

DENTSPLY GUTTA CORE

Chemwatch Independent Material Safety Data Sheet
Issue Date: 23-Apr-2013
9317SP

CHEMWATCH 35-4235
Version No:3.1.1.1
CD 2013/1 Page 1 of 10

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

DENTSPLY GUTTA CORE

PRODUCT USE

Obturing root canals.

SUPPLIER

Company: DENTSPLY (AUSTRALIA) PTY LTD
Address:
11 - 21 Gilby Road
Mount Waverley
VIC 3149
AUSTRALIA
Telephone: 1300 55 29 29
Emergency Tel: 1300 55 29 29 (Hours of operation:
Monday - Friday 9:00 am - 5:00 pm EST; General
information only)
Fax: +61 3 9538 8260

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

NON-HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. According to NOHSC Criteria, and ADG Code.

RISK

•None under normal operating conditions.

SAFETY

•None under normal operating conditions.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
zinc oxide	1314-13-2	>50
tungsten	7440-33-7	>30
isoprene homopolymer	9003-31-0	<30
titanium dioxide	13463-67-7	<20
poly(terephthaloylchloride- p- phenylene diamine)	26125-61-1	<10
2, 5- dimethyl- 2, 5- di- (tert- butylperoxy)hexane	78-63-7	<10
silica amorphous	7631-86-9	<10
calcium carbonate	471-34-1	<5
trimethylolpropane trimethacrylate	3290-92-4	<5
paraffinic distillate, heavy, solvent- refined (mild)	64741-88-4	<1
zinc stearate	557-05-1	<1
octadecylamine	124-30-1	<1
stearic acid	57-11-4	<1

Section 4 - FIRST AID MEASURES

SWALLOWED

- Immediately give a glass of water.
- First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

EYE

- If this product comes in contact with eyes:
 - Wash out immediately with water.
 - If irritation continues, seek medical attention.
 - Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

continued...

DENTSPLY GUTTA CORE

Chemwatch Independent Material Safety Data Sheet

Issue Date: 23-Apr-2013

9317SP

CHEMWATCH 35-4235

Version No:3.1.1.1

CD 2013/1 Page 2 of 10

Section 4 - FIRST AID MEASURES

SKIN

- If skin contact occurs:
 - Immediately remove all contaminated clothing, including footwear.
 - Flush skin and hair with running water (and soap if available).
 - Seek medical attention in event of irritation.

INHALED

- If fumes, aerosols or combustion products are inhaled remove from contaminated area.
- Other measures are usually unnecessary.

NOTES TO PHYSICIAN

- Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- Water spray or fog.
- Alcohol stable foam.
- Dry chemical powder.
- Carbon dioxide.

FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear full body protective clothing with breathing apparatus.
- Prevent, by any means available, spillage from entering drains or water course.
- Consider evacuation (or protect in place).

FIRE/EXPLOSION HAZARD

- The material is not readily combustible under normal conditions.
- However, it will break down under fire conditions and the organic component may burn.
- Not considered to be a significant fire risk.
- Heat may cause expansion or decomposition with violent rupture of containers.

Combustion products include: carbon monoxide (CO), carbon dioxide (CO₂), ammonia, hydrogen cyanide, nitrogen oxides (NO_x), metal oxides, other pyrolysis products typical of burning organic material.

May emit corrosive fumes.

FIRE INCOMPATIBILITY

- Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

HAZCHEM

None

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS

- Clean up all spills immediately.
- Avoid contact with skin and eyes.
Place in suitable containers for disposal.

MAJOR SPILLS

- Clean up all spills immediately.
- Secure load if safe to do so.
- Bundle/collect recoverable product.
- Collect remaining material in containers with covers for disposal.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- Limit all unnecessary personal contact.
- Wear protective clothing when risk of exposure occurs.

continued...

DENTSPLY GUTTA CORE

Chemwatch Independent Material Safety Data Sheet

Issue Date: 23-Apr-2013

9317SP

CHEMWATCH 35-4235

Version No:3.1.1.1

CD 2013/1 Page 3 of 10

Section 7 - HANDLING AND STORAGE

- Use in a well-ventilated area.
- When handling DO NOT eat, drink or smoke.

SUITABLE CONTAINER

- Packaging as recommended by manufacturer.

STORAGE INCOMPATIBILITY

- None known.

STORAGE REQUIREMENTS

- Store in original containers.
 - Keep containers securely sealed.
 - Store in a cool, dry, well-ventilated area.
 - Store away from incompatible materials and foodstuff containers.
- Control environmental maintaining a temperature of 16 to 30 degree Celcius.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material	TWA mg/m ³	STEL mg/m ³	Notes
Australia Exposure Standards	Dentsply Gutta Core (Zinc oxide (dust) (a))	10		
Australia Exposure Standards	Dentsply Gutta Core (Zinc oxide (fume))	5	10	
Australia Exposure Standards	Dentsply Gutta Core (Titanium dioxide (a))	10		(see Chapter 14)
Australia Exposure Standards	Dentsply Gutta Core (Silica - Amorphous Fumed silica (respirable dust))	2		(see Chapter 14)
Australia Exposure Standards	Dentsply Gutta Core (Oil mist, refined mineral)	5		

The following materials had no OELs on our records

- isoprene homopolymer: CAS:9003- 31- 0 CAS:104389- 31- 3 CAS:104389- 32- 4 CAS:26125- 61- 1
- poly(terephthaloylchloride- p- phenylene diamine): CAS:78- 63- 7
- 2, 5- dimethyl- 2, 5- di- (tert- butylperoxy)hexane: CAS:3290- 92- 4
- trimethylolpropane trimethacrylate: CAS:124- 30- 1 CAS:90640- 32- 7
- octadecylamine:

MATERIAL DATA

2,5-DIMETHYL-2,5-DI-(TERT-BUTYLPEROXY)HEXANE:

OCTADECYLAMINE:

STEARIC ACID:

TITANIUM DIOXIDE:

TUNGSTEN:

ZINC OXIDE:

ZINC STEARATE:

- Sensory irritants are chemicals that produce temporary and undesirable side-effects on the eyes, nose or throat.

Historically occupational exposure standards for these irritants have been based on observation of workers' responses to various airborne concentrations.

OCTADECYLAMINE:

POLY(TEREPHTHALOYLCHLORIDE-P-PHENYLENE DIAMINE):

STEARIC ACID:

ZINC OXIDE:

ZINC STEARATE:

■ It is the goal of the ACGIH (and other Agencies) to recommend TLVs (or their equivalent) for all substances for which there is evidence of health effects at airborne concentrations encountered in the workplace.

At this time no TLV has been established, even though this material may produce adverse health effects (as evidenced in animal experiments or clinical experience).

NOTE: The ACGIH occupational exposure standard for Particles Not Otherwise Specified (P.N.O.S) does NOT apply.

POLY(TEREPHTHALOYLCHLORIDE-P-PHENYLENE DIAMINE):

SILICA AMORPHOUS:

continued...

DENTSPLY GUTTA CORE

Chemwatch Independent Material Safety Data Sheet

Issue Date: 23-Apr-2013

9317SP

CHEMWATCH 35-4235

Version No:3.1.1.1

CD 2013/1 Page 4 of 10

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

ZINC OXIDE:

■ The concentration of dust, for application of respirable dust limits, is to be determined from the fraction that penetrates a separator whose size collection efficiency is described by a cumulative log-normal function with a median aerodynamic diameter of 4.0 µm (+-) 0.3 µm and with a geometric standard deviation of 1.5 µm (+-) 0.1 µm, i.e..generally less than 5 µm.

DENTSPLY GUTTA CORE:

SILICA AMORPHOUS:

■ For amorphous crystalline silica (precipitated silicic acid):

Amorphous crystalline silica shows little potential for producing adverse effects on the lung and exposure standards should reflect a particulate of low intrinsic toxicity. Mixtures of amorphous silicas/ diatomaceous earth and crystalline silica should be monitored as if they comprise only the crystalline forms.

The dusts from precipitated silica and silica gel produce little adverse effect on pulmonary functions and are not known to produce significant disease or toxic effect.

IARC has classified silica, amorphous as Group 3: NOT classifiable as to its carcinogenicity to humans.

DENTSPLY GUTTA CORE:

TITANIUM DIOXIDE:

■ Animals exposed by inhalation to 10 mg/m³ titanium dioxide show no significant fibrosis, possibly reversible tissue reaction. The architecture of lung air spaces remains intact.

DENTSPLY GUTTA CORE:

ZINC OXIDE:

■ for zinc oxide:

Zinc oxide intoxication (intoxication zincale) is characterised by general depression, shivering, headache, thirst, colic and diarrhoea.

Exposure to the fume may produce metal fume fever characterised by chills, muscular pain, nausea and vomiting.

STEARIC ACID:

ZINC STEARATE:

■ The stearates have a low order of acute and chronic toxicity. Intratracheal administration of relatively large doses in rats produce varying degrees of pulmonary damage.

CALCIUM CARBONATE:

DENTSPLY GUTTA CORE:

■ For calcium carbonate:

The TLV-TWA is thought to be protective against the significant risk of physical irritation associated with exposure.

DENTSPLY GUTTA CORE:

TRIMETHYLOLPROPANE TRIMETHACRYLATE:

■ CEL TWA: 1 mg/m³ [compare WEEL-TWA* for multifunctional acrylates (MFAs)]

(CEL = Chemwatch Exposure Limit)

Exposure to MFAs has been reported to cause contact dermatitis in humans and serious eye injury in laboratory animals.

Exposure to some MFA-resin containing aerosols has also been reported to cause dermatitis.

TUNGSTEN:

■ Insoluble tungsten compounds include all those for which water solubility is listed as insoluble or less than 0.01 gm/100 cc water. The recommended TLV-TWA and STEL reflects the reported physiologic activity of insoluble compounds of tungsten.

ISOPRENE HOMOPOLYMER:

■ for isoprene:

Russian OEL STEL: 40 mg/m³

CEL TWA: 50 ppm, 139 mg/m³ (compare WEEL TWA)

(CEL = Chemwatch Exposure Limit)

Saturated vapour concentration: 724000 ppm at 25 C.

Odour Threshold Value: 0.005 ppm

The workplace environmental exposure level (WEEL) established by the AIHA is thought to be protective against respiratory tract irritation and against potential subacute and subchronic effects reported in several studies.

POLY(TEREPHTHALOYLCHLORIDE-P-PHENYLENE DIAMINE):

■ MAK IIIA2: Substances shown to be clearly carcinogenic only in animal studies but under conditions indicative of carcinogenic potential in the workplace.

MAK values, and categories and groups are those recommended within the Federal Republic of Germany.

OES TWA: 0.5 fibres/ml (respirable fibres)

CEL TWA: 2 fibres/cm³

TRIMETHYLOLPROPANE TRIMETHACRYLATE:

■ For 4-methoxyphenol (MEHQ)

MEHQ has caused ocular toxicity in animals and skin depigmentation in rodents and workers. The recommendation for the TLV-TWA arises from documented eye and skin toxicities and by analogy with hydroquinone.

No exposure limits set by NOHSC or ACGIH.

REL TWA: 25ppm [Manufacturer R]

continued...

DENTSPLY GUTTA CORE

Chemwatch Independent Material Safety Data Sheet

Issue Date: 23-Apr-2013

9317SP

CHEMWATCH 35-4235

Version No:3.1.1.1

CD 2013/1 Page 5 of 10

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

PARAFFINIC DISTILLATE, HEAVY, SOLVENT-REFINED (MILD):

■ Toxicity and Irritation data for petroleum-based mineral oils are related to chemical components and vary as does the composition and source of the original crude.

A small but definite risk of occupational skin cancer occurs in workers exposed to persistent skin contamination by oils over a period of years.

Petroleum oils which are solvent refined/extracted or severely hydrotreated, contain very low concentrations of both for mineral oils, excluding metal working fluids, poorly and mildly refined:

A2; Suspected Human Carcinogen (ACGIH)

A2 is used primarily when there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals with relevance to humans.

WARNING: This substance is classified by the NOHSC as Category 2 Probable Human Carcinogen.

PERSONAL PROTECTION

RESPIRATOR

• None under normal operating condition.

* Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

EYE

■ No special equipment for minor exposure i.e. when handling small quantities.

• OTHERWISE:

• Safety glasses with side shields.

• Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent].

HANDS/FEET

■ No special equipment needed when handling small quantities.

OTHERWISE: Wear general protective gloves, e.g. light weight rubber gloves.

OTHER

■ No special equipment needed when handling small quantities.

OTHERWISE:

• Overalls.

• Barrier cream.

• Eyewash unit.

ENGINEERING CONTROLS

■ Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Pink coating on gray carrier solid.

PHYSICAL PROPERTIES

State	Manufactured	Molecular Weight	Not Applicable
Melting Range (°C)	50	Viscosity	Not Available
Boiling Range (°C)	Not Applicable	Solubility in water (g/L)	Not Available
Flash Point (°C)	Not Applicable	pH (1% solution)	Not Available
Decomposition Temp (°C)	300	pH (as supplied)	Not Available
Autoignition Temp (°C)	Not Available	Vapour Pressure (kPa)	Not Available
Upper Explosive Limit (%)	Not Available	Specific Gravity (water=1)	2
Lower Explosive Limit (%)	Not Available	Relative Vapour Density (air=1)	Not Available
Volatile Component (%vol)	Not Available	Evaporation Rate	Not Available

continued...

DENTSPLY GUTTA CORE

Chemwatch Independent Material Safety Data Sheet
Issue Date: 23-Apr-2013
9317SP

CHEMWATCH 35-4235
Version No:3.1.1.1
CD 2013/1 Page 6 of 10

Section 10 - STABILITY AND REACTIVITY

CONDITIONS CONTRIBUTING TO INSTABILITY

- Product is considered stable and hazardous polymerisation will not occur.

For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

- if swallowed, mildly discomforting.

EYE

- Not normally a hazard due to physical form of product.

This vulcanized compound presents minimal risk since it precludes the possibility of air borne dust of the active ingredients.

SKIN

- Not normally a hazard due to physical form of product.

This vulcanized compound presents minimal risk since it precludes the possibility of air borne dust of the active ingredients.

INHALED

- Not normally a hazard due to physical form of product.

This vulcanized compound presents minimal risk since it precludes the possibility of air borne dust of the active ingredients.

CHRONIC HEALTH EFFECTS

- Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.

TOXICITY AND IRRITATION

- Not available. Refer to individual constituents.

CARCINOGEN

titanium dioxide	International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs	Group	2B	Possibly carcinogenic to humans
silica amorphous	International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs	Group	3	Not classifiable as to its carcinogenicity to humans

SKIN

titanium dioxide	GESAMP/EHS Composite List - GESAMP Hazard Profiles	D1: skin irritation/corrosion	1	
silica amorphous	GESAMP/EHS Composite List - GESAMP Hazard Profiles	D1: skin irritation/corrosion	(0)	
calcium carbonate	GESAMP/EHS Composite List - GESAMP Hazard Profiles	D1: skin irritation/corrosion	0	
stearic acid	GESAMP/EHS Composite List - GESAMP Hazard Profiles	D1: skin irritation/corrosion	(1)	

Section 12 - ECOLOGICAL INFORMATION

No data

Ecotoxicity
Ingredient

Persistence:
Water/Soil

Persistence: Air

Bioaccumulation

Mobility

continued...

DENTSPLY GUTTA CORE

Chemwatch Independent Material Safety Data Sheet

Issue Date: 23-Apr-2013

9317SP

CHEMWATCH 35-4235

Version No:3.1.1.1

CD 2013/1 Page 7 of 10

Section 12 - ECOLOGICAL INFORMATION

zinc oxide	No Data Available	No Data Available	LOW	No Data Available
tungsten	No Data Available	No Data Available	No Data Available	No Data Available
isoprene homopolymer	HIGH	No Data Available	LOW	HIGH
titanium dioxide	HIGH	No Data Available	LOW	HIGH
poly(terephthaloylchloride- p-phenylene diamine)	No Data Available	No Data Available	No Data Available	No Data Available
2, 5- dimethyl- 2, 5- di- (tert-butylperoxy)hexane	HIGH	No Data Available	MED	LOW
silica amorphous	HIGH	No Data Available	LOW	HIGH
calcium carbonate	No Data Available	No Data Available	No Data Available	No Data Available
trimethylolpropane trimethacrylate	HIGH	No Data Available	LOW	MED
paraffinic distillate, heavy, solvent- refined (mild)	No Data Available	No Data Available	No Data Available	No Data Available
zinc stearate	LOW	No Data Available	LOW	LOW
octadecylamine	LOW	No Data Available	LOW	LOW
stearic acid	LOW	No Data Available	LOW	LOW

Section 13 - DISPOSAL CONSIDERATIONS

- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Authority for disposal.
- Bury or incinerate residue at an approved site.
- Recycle containers if possible, or dispose of in an authorised landfill.

Section 14 - TRANSPORTATION INFORMATION

HAZCHEM:

None (ADG7)

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: ADG7, IATA, IMDG

Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE None

REGULATIONS

Regulations for ingredients

zinc oxide (CAS: 1314-13-2,175449-32-8) is found on the following regulatory lists;

"Australia Exposure Standards", "Australia Hazardous Substances", "Australia Inventory of Chemical Substances (AICS)", "Australia National Pollutant Inventory", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4", "Australia Therapeutic Goods Administration (TGA) Substances that may be used as active ingredients in Listed medicines", "Australia Therapeutic Goods Administration (TGA) Sunscreening agents permitted as active ingredients in listed products", "FisherTransport Information", "International Fragrance Association (IFRA) Survey: Transparency List", "OECD List of High Production Volume (HPV) Chemicals", "Sigma-AldrichTransport Information"

tungsten (CAS: 7440-33-7) is found on the following regulatory lists;

"Australia Exposure Standards", "Australia Inventory of Chemical Substances (AICS)", "FisherTransport Information", "OECD List of High Production Volume (HPV) Chemicals", "Sigma-AldrichTransport Information"

isoprene homopolymer (CAS: 9003-31-0,104389-31-3,104389-32-4) is found on the following regulatory lists;

"Australia Inventory of Chemical Substances (AICS)", "Australia National Pollutant Inventory", "FisherTransport Information", "International Air Transport Association (IATA) Dangerous Goods Regulations", "International Air Transport Association (IATA) Dangerous Goods Regulations - Prohibited List Passenger and Cargo Aircraft", "International Fragrance Association (IFRA) Survey:

continued...

DENTSPLY GUTTA CORE

Chemwatch Independent Material Safety Data Sheet

Issue Date: 23-Apr-2013

9317SP

CHEMWATCH 35-4235

Version No:3.1.1.1

CD 2013/1 Page 8 of 10

Section 15 - REGULATORY INFORMATION

Transparency List", "Sigma-AldrichTransport Information"

titanium dioxide (CAS: 13463-67-7,1317-70-0,1317-80-2,12188-41-9,1309-63-3,100292-32-8,101239-53-6,116788-85-3,12000-59-8,12701-76-7,12767-65-6,12789-63-8,1344-29-2,185323-71-1,185828-91-5,188357-76-8,188357-79-1,195740-11-5,221548-98-7,224963-00-2,246178-32-5,252962-41-7,37230-92-5,37230-94-7,37230-95-8,37230-96-9,39320-58-6,39360-64-0,39379-02-7,416845-43-7,494848-07-6,494848-23-6,494851-77-3,494851-98-8,55068-84-3,55068-85-4,552316-51-5,62338-64-1,767341-00-4,97929-50-5,98084-96-9) is found on the following regulatory lists;

"Australia Australian Pesticides and Veterinary Medicines Authority (APVM) Record of approved active constituents", "Australia Exposure Standards", "Australia High Volume Industrial Chemical List (HVICL)", "Australia Inventory of Chemical Substances (AICS)", "Australia Therapeutic Goods Administration (TGA) Substances that may be used as active ingredients in Listed medicines", "Australia Therapeutic Goods Administration (TGA) Sunscreening agents permitted as active ingredients in listed products", "CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unless Otherwise Specified, in Accordance with GMP", "FisherTransport Information", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs", "International Fragrance Association (IFRA) Survey: Transparency List", "International Numbering System for Food Additives", "OECD List of High Production Volume (HPV) Chemicals", "Sigma-AldrichTransport Information"

poly(terephthaloylchloride-p-phenylene diamine) (CAS: 26125-61-1) is found on the following regulatory lists;

"Australia - Australian Capital Territory - Environment Protection Regulation: Ambient environmental standards (Domestic water supply - inorganic chemicals)", "Australia - Australian Capital Territory - Environment Protection Regulation: Ambient environmental standards (STOCK - inorganic chemicals)", "Australia - Australian Capital Territory - Environment Protection Regulation: Pollutants entering waterways taken to cause environmental harm - Domestic water supply quality", "Australia - Australian Capital Territory - Environment Protection Regulation: Pollutants entering waterways taken to cause environmental harm (IRRIG)", "Australia - Australian Capital Territory - Environment Protection Regulation: Pollutants entering waterways taken to cause environmental harm (STOCK)", "Australia Drinking Water Guideline Values For Physical and Chemical Characteristics", "Australia National Pollutant Inventory", "OSPAR National List of Candidates for Substitution - United Kingdom", "Sigma-AldrichTransport Information", "WHO Guidelines for Drinking-water Quality - Chemicals for which guideline values have not been established"

2,5-dimethyl-2,5-di-(tert-butylperoxy)hexane (CAS: 78-63-7) is found on the following regulatory lists;

"Acros Transport Information", "Australia - Victoria Occupational Health and Safety Regulations - Schedule 9: Materials at Major Hazard Facilities (And Their Threshold Quantity) Table 2", "Australia Dangerous Goods Code (ADG Code) - Goods Too Dangerous To Be Transported", "Australia Inventory of Chemical Substances (AICS)", "International Council of Chemical Associations (ICCA) - High Production Volume List", "OECD List of High Production Volume (HPV) Chemicals"

silica amorphous (CAS: 7631-86-9,112945-52-5,67762-90-7,68611-44-9,68909-20-6,112926-00-8,61790-53-2,60676-86-0,91053-39-3,69012-64-2) is found on the following regulatory lists;

"Acros Transport Information", "Australia - New South Wales Hazardous Substances Requiring Health Surveillance", "Australia - Queensland Work Health and Safety Regulation - Hazardous chemicals (other than lead) requiring health monitoring", "Australia - South Australia - Hazardous Substances Requiring Health Surveillance", "Australia - Tasmania Hazardous Substances Requiring Health Surveillance", "Australia - Victoria Occupational Health and Safety Regulations - Schedule 5 Hazardous Substances: Substances Prohibited for Specified Uses", "Australia - Western Australia Hazardous Substances Prohibited for Specified Uses or Methods of Handling", "Australia - Western Australia Hazardous Substances Requiring Health Surveillance", "Australia Australian Safety and Compensation Council (ASCC) Draft National Code of Practice for the Control of Workplace Hazardous Chemicals - Schedule 4 Hazardous chemicals Requiring Health Surveillance", "Australia Drinking Water Guideline Values For Physical and Chemical Characteristics", "Australia Exposure Standards", "Australia Hazardous Substances", "Australia High Volume Industrial Chemical List (HVICL)", "Australia Inventory of Chemical Substances (AICS)", "Australia National Pollutant Inventory", "Australia Occupational Health and Safety (Commonwealth Employment) (National Standards) Regulations 1994 - Hazardous Substances Requiring Health Surveillance", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix C", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix F (Part 3)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4", "Australia Therapeutic Goods Administration (TGA) Substances that may be used as active ingredients in Listed medicines", "Australia Work Health and Safety Regulations 2011 - Hazardous chemicals (other than lead) requiring health monitoring", "CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unless Otherwise Specified, in Accordance with GMP", "FisherTransport Information", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs", "International Council of Chemical Associations (ICCA) - High Production Volume List", "International Fragrance Association (IFRA) Survey: Transparency List", "International Numbering System for Food Additives", "OECD List of High Production Volume (HPV) Chemicals", "OSPAR National List of Candidates for Substitution - Norway", "Sigma-AldrichTransport Information"

calcium carbonate (CAS: 471-34-1,13397-26-7,15634-14-7,1317-65-3) is found on the following regulatory lists;

"Acros Transport Information", "Australia Drinking Water Guideline Values For Physical and Chemical Characteristics", "Australia Exposure Standards", "Australia High Volume Industrial Chemical List (HVICL)", "Australia Inventory of Chemical Substances (AICS)", "Australia Quarantine and Inspection Service List of chemical compounds that are accepted solely for use at establishments registered to prepare meat and meat products for the purpose of the Export Control Act 1982", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix C", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix F (Part 3)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6", "Australia Therapeutic Goods Administration (TGA) Substances that may be used as active ingredients in Listed medicines", "CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unless Otherwise Specified, in Accordance with GMP", "FisherTransport Information", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "International Council of Chemical Associations (ICCA) - High Production Volume List", "International Numbering System for Food Additives", "OECD List of High Production Volume (HPV) Chemicals", "Sigma-AldrichTransport Information"

trimethylolpropane trimethacrylate (CAS: 3290-92-4) is found on the following regulatory lists;

"Australia Inventory of Chemical Substances (AICS)", "International Council of Chemical Associations (ICCA) - High Production Volume List", "OECD List of High Production Volume (HPV) Chemicals"

paraffinic distillate, heavy, solvent-refined (mild) (CAS: 64741-88-4) is found on the following regulatory lists;

continued...

DENTSPLY GUTTA CORE

Chemwatch Independent Material Safety Data Sheet

Issue Date: 23-Apr-2013

9317SP

CHEMWATCH 35-4235

Version No:3.1.1.1

CD 2013/1 Page 9 of 10

Section 15 - REGULATORY INFORMATION

"Australia Exposure Standards", "Australia Hazardous Substances", "Australia High Volume Industrial Chemical List (HVICL)", "Australia Inventory of Chemical Substances (AICS)", "OECD List of High Production Volume (HPV) Chemicals", "OSPAR National List of Candidates for Substitution – Norway", "Sigma-Aldrich Transport Information"

zinc stearate (CAS: 557-05-1) is found on the following regulatory lists;

"Australia Exposure Standards", "Australia Inventory of Chemical Substances (AICS)", "Australia National Pollutant Inventory", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4", "Fisher Transport Information", "International Council of Chemical Associations (ICCA) - High Production Volume List", "OECD List of High Production Volume (HPV) Chemicals", "Sigma-Aldrich Transport Information"

octadecylamine (CAS: 124-30-1, 90640-32-7) is found on the following regulatory lists;

"Australia Inventory of Chemical Substances (AICS)", "Australia National Pollutant Inventory", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix F (Part 3)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5", "Fisher Transport Information", "International Council of Chemical Associations (ICCA) - High Production Volume List", "OECD List of High Production Volume (HPV) Chemicals", "OSPAR National List of Candidates for Substitution – Norway", "OSPAR National List of Candidates for Substitution – United Kingdom", "Sigma-Aldrich Transport Information"

stearic acid (CAS: 57-11-4) is found on the following regulatory lists;

"Australia Exposure Standards", "Australia Inventory of Chemical Substances (AICS)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5", "Fisher Transport Information", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO Provisional Categorization of Liquid Substances - List 1: Pure or technically pure products", "International Council of Chemical Associations (ICCA) - High Production Volume List", "International Fragrance Association (IFRA) Survey: Transparency List", "OECD List of High Production Volume (HPV) Chemicals", "Sigma-Aldrich Transport Information"

No data for Dentsply Gutta Core (CW: 35-4235)

Section 16 - OTHER INFORMATION

Denmark Advisory list for selfclassification of dangerous substances

Substance	CAS	Suggested codes
trimethylolpropane trimethacrylate	3290- 92- 4	N; R51/53
octadecylamine	124- 30- 1	Xn; R22 R43 Xi; R38 N; R50/53
stearic acid	57- 11- 4	T; R25 N; R50

INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name	CAS
zinc oxide	1314- 13- 2, 175449- 32- 8
isoprene	9003- 31- 0, 104389- 31- 3, 104389- 32- 4
homopolymer	
titanium dioxide	13463- 67- 7, 1317- 70- 0, 1317- 80- 2, 12188- 41- 9, 1309- 63- 3, 100292- 32- 8, 101239- 53- 6, 116788- 85- 3, 12000- 59- 8, 12701- 76- 7, 12767- 65- 6, 12789- 63- 8, 1344- 29- 2, 185323- 71- 1, 185828- 91- 5, 188357- 76- 8, 188357- 79- 1, 195740- 11- 5, 221548- 98- 7, 224963- 00- 2, 246178- 32- 5, 252962- 41- 7, 37230- 92- 5, 37230- 94- 7, 37230- 95- 8, 37230- 96- 9, 39320- 58- 6, 39360- 64- 0, 39379- 02- 7, 416845- 43- 7, 494848- 07- 6, 494848- 23- 6, 494851- 77- 3, 494851- 98- 8, 55068- 84- 3, 55068- 85- 4, 552316- 51- 5, 62338- 64- 1, 767341- 00- 4, 97929- 50- 5, 98084- 96- 9
silica amorphous	7631- 86- 9, 112945- 52- 5, 67762- 90- 7, 68611- 44- 9, 68909- 20- 6, 112926- 00- 8, 61790- 53- 2, 60676- 86- 0, 91053- 39- 3, 69012- 64- 2
calcium carbonate	471- 34- 1, 13397- 26- 7, 15634- 14- 7, 1317- 65- 3
octadecylamine	124- 30- 1, 90640- 32- 7

■ Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:

www.chemwatch.net/references.

■ The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

This document is copyright. Apart from any fair dealing for the purposes of private study, research, review or criticism, as permitted under the Copyright Act, no part may be reproduced by any process without written permission from CHEMWATCH. TEL (+61 3) 9572 4700.

Issue Date: 23-Apr-2013

continued...

DENTSPLY GUTTA CORE

Chemwatch Independent Material Safety Data Sheet

Issue Date: 23-Apr-2013

9317SP

CHEMWATCH 35-4235

Version No:3.1.1.1

CD 2013/1 Page 10 of 10

Section 16 - OTHER INFORMATION

Print Date: 24-Apr-2013

This is the end of the MSDS.