SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: Self Cure Activator

1.2 Relevant identified uses of the substance or mixture and uses advised against

Application of the substance / the mixture: Activator

Uses advised against: No further relevant information available.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:
Dentsply DeTrey GmbH
De-Trey-Str. 1
D-78467 Konstanz
GERMANY
Tel.: +49-(0)7531-583-0
Fax: +49-(0)7531-583-104
email: KonstanzDEU.info-sdb@dentsplysirona.com

Further information obtainable from:
- Department Research & Development for technical information
- Department Marketing & Sales for distribution of the safety data sheets

1.4 Emergency telephone number:
+49-(0)7531-583-0 8:00 - 17:00 (GMT + 1:00)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Flam. Liq. 2 H225 Highly flammable liquid and vapour.
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.
STOT SE 3 H336 May cause drowsiness or dizziness.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008
The product is classified and labelled according to the CLP regulation.

Hazard pictograms

GHS02 GHS07

Signal word Danger

Hazard-determining components of labelling:
acetone
2-hydroxyethyl methacrylate
4-(dimethylamino)benzonitrile

Hazard statements
H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H336 May cause drowsiness or dizziness.

Precautionary statements
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

(Contd. on page 2)
Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 12.12.2017
Revision: 12.12.2017
Version number 4

Trade name: Self Cure Activator

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or 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.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· Additional information:
As this product is a medical device in the meaning of Directive 93/42/EEC and intended for use by the end consumer and is applied in an invasive manner or body contact, it is exempt from the labelling requirements according to regulation 1272/2008.

· 2.3 Other hazards
· Results of PBT and vPvB assessment
· PBT: Not applicable.
· vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures
· Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:

<table>
<thead>
<tr>
<th>CAS</th>
<th>EINECS</th>
<th>Description</th>
<th>Hazard Phrases</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-64-1</td>
<td>200-662-2</td>
<td>acetone</td>
<td>Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336</td>
<td>50 – 100%</td>
</tr>
<tr>
<td>105883-40-7</td>
<td></td>
<td>Urethane Dimethacrylate Resin</td>
<td>Skin Irrit. 2, H315; Eye Irrit. 2, H319</td>
<td>10 – 25%</td>
</tr>
<tr>
<td>868-77-9</td>
<td>212-782-2</td>
<td>2-hydroxyethyl methacrylate</td>
<td>Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335</td>
<td>2.5 – 10%</td>
</tr>
<tr>
<td>143-66-8</td>
<td>205-605-5</td>
<td>sodium tetraphenylborate</td>
<td>Acute Tox. 3, H301</td>
<td>≥0.1 – ≤2.5%</td>
</tr>
<tr>
<td>75980-60-8</td>
<td>278-355-8</td>
<td>Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide</td>
<td>Repr. 2, H361f; Aquatic Chronic 2, H411</td>
<td>≥0.25 – ≤2.5%</td>
</tr>
<tr>
<td>1197-19-9</td>
<td>214-819-8</td>
<td>4-(dimethylamino)benzonitrile</td>
<td>Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335</td>
<td>≥0.1 – ≤1%</td>
</tr>
</tbody>
</table>

· Additional information For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· 4.1 Description of 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. If symptoms persist, consult a doctor.
· After swallowing If symptoms persist consult doctor.

· 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.

· Information for doctor No further relevant information available.

· 4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.
SECTION 5: Firefighting measures

- 5.1 Extinguishing media
  - Suitable extinguishing agents
    CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
  - For safety reasons unsuitable extinguishing agents
    Water with full jet.
- 5.2 Special hazards arising from the substance or mixture
  No further relevant information available.
- 5.3 Advice for firefighters
  - Protective equipment: Self-contained respiratory protective device.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures
  Wear protective equipment. Keep unprotected persons away.
- 6.2 Environmental precautions:
  Prevent seepage into sewage system, workpits and cellars.
  Do not allow to enter sewers/surface or ground water.
- 6.3 Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Ensure adequate ventilation.
  Do not flush with water or aqueous cleansing agents.
- 6.4 Reference to other sections
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling
  Observe normal care for working with chemicals.
  Prevent formation of aerosols.
  Ensure good ventilation/exhaustion at the workplace.
- Handling
  Product is intended for dental use only.
- Information about fire and explosion protection:
  Keep ignition sources away - Do not smoke.
  Protect against electrostatic charges.
- 7.2 Conditions for safe storage, including any incompatibilities
  - Storage
    Requirements to be met by storerooms and receptacles: Store in a cool location.
    Information about storage in one common storage facility: Store away from oxidising agents.
    Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles.
  - 7.3 Specific end use(s)
    No further relevant information available.

SECTION 8: Exposure controls/personal protection

- Additional information about design of technical facilities
  No further data; see item 7.
Trade name: Self Cure Activator

- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**
  - CAS: 67-64-1 acetone
    - WEL: Short-term value: 3620 mg/m³, 1500 ppm
    - Long-term value: 1210 mg/m³, 500 ppm

- **Regulatory information**
  - WEL: EH40/2011
  - Additional information: The lists valid during the making were used as basis.

- **8.2 Exposure controls**
  - **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.
      - Avoid contact with the eyes and skin.
    - **Respiratory protection:** Not necessary if room is well-ventilated.
    - **Protection of hands:**
      - Protective gloves.
      - The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
      - 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.
      - Butyl rubber, BR
      - Recommended thickness of the material: ≥ 0.7 mm
      - Permeation: Level ≥6
    - **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:**
      - Tightly sealed goggles.
    - **Body protection:** Protective work clothing.

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**SECTION 9: Physical and chemical properties**

- **9.1 Information on basic physical and chemical properties**
  - **General Information**
    - **Appearance:**
      - Form: Fluid
      - Colour: Light yellow
    - **Odour:** Acetone-like
    - **Odour threshold:** Not determined.
    - **pH-value at 20 °C:** 7
    - **Change in condition**
      - Melting point/freezing point: undetermined
6.0.7

6. Initial boiling point and boiling range:
   56 °C (Aceton)

6. Flash point:
   2 °C (Pensky-Marten closed cup)

6. Flammability (solid, gaseous):
   Not applicable.

6. Ignition temperature:
   465 °C

6. Decomposition temperature:
   Not determined.

6. Auto-ignition temperature:
   Product is not selfigniting.

6. Explosive properties:
   Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

6. Explosion limits:
   Lower: 2,6 Vol % (Aceton)
   Upper: 12,8 Vol % (Aceton)

6. Vapour pressure at 20 °C:
   233 hPa

6. Density at 20 °C:
   0,9 g/cm³

6. Relative density:
   Not determined.

6. Vapour density:
   Not determined.

6. Evaporation rate:
   Not determined.

6. Solubility in / Miscibility with Water:
   Partly miscible

6. Partition coefficient: n-octanol/water:
   Not determined.

6. Viscosity:
   Dynamic: Not determined.
   Kinematic: Not determined.

6. Solvent content:
   Organic solvents: 61,0 %
   Water: 16,0 %

6. Solids content:
   4,0 %

6.9.2 Other information
   No further relevant information available.

SECTION 10: Stability and reactivity

6.10.1 Reactivity
   No further relevant information available.

6.10.2 Chemical stability
   Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

6.10.3 Possibility of hazardous reactions
   No dangerous reactions known

6.10.4 Conditions to avoid
   No further relevant information available.

6.10.5 Incompatible materials
   No further relevant information available.

6.10.6 Hazardous decomposition products
   No dangerous decomposition products known

SECTION 11: Toxicological information

6.11.1 Information on toxicological effects
   Acute toxicity: Based on available data, the classification criteria are not met.

6.11.2 LD/LC50 values relevant for classification:

   ATE (Acute Toxicity Estimate)
   Oral LD50 14,400 mg/kg (rat)

   CAS: 67-64-1 acetone
   Oral LD50 5,800 mg/kg (rat)
**Trade name: Self Cure Activator**

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50</th>
<th>LC50/4 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermal</td>
<td>20,000 mg/kg</td>
<td>76 mg/l</td>
</tr>
<tr>
<td>Inhalative</td>
<td>680-77-9 2-hydroxyethyl methacrylate</td>
<td></td>
</tr>
</tbody>
</table>

Oral LD50 >5,000 mg/kg (rat)
Dermal LD50 >3,000 mg/kg (rabbit)

CAS: 143-66-8 sodium tetraphenylborate

Oral LD50 288 mg/kg (rat)

CAS: 75980-60-8 Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Oral LD50 5,000 mg/kg (rat)

CAS: 1197-19-9 4-(dimethylamino)benzonitrile

Oral LD50 500 mg/kg (ATE)

- **Primary irritant effect:**
  - Skin corrosion/irritation
    Causes skin irritation.
  - Serious eye damage/irritation
    Causes serious eye irritation.
  - Respiratory or skin sensitisation
    Repeated or prolonged contact with the not polymerized product may cause sensitization for acrylates / methacrylates.
    May cause an allergic skin reaction.
  - CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
  - Germ cell mutagenicity
    Based on available data, the classification criteria are not met.
  - Carcinogenicity
    Based on available data, the classification criteria are not met.
  - Reproductive toxicity
    Based on available data, the classification criteria are not met.
  - STOT-single exposure
    May cause drowsiness or dizziness.
  - STOT-repeated exposure
    Based on available data, the classification criteria are not met.
  - Aspiration hazard
    Based on available data, the classification criteria are not met.

**SECTION 12: Ecological information**

- **12.1 Toxicity**

  - Aquatic toxicity:

    CAS: 67-64-1 acetone
    LC50/96h 5,540 mg/l (Fish acute toxicity study)
    EC50/48h 6,100 mg/L (daphnia magna)

    CAS: 868-77-9 2-hydroxyethyl methacrylate
    LC50/96h >100 mg/l (Fish acute toxicity study)
    EC50/48h 380 mg/L (daphnia magna)

    CAS: 143-66-8 sodium tetraphenylborate
    EC50/48h 32 mg/L (daphnia magna)

    CAS: 75980-60-8 Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
    LC50/48h 6.53 mg/l (Fish acute toxicity study)

- **12.2 Persistence and degradability**
  No further relevant information available.

- **12.3 Bioaccumulative potential**
  No further relevant information available.

- **12.4 Mobility in soil**
  No further relevant information available.

- **Additional ecological information:**
  - General notes:
    Do not allow product to reach ground water, water course or sewage system.
    Danger to drinking water if even small quantities leak into the ground.
  - **12.5 Results of PBT and vPvB assessment**
    - PBT: Not applicable.

(Contd. on page 7)
Trade name: Self Cure Activator

- vPvB: Not applicable.
- 12.6 Other adverse effects: No further relevant information available.

**SECTION 13: Disposal considerations**

- 13.1 Waste treatment methods
  - Recommendation
    Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- European waste catalogue
  - 18 01 06* chemicals consisting of or containing hazardous substances
    - HP 3 Flammable
    - HP 4 Irritant - skin irritation and eye damage
    - HP 5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity

- Uncleaned packaging:
  - Recommendation: Disposal must be made according to official regulations.

**SECTION 14: Transport information**

- 14.1 UN-Number
  - ADR, IMDG, IATA: UN1090

- 14.2 UN proper shipping name
  - ADR: 1090 ACETONE mixture
  - IMDG, IATA: ACETONE mixture

- 14.3 Transport hazard class(es)
  - ADR
    - Class: 3 (F1) Flammable liquids.
    - Label: 3
  - IMDG, IATA
    - Class: 3 Flammable liquids.
    - Label: 3

- 14.4 Packing group
  - ADR, IMDG, IATA: II

- 14.5 Environmental hazards:
  - Not applicable.

- 14.6 Special precautions for user
  - Warning: Flammable liquids.
  - Danger code (Kemler): 33
  - EMS Number: F-E-S-E

(Contd. on page 8)
Trade name: Self Cure Activator  

- **Stowage Category**  E  
- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**  Not applicable.  
- **Transport/Additional information:**  
  - **ADR**  
    - Limited quantities (LQ)  1L  
    - Excepted quantities (EQ)  Code: E2  
      - Maximum net quantity per inner packaging: 30 ml  
      - Maximum net quantity per outer packaging: 500 ml  
  - **Transport category**  2  
  - **Tunnel restriction code**  D/E  
  - **IMDG**  
    - Limited quantities (LQ)  1L  
    - Excepted quantities (EQ)  Code: E2  
      - Maximum net quantity per inner packaging: 30 ml  
      - Maximum net quantity per outer packaging: 500 ml  
- **UN "Model Regulation":**  
  - UN 1090 ACETONE MIXTURE, 3, II 

### SECTION 15: Regulatory information  

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**  
  - **Directive 2012/18/EU**  
  - **Named dangerous substances - ANNEX I** None of the ingredients is listed.  
  - **Seveso category P5c FLAMMABLE LIQUIDS**  
  - **Qualifying quantity (tonnes) for the application of lower-tier requirements**  5,000 t  
  - **Qualifying quantity (tonnes) for the application of upper-tier requirements**  50,000 t  
  - **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3  
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out. 

### SECTION 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 attached safety data sheet covers the dangers and measures to be taken when large quantities of material are released, for example due to accidents during transport or storage by the dealer.

For quantities of material typically used in clinical practice, information necessary for safe use and storage of the product is given in the DFU.

- **Relevant phrases**  
  - H225  Highly flammable liquid and vapour.  
  - H301  Toxic if swallowed.  
  - H302  Harmful if swallowed.  
  - H315  Causes skin irritation.  
  - H317  May cause an allergic skin reaction.  
  - H319  Causes serious eye irritation.  
  - H335  May cause respiratory irritation.  
  - H336  May cause drowsiness or dizziness.  
  - H361f  Suspected of damaging fertility.  
  - H411  Toxic to aquatic life with long lasting effects.  

- **Department issuing SDS: Research & Development**  
- **Contact:** HotLine for urgent technical support: +49-7531-583-350  

(Contd. on page 9)
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)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 2: Flammable liquids – Category 2
Acute Tox. 3: Acute toxicity – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
Repr. 2: Reproductive toxicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

* Data compared to the previous version altered.