

· Sara
  · Section 313 (Specific toxic chemical listings):
    None of the ingredients is listed.
· TSCA (Toxic Substances Control Act):
  · Proposition 65
    · Chemicals known to cause cancer:
      None of the ingredients is listed.
  · 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.
  · IARC (International Agency for Research on Cancer)
    None of the ingredients is listed.
  · NTP (National Toxicology Program)
    None of the ingredients is listed.
  · TLV (Threshold Limit Value established by ACGIH)
    None of the ingredients is listed.
  · MAK (German Maximum Workplace Concentration)
    None of the ingredients is listed.
  · 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.

Product related hazard informations:
Observe the general safety regulations when handling chemicals.

Hazard symbols:
Irritant

Risk phrases:
Irritating to eyes and skin.

Safety phrases:
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Wear suitable protective clothing, gloves and eye/face protection.
In case of accident or if you feel unwell, seek medical advice immediately.

National regulations:

Water hazard class: Water hazard class 1 (Self-assessment): slightly 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.