

## THERMOPLASTIC GELS

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

#### 1.1 Identification of the substance or preparation:

**Synonyms:** S1242, S1269, S1273, S1274, S1294, S1311, S1324, S1329

|                     |        |                         |                        |
|---------------------|--------|-------------------------|------------------------|
| <b>CAS No.</b>      | : N.A. | <b>Reference</b>        | : RAY/4025E Revision 5 |
| <b>EC index No.</b> | : N.A. | <b>NFPA code</b>        | : N.D.                 |
| <b>EINECS No.</b>   | : N.A. | <b>Molecular weight</b> | : N.A.                 |
| <b>RTECS No.</b>    | : N.A. | <b>Formula</b>          | : N.A.                 |

#### 1.2 Use of the substance or the preparation:

Sealant

#### 1.3 Company/undertaking identification:

TYCO ELECTRONICS RAYCHEM NV  
 Diestsesteenweg 692  
 B-3010 Kessel-Lo  
 Tel. : +32 16 35 14 83 / +32 16 35 13 41  
 Fax : +32 16 35 16 89

#### 1.4 Telephone number for emergency:

+32 14 58 45 45  
 Brandweerinformatiecentrum voor gevaarlijke stoffen (B.I.G.)  
 Technische Schoolstraat 43A, B-2440 Geel

### 2. Composition/information on ingredients

Thermoplastic gels comprising polymeric materials and very highly refined mineral oils

| Hazardous ingredients | CAS No.<br>EINECS No. | Conc.<br>in % | Hazard<br>symbol | Risks<br>(R-phrases) |
|-----------------------|-----------------------|---------------|------------------|----------------------|
| Not applicable        | -                     | -             | -                | -                    |

### 3. Hazards identification

- No hazard classification in accordance with EC-directives 67/548/EEC and 1999/45/EC

### 4. First aid measures

#### 4.1 Eye contact:

- Hold eyelids apart and flush eyes with clean water for 15 minutes
- Consult a doctor/medical service if irritation persists

#### 4.2 Skin contact:

- Not applicable

#### 4.3 After inhalation:

- Not applicable

#### 4.4 After ingestion:

- Not applicable
- Consult a doctor/medical service if symptoms develop

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## 5. Fire-fighting measures

### 5.1 Suitable extinguishing media:

- Polyvalent foam
- ABC powder
- Carbon dioxide

### 5.2 Unsuitable extinguishing media:

- Solid water jet ineffective as extinguishing medium

### 5.3 Special exposure hazards:

- Hazardous decomposition products may be evolved in a fire

### 5.4 Instructions:

- Dilute toxic gases with water spray

### 5.5 Special protective equipment for firefighters:

- Heat/fire exposure: compressed air/oxygen apparatus
- Heat/fire exposure: gas-tight suit

## 6. Accidental release measures

### 6.1 Personal protection/precautions: see heading 8.1/8.3/10.3

### 6.2 Environmental precautions:

- Not applicable

### 6.3 Methods for cleaning up:

- Pick up for continued use or disposal

## 7. Handling and storage

### 7.1 Handling:

- Observe normal hygiene standards

### 7.2 Storage:

- Store in a cool area
- Store in a dry area
- Store in a well-ventilated area
- Keep out of direct sunlight
- Keep away from: heat sources, oxidizing agents

|                         |                    |    |
|-------------------------|--------------------|----|
| Storage temperature     | : N.D.             | °C |
| Quantity limits         | : N.D.             | kg |
| Storage life            | : N.D.             |    |
| Materials for packaging | :                  |    |
| - suitable              | :no data available |    |
| - to avoid              | :no data available |    |

### 7.3 Specific uses:

- Refer to Tyco Electronics product installation instructions

## 8. Exposure controls/Personal protection

### 8.1 Exposure limit values:

TLV-TWA : not listed  
TLV-STEL : not listed  
TLV-Ceiling : not listed

OES-LTEL : not listed  
OES-STEL : not listed  
MEL-LTEL : not listed  
MEL-STEL : not listed

MAK : not listed  
TRK : not listed

MAC-TGG 8 h : not listed  
MAC-TGG 15 min. : not listed  
MAC-Ceiling : not listed

VME-8 h : not listed  
VLE-15 min. : not listed

GWBB-8 h : not listed  
GWK-15 min. : not listed  
Momentary value : not listed

EC : not listed  
EC-STEL : not listed

#### Sampling methods:

- Not applicable

### 8.2 Exposure controls:

#### 8.2.1 Occupational exposure controls:

- Not required for normal conditions of use

#### 8.2.2 Environmental exposure controls: see heading 13

### 8.3 Personal protection:

#### 8.3.1 respiratory protection:

- Not required for normal conditions of use

#### 8.3.2 hand protection:

- Not required for normal conditions of use  
Suitable materials: No data available
- Breakthrough time: N.D.

#### 8.3.3 eye protection:

- Not required for normal conditions of use

#### 8.3.4 skin protection:

- Not required for normal conditions of use  
Suitable materials: No data available

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## 9. Physical and chemical properties

### 9.1 General information:

|                      |   |
|----------------------|---|
| Appearance (at 20°C) | : Solid gel supplied in a black plastic shell or in strip/gasket form |
| Odour                | : Almost odourless  |
| Colour               | : Variable in colour, depending on the composition                    |

### 9.2 Important health, safety and environmental information:

|                                       |             |            |
|---------------------------------------|-------------|------------|
| pH value                              | : N.D.      |            |
| Boiling point/boiling range           | : N.D.      | °C         |
| Flashpoint                            | : > 250     | °C         |
| Explosion limits                      | : N.D.      | vol% ( °C) |
| Vapour pressure (at 20°C)             | : N.D.      | hPa        |
| Vapour pressure (at 50°C)             | : N.D.      | hPa        |
| Relative density (at 20°C)            | : 0.9       |            |
| Water solubility                      | : Insoluble |            |
| Soluble in                            | : N.D.      |            |
| Relative vapour density               | : N.D.      |            |
| Viscosity                             | : N.D.      | Pa.s       |
| Partition coefficient n-octanol/water | : N.D.      |            |
| Evaporation rate                      |             |            |
| ratio to butyl acetate                | : N.D.      |            |
| ratio to ether                        | : N.D.      |            |

### 9.3 Other information:

|                             |         |                  |
|-----------------------------|---------|------------------|
| Melting point/melting range | : N.D.  | °C               |
| Auto-ignition point         | : > 360 | °C               |
| Saturation concentration    | : N.D.  | g/m <sup>3</sup> |

## 10. Stability and reactivity

### 10.1 Conditions to avoid/reactivity:

- Stable under normal conditions
- Ignition in air may occur at high temperatures (above 300°C)

### 10.2 Materials to avoid:

- Keep away from: heat sources, oxidizing agents

### 10.3 Hazardous decomposition products:

- Thermal decomposition/combustion products may include, but are not limited to: carbon dioxide, carbon monoxide, hydrocarbons, hydrogen chloride and oxides of nitrogen and phosphorus

## 11. Toxicological information

### 11.1 Acute toxicity:

|                     |        |          |
|---------------------|--------|----------|
| LD50 oral rat       | : N.D. | mg/kg    |
| LD50 dermal rat     | : N.D. | mg/kg    |
| LD50 dermal rabbit  | : N.D. | mg/kg    |
| LC50 inhalation rat | : N.D. | mg/l/4 h |
| LC50 inhalation rat | : N.D. | ppm/4 h  |

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### 11.2 Chronic toxicity:

|                        |              |
|------------------------|--------------|
| EC carc. cat.          | : not listed |
| EC muta. cat.          | : not listed |
| EC repr. cat.          | : not listed |
| Carcinogenicity (TLV)  | : not listed |
| Carcinogenicity (MAC)  | : not listed |
| Carcinogenicity (VME)  | : not listed |
| Carcinogenicity (GWBB) | : not listed |
| Carcinogenicity (MAK)  | : not listed |
| Mutagenicity (MAK)     | : not listed |
| Teratogenicity (MAK)   | : not listed |
| IARC classification    | : not listed |

### 11.3 Routes of exposure: skin

### 11.4 Acute effects/symptoms:

- **AFTER INHALATION**
  - Not a normal route of exposure
- **AFTER INGESTION**
  - Acute oral toxicity is expected to be low, based on available data for ingredients
- **AFTER ABSORPTION OF HIGH QUANTITIES:**
  - Nausea
  - Diarrhoea
- **AFTER EYE CONTACT**
  - Irritation of the eye tissue
  - Lacrimation
  - Redness of the eye tissue
- **AFTER SKIN CONTACT**
  - Unlikely to cause irritation, or to present a risk to health through skin absorption, under normal conditions

### 11.5 Chronic effects:

- None known

## 12. Ecological information

### 12.1 Ecotoxicity:

- No data available

### 12.2 Mobility:

- Volatile organic compounds (VOC): N.D. %
- Insoluble in water

For other physicochemical properties see heading 9.

### 12.3 Persistence and degradability:

|                                   |   |           |        |
|-----------------------------------|---|-----------|--------|
| - biodegradation BOD <sub>5</sub> | : | N.D.      | % ThOD |
| - water                           | : | - N.D.    |        |
| - soil                            | : | T ½: N.D. | days   |

### 12.4 Bioaccumulative potential:

|                       |   |      |
|-----------------------|---|------|
| - log P <sub>ow</sub> | : | N.D. |
| - BCF                 | : | N.D. |

### 12.5 Other adverse effects:

- WGK : N.D.
- Effect on the ozone layer : Not dangerous for the ozone layer (1999/45/EC)
- Greenhouse effect : no data available
- Effect on waste water purification : no data available

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## 13. Disposal considerations

### 13.1 Provisions relating to waste:

- Waste material code (75/442/EEC, Council Decision 2001/118/EC, O.J. L47 of 16/2/2001): 07 02 99 (wastes not otherwise specified)
- Waste material code (Flanders): 567

### 13.2 Disposal methods:

- Dispose of by incineration with energy recovery, or by methods in accordance with national and local regulations

### 13.3 Packaging/Container:

- No data available

## 14. Transport information

### 14.1 Classification of the substance in compliance with UN Recommendations

UN number :  
CLASS :  
SUB RISKS :  
PACKING :  
PROPER SHIPPING NAME :

### 14.2 ADR (transport by road)

CLASS : NOT SUBJECT  
PACKING :  
DANGER LABEL TANKS :  
DANGER LABEL PACKAGES :

### 14.3 RID (transport by rail)

CLASS :  
PACKING :  
DANGER LABEL TANKS :  
DANGER LABEL PACKAGES :

### 14.4 ADNR (transport by inland waterways)

CLASS : NOT SUBJECT  
PACKING :  
DANGER LABEL TANKS :  
DANGER LABEL PACKAGES :

### 14.5 IMDG (maritime transport)

CLASS : NOT SUBJECT  
SUB RISKS :  
PACKING :  
MFAG :  
EMS :  
MARINE POLLUTANT :

### 14.6 ICAO (air transport)

CLASS : NOT SUBJECT  
SUB RISKS :  
PACKING :  
PACKING INSTRUCTIONS PASSENGER AIRCRAFT :  
PACKING INSTRUCTIONS CARGO AIRCRAFT :

### 14.7 Special precautions in connection with transport

: not restricted for any mode of international transport

### 14.8 Limited quantities (LQ)

:

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## 15. Regulatory information

Classification according to directives 67/548/EEC and 1999/45/EC (\*\*: see heading 16)

NOT APPLICABLE

## 16. Other information

Users are advised that they may have additional disclosure obligations under other national and local laws. Users are advised to ensure that this information is brought to the attention of all employees, agents, and contractors handling this product. Users of Tyco Electronics products should make their own evaluation to determine the suitability of each such product for the specific application and to establish safe handling and installation procedures. Distributors of this product are advised to forward this document, or the information contained herein, to every purchaser of this product.

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**N.A.** = NOT APPLICABLE  
**N.D.** = NOT DETERMINED  
**\*** = INTERNAL CLASSIFICATION

### (\*\*) Labelling:

The labelling of the substance described in this MSDS complies with the provisions of Directive 1999/45/EC of 31 May 2001, published in the Official Journal of the European Communities L 200 of 30/07/1999. This Directive replaces Directive 88/379/EEC of 7 June 1988, published in the Official Journal of the European Communities L 187 of 16/07/1988.

Member States shall apply the laws, regulations and administrative provisions referred to in article 22 of this Directive:

- (a) to preparations not within the scope of Directive 91/414/EEC or Directive 98/8/EC as from 30 July 2002; and
- (b) to preparations within the scope of Directive 91/414/EEC or Directive 98/8/EC as from 30 July 2004.

### Exposure limits:

**TLV** : Threshold Limit Value - ACGIH USA 2000  
**OES** : Occupational Exposure Standards - United Kingdom 1999  
**MEL** : Maximum Exposure Limits - United Kingdom 1999  
**MAK** : Maximale Arbeitsplatzkonzentrationen - Germany 2001  
**TRK** : Technische Richtkonzentrationen - Germany 2001  
**MAC** : Maximale aanvaarde concentratie - The Netherlands 2002  
**VME** : Valeurs limites de Moyenne d'Exposition - France 1999  
**VLE** : Valeurs limites d'Exposition à court terme - France 1999  
**GWBB** : Grenswaarde beroepsmatige blootstelling - Belgium 1998  
**GWK** : Grenswaarde kortstondige blootstelling - Belgium 1998  
**EC** : Indicative occupational exposure limit values - directive 2000/39/EC

**I** : Inhalable fraction = **T**: Total dust = **E**: Einatembarer Aerosolanteil  
**R** : Respirable fraction = **A**: Alveolengängiger Aerosolanteil/Alveolar dust  
**C** : Ceiling limit

|            |                  |              |                   |            |
|------------|------------------|--------------|-------------------|------------|
| <b>a:</b>  | aerosol          | <b>r:</b>    | rook/Rauch        | (fume)     |
| <b>d:</b>  | damp (vapour)    | <b>st:</b>   | stof/Staub        | (dust)     |
| <b>du:</b> | dust             | <b>ve:</b>   | vezel             | (fibre)    |
| <b>fa:</b> | Faser (fibre)    | <b>va:</b>   | vapour            |            |
| <b>fi:</b> | fibre            | <b>om:</b>   | oil mist          |            |
| <b>fu:</b> | fume             | <b>on:</b>   | olienevel/Ölnebel | (oil mist) |
| <b>p:</b>  | poussière (dust) | <b>part:</b> | particles         |            |

### Chronic toxicity:

**K** : List of the carcinogenic substances and processes - The Netherlands 2002