

EU Safety Data Sheet acc. to 91/155/EEC

1. Company/substance and preparation designation




| | |
|--------------------------------|---|
| <u>Article description:</u> | CEREC Optispray |
| <u>Manufacturer:</u> | Sirona Dental Systems GmbH Fabrikstrasse 31 D-64625 Bensheim - Germany www.sirona.com |
| <u>Emergency phone number:</u> | Poison Information Center in Mainz +49 (0)6131/19240 Poison information: +49(0)700/4438-4636 |

2. Possible dangers



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

3. Composition / specifications of constituents

| <u>Dangerous substances:</u> | | | | | | |
|------------------------------|----------------|-------------------|--|--|-------------------|--------------|
| <u>Designation:</u> | <u>CAS-No.</u> | <u>EINECS-No.</u> | <u>ID.</u> | | <u>R-phrases</u> | <u>Wt. %</u> |
| Ethanol | 64-17-5 | 200-578-6 | F  | | 11 | < 3 |
| n-Pentane | 109-66-0 | 203-692-4 | F+,Xn,N    | | 12-51/53-65-66-67 | < 7 |
| Heptafluoropropane | 431-89-0 | 207-079-2 | exempt from EU labeling requirements | | | > 90 |

4. First aid measures

After inhalation:

Self-protection of first aid personnel. Expose the persons affected to fresh air. Expose the persons affected to fresh air and put them in a semi-erect position. In case of considerable exposure, medical treatment is required.

After skin contact:

No measures are required following brief contact; consult a physician in case of freeze burns.

After eye contact:

Possible discomfort due to foreign particle effect. Rinse eye(s) thoroughly with plenty of water with the eyelid open. If the discomfort persists: Consult an eye specialist.

After swallowing:

Impossible.

5. Measures for fire fighting:

Suitable extinguishing agents:

All known extinguishing agents can be used.

Special dangers due to the substance, its combustion products or resulting gases:

In case of fire, carbon monoxide, hydrogen fluoride and carbonyl fluoride may be released.

Special protective equipment for fire fighting:

In case hazardous substances exhibit extremely harmful effects, use a breathing apparatus which is independent of the ambient air and wear a chemical protection suit.

EU Safety Data Sheet acc. to 91/155/EEC

6. Measures in case of unintentional release

Person-related precautionary measures:

Ventilate sufficiently and eliminate leaky containers.

Environmental protection measures:

Try to stop gas leakage. Use a breathing apparatus which is independent of the ambient air when entering lower rooms.

Methods for cleaning/collection:

After gases have evaporated, collect the residue with universal absorbent. Caution: the contained substances are extremely flammable.

7. Handling and storage

Notes on safe handling:

Container is pressurized! Do not open by force or burn; do not spray toward flames or red-hot bodies.

Notes on fire and explosion protection:

Do not open by force or burn even after use! Discard only when completely empty.

Keep out of the reach of children!

Storage:

Store at room temperature in well ventilated rooms. Protect against direct sunlight and temperatures exceeding 50°C. Keep away from sources of heat. Do not smoke!

Further information on storage conditions:

Observe storage regulations acc. to TRG 300.

Storage class:

2B

8. Exposure limitation and personal protective equipment

Constituents with workplace-related limits to be monitored:

| <u>CAS No.</u> | <u>Designation:</u> | <u>Value</u> | <u>Unit</u> |
|----------------|---------------------|--------------|-----------------------|
| 64-17-5 | Ethanol | TRGS 900 | 960mg/m ³ |
| 109-66-0 | n-Pentane | TRGS 900 | 3000mg/m ³ |

Personal protective equipment:

Respirator:

Not required.

Hand protection:

Not required.

Eye protection:

Sealed safety goggles

Body protection:

Not required.

General protection and hygienic measures:

Avoid inhaling gases and direct contact with skin and eyes. Do not eat, drink or smoke when working with these substances.

Additional information on design of technical installations:

Supply fresh air.

EU Safety Data Sheet acc. to 91/155/EEC

9. Physical and chemical properties

| | |
|------------------------------|---------------------------------------|
| <u>Form:</u> | liquefied gas |
| <u>Color:</u> | colorless |
| <u>Odor:</u> | alcoholic |
| <u>Safety-relevant data:</u> | |
| <u>Boiling point/ range:</u> | no information |
| <u>Ignition temperature:</u> | no information |
| <u>Flash point:</u> | < -15°C |
| <u>Vapor pressure:</u> | 4.0 bar at 20°C, 7.0 bar at 40°C_ |
| <u>Density:</u> | approx. 1.3 g/cm ³ at 20°C |
| <u>Solubility in water:</u> | No data available |
| <u>pH value:</u> | Not applicable |

10. Stability and reactivity

Conditions to be avoided:

Risk of bursting due to increase of internal pressure if overheated above 50°C.

Dangerous products of thermal decomposition:

Carbon monoxide, hydrogen fluoride and carbonyl fluoride.

11. Data on toxicology

Acute toxicity:

Not known

Classification-relevant LD/LC₅₀ values:

LD₅₀: Ethanol oral 7060 mg / kg (rat)

LC₅₀: Heptafluoropropane 800000ppm/4h

LD₅₀: n-Pentane oral 2000mg / kg (rat)

Primary irritant effect:

on skin:

cooling effect in the spray zone

on the eye:

Irritation due to foreign particle effect

on the respiratory organs:

Not known

Sensitization:

Not known

Additional toxicological information:

No specific poisonous effect is known. The gas has a numbing effect.

12. Data on ecology

Behavior in environmental compartments:

No data available

Ecotoxic effect:

No data available

Bacterial toxicity:

No data available

Additional information:

Do not discharge to groundwater, other waterways or sewage systems.

EU Safety Data Sheet acc. to 91/155/EEC

13. Information on disposal

Recommendation:

Completely empty cans with normal refuse; for cans with contents, ask local authorities.

Waste code number:

150104 (metal packaging)

Uncleaned packaging:

Toxic waste

14. Information on transport

Land transport ADR/RID and GGVS/GGVE (transborder / domestic)

ADR/RID-GGVS/E class: 2.1

Classification code: 5 F

Packaging group: -

UN number: 1950

Designation of goods: Compressed gas packs

Section 3.4 LQ 2 (1 L/30 kg) combined packaging

LQ 2 (1 L/20 kg) Shrink-wrapped or stretch-wrapped trays

Transport category: 2

Tunnel transport restriction code: B1D

Special requirements: SV 190, 327, 625

Sea transport IMDG/GGVSee:

IMDG/GGV Sea class: 2

Page:

UN number: 1950

EMS number: F-D, S-U

Packaging group: -

Proper technical name: Aerosols

Section 3.4 1 L/30 kg combined packaging

1 L/30 kg Shrink-wrapped or stretch-wrapped trays

Storage category: A

Keep away from sources of heat and separate from Class 1, except 1.4

Special requirements: 63, 190, 277, 327, 959

ICAO-TI and IATA-DGR air transport:

ICAO/IATA class: 2.1

UN/ID number: 1950

Proper technical name: Aerosols, flammable

PAX: Y 203/30 kg G

203/75 kg

CAO: 203/150 kg

Special requirements: A 145, A 153

EU Safety Data Sheet acc. to 91/155/EEC

15. Regulations

Code letters and danger designation:



R-phrases:

R 12 Extremely flammable

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

S-phrases:

S 9 Store containers in a well ventilated place

S 16 Keep away from sources of ignition – Do not smoke.

S 23 Do not breathe in spray

S 33 Take precautionary measures against static discharges

Aquatic hazard class:

1

Industrial safety and health ordinance:

Extremely flammable

Industrial Accident Ordinance:

Substance list appendix, No 8

Additional info:

National regulations: TRG 280 and 300 pressurized gases / special requirements for pressurized gas containers (compressed gas pack) Labeling: CONTAINER IS PRESSURIZED. PROTECT AGAINST DIRECT SUNLIGHT AND TEMPERATURES EXCEEDING 50 °C. DO NOT OPEN BY FORCE OR BURN EVEN AFTER USE. DO NOT SPRAY TOWARD FLAMES OR RED-HOT BODIES. KEEP AWAY FROM SOURCES OF IGNITION - DO NOT SMOKE. KEEP OUT OF THE REACH OF CHILDREN.

16. Other information

R-phrases from 3:

R 11 Highly flammable

R 12 Extremely flammable

R 51/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 65 Harmful: May cause lung damage if swallowed.

R 66 Repeated exposure may cause skin dryness or cracking.

R 67 Vapors may cause drowsiness and dizziness.

This information is based on our present knowledge. It does not, however, represent a guarantee of any product characteristics or the basis for any contractual legal relationship.

The recipient of our product is solely responsible for compliance with the existing laws and regulations.

Customs number: 32129090