

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 01/25/2007

Reviewed on 01/25/2007

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## 1 Identification of substance:

**. Product details:**

**. Trade name:** T1 Spray

**. Application of the substance / the preparation** Attachment for dental instruments

**. Manufacturer/Supplier:** Supplier: SIRONA Dental System GmbH  
Fabrikstraße 31  
D-64625 Bensheim

<http://www.sirona.de>

Telefon: +49(0)6251/16-3440

Telefax: +49(0)6251/16-2935

Manufacturer: Graichen Produktions-und Vertriebs-GmbH  
Darmstädterstraße 127-129  
D-64625 Bensheim

**. Information department:** Enviroment protection department

**. Emergency information:** Advice centre for poisoning university Mainz phone +49(0)6131/19240  
or poison information: +49(0)700/GIFTINFO

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## 2 Composition/Data on components:

**. Chemical characterization**

**. Description:** Active substance with propellant.

Additional information:

Active substance: Synthetic hydrogencarbon-oil, esteroil  
no dangerous components 67,5 - 25 %

**. Dangerous components:**

Spezialbenzin	Xn, Xi, F, N; R 11-38-51/53-65-67	10-25%
106-97-8 butane (containing ≤ 0,1 % butadiene (106-99-0))	F+; R 12	10-25%
74-98-6 propane	F+; R 12	10-25%
75-28-5 isobutane (containing ≤ 0,1 % butadiene (106-99-0))	F+; R 12	2.5-10%

## 3 Hazards identification

**. Hazard description:** Xi Irritant  
F+ Extremely flammable

**. Information pertaining to particular dangers for man 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.

Warning! Pressurized container.

Has a narcotizing effect.

R 12 Extremely flammable.

R 38 Irritating to skin.

R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

R 67 Vapours may cause drowsiness and dizziness

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking.

Buildup of explosive mixtures possible without sufficient ventilation.

Keep out of the reach of children.

**. Classification system**

The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.

**. NFPA ratings (scale 0-4)**

Health = 1

Fire = 4

Reactivity = 3

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- . Additional information:** *Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.  
Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition. No smoking.  
Without adequate ventilation formation of explosive mixtures may be possible*

### \* 4 First aid measures

- . General information** *Personal protection for the First Aider.*
- . 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.  
If skin irritation continues, consult a doctor.*
- . After eye contact** *Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.*
- . After swallowing** *Seek immediate medical advice.  
A person vomiting while lying on their back should be turned onto their side.*

### \* 5 Fire fighting measures

- . Suitable extinguishing agents** *CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.*
- . For safety reasons unsuitable extinguishing agents** *Water with full jet.*
- . Special hazards caused by the material, its products of combustion or resulting gases:** *In case of fire, the following can be released:  
Carbon monoxide (CO)  
Carbondioxid (CO<sub>2</sub>)*
- . Protective equipment:** *Wear self-contained respiratory protective device.*
- . Additional information** *Cool endangered receptacles with water spray.*

### \* 6 Accidental release measures

- . Person-related safety precautions:** *Keep away from ignition sources*
- . Measures for environmental protection:** *Do not allow product to reach sewage system or any water course.  
Inform respective authorities in case of seepage into water course or sewage system.*
- . Measures for cleaning/collecting:** *Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.*

### 7 Handling and storage

- . Handling**
- . Information for safe handling:** *Open and handle receptacle with care.  
No special precautions are necessary if used correctly.*
- . Information about protection against explosions and fires:** *Keep away from ignition sources - Do not smoke.  
Protect against electrostatic charges.  
Beware: Container is pressurized. Keep away from direct sun exposure and temperatures over 50°C. Do not open by force or throw into fire even after use.  
Do not spray on flames or red-hot objects.*
- . Storage**
- . Requirements to be met by storerooms and receptacles:** *Store in a cool location.  
Observe official regulations on storing packagings with pressurized containers.*
- . Information about storage in one common storage facility:** *Store away from foodstuffs.*

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**Further information about storage conditions:**

Keep receptacle tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.  
Protect from heat and direct sunlight.

### \* 8 Exposure controls and personal protection

**Additional information about design of technical systems:**

No further data; see item 7.

**Components with limit values that require monitoring at the workplace:**

EINECS: 265-151-9 Naphhta (petroleum), hydrotreated light  
AGW 600 mg/m<sup>3</sup>, 170ml/m<sup>3</sup> (german rule)

**106-97-8 butane (containing ≤ 0,1 % butadiene (106-99-0))**

REL 1900 mg/m<sup>3</sup>, 800 ppm

TLV 1900 mg/m<sup>3</sup>, 800 ppm

**74-98-6 propane**

PEL 1800 mg/m<sup>3</sup>, 1000 ppm

REL 1800 mg/m<sup>3</sup>, 1000 ppm

TLV (4508) mg/m<sup>3</sup>, (2500) ppm

**75-28-5 isobutane (containing ≤ 0,1 % butadiene (106-99-0))**

REL 1900 mg/m<sup>3</sup>, 800 ppm

**Additional information:**

The lists that were valid during the creation 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.  
Avoid contact with the eyes and skin.

**Breathing equipment:**

Use suitable respiratory protective device in case of insufficient ventilation.

**Protection of hands:**

Solvent resistant gloves

**Material of gloves**

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0,7 mm

**Penetration time of glove material**

Value for the permeation: Level ≥ 0,7 mm 480 min(8h) EN 374

The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

**Eye protection:**

Tightly sealed goggles.

### \* 9 Physical and chemical properties:

**General Information**

**Form:** Aerosol  
**Color:** Colorless  
**Odor:** Characteristic

**Change in condition**

**Melting point/Melting range:** undetermined  
**Boiling point/Boiling range:** -44°C (-47°F)

**Flash point:** -97°C (-143°F)

**Ignition temperature:** 200°C (392°F)

**Auto igniting:** Product is not selfigniting.

**Danger of explosion:**

Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

**Explosion limits:**

**Lower:** 1.1 Vol %  
**Upper:** 10.9 Vol %

**Vapor pressure at 20°C (68°F):** 8300 hPa (6226 mm Hg)

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- . **Density at 20°C (68°F):** 0.69259 g/cm<sup>3</sup>
- . **Solubility in / Miscibility with Water:** Not miscible or difficult to mix

### 10 Stability and reactivity

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

### 11 Toxicological information

- . **Acute toxicity:**
- . **LD/LC50 values that are relevant for classification:**
- Spezialbenzin**
- Oral LD50 > 2000 mg/kg (rat)
- Dermal LD50 > 2000 mg/kg (rabbit)
- Inhalative LC50/4 h > 20 mg/l (rat)
- . **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 product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:  
Irritant

### 12 Ecological information:

- . **Ecotoxicological effects:**
- . **Remark:** Harmful to fish
- . **General notes:** Water hazard class 1 (German Regulation) (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.  
Harmful to aquatic organisms

### \* 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.

### \* 14 Transport Information

- . **DOT regulations:**
- . **Hazard class:** 2.1
- . **Identification number:** UN1950
- . **Packing group:** -
- . **Proper shipping name (technical name):** AEROSOLS, flammable
- . **Label:** 2.1
- . **Land transport ADR/RID (cross-border)**
- . **ADR/RID class:** 2 5F Gases

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. <b>Danger code (Kemler):</b>	-
. <b>UN-Number:</b>	1950
. <b>Packaging group:</b>	-
. <b>Description of goods:</b>	1950 AEROSOLS
. <b>Maritime transport IMDG:</b>	
. <b>IMDG Class:</b>	2.1
. <b>UN Number:</b>	1950
. <b>Label</b>	2.1
. <b>Packaging group:</b>	-
. <b>EMS Number:</b>	F-D,S-U
. <b>Marine pollutant:</b>	No
. <b>Propper shipping name:</b>	AEROSOLS
. <b>Air transport ICAO-TI and IATA-DGR:</b>	
. <b>ICAO/IATA Class:</b>	2.1
. <b>UN/ID Number:</b>	1950
. <b>Label</b>	2.1
. <b>Packaging group:</b>	-
. <b>Propper shipping name:</b>	AEROSOLS, flammable

### \* 15 Regulations

. **SARA Section 355 (extremely hazardous substances)**

None of the ingredients is listed.

. **SARA Section 313 (specific toxic chemical listings)**

106-99-0 1,3-butadiene buta-1,3-diene

. **TSCA (Toxic Substances Control Act)**

106-97-8 butane (containing  $\leq 0,1$  % butadiene (106-99-0))

74-98-6 propane

75-28-5 isobutane (containing  $\leq 0,1$  % butadiene (106-99-0))

106-99-0 1,3-butadiene buta-1,3-diene

. **Prop 65 - Chemicals known to cause cancer**

106-99-0 1,3-butadiene buta-1,3-diene

. **Carcinogenity categories**

. **EPA (Environmental Protection Agency)**

106-99-0 1,3-butadiene buta-1,3-diene

B2

. **IARC (International Agency for Research on Cancer)**

106-99-0 1,3-butadiene buta-1,3-diene

2A

. **NTP (National Toxicology Program)**

106-99-0 1,3-butadiene buta-1,3-diene

K

. **TLV (Threshold Limit Value established by ACGIH)**

106-99-0 1,3-butadiene buta-1,3-diene

A2

. **MAK (German Maximum Workplace Concentration)**

106-99-0 1,3-butadiene buta-1,3-diene

1

. **NIOSH-Ca (National Institute for Occupational Safety and Health)**

106-99-0 1,3-butadiene buta-1,3-diene

. **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

. **Markings 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  
F+ Extremely flammable

. **Risk phrases:**

12 Extremely flammable.  
38 Irritating to skin.  
52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

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**. Safety phrases:**

- 67 Vapours may cause drowsiness and dizziness
- 2 Keep out of the reach of children.
- 3 Keep in a cool place.
- 9 Keep container in a well-ventilated place.
- 23 Do not breathe fumes / aerosol
- 29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point
- 46 If swallowed, seek medical advice immediately and show this container or label.
- 51 Use only in well-ventilated areas.

**. Special labeling of certain preparations:**

Identification as aerosol under § 6(3) Ordinance on Hazardous Materials (GefStoffV):  
 Keep away from sources of ignition.  
 No smoking.  
 Keep out of the reach of children.  
 Without adequate ventilation formation of explosive mixtures may be possible.  
 Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.  
 Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking.  
 Buildup of explosive mixtures possible without sufficient ventilation.  
 Keep out of the reach of children.

**. National regulations****. Technical instructions (air):**

Class	Share in %
NK	25-50

**. Water hazard class:**

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

<b>16 Other information:</b>
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*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:** Environment protection department.
- . Contact:** Mr. Roland Fell
- . \* Data compared to the previous version altered.**