SAFETY DATA SHEETS

This SDS packet was issued with item:

071709351

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

071008502 071707587 071707595 071707603 071707611 071707629 071707637 071707645 071707652 071707660
071707678 071708189 071708197 071708221 071708239 071708247 071708254 071708262 071708270 071708288
071708296 071708304 071708312 071708320 071708338 071708346 071708353 071708361 071708379 071708387
071708395 071708403 071708411 071708429 071708437 071708445 071708452 071708460 071708478 071708486
071708494 071708502 071708510 071708528 071708536 071708908 071708916 071708924 071708932 071708940
071708957 071708965 071708973 071708981 071708999 071709005 071709013 071709021 071709153 071709161
071709179 071709187 071709195 071709203 071709211 071709229 071709237 071709245 071709252 071709260
071709278 071709286 071709294 071709302 071709310 071709328 071709336 071709344 071709369 071709377
071709518 071709526 071709534 071709542 071709559 071709567 071709575 071709583 071709591 071709609
071709617 071709625 071709633 071709641 071709658 071709666 071709674 071709682 071709690 071709708
071709716 071709724 071709732 071709740 071709757 071709765 071709773 071709781 071709799 071709807
071709815 071709823 071709831 071709849

Dentsply EsthetX HD

Dentsply (Australia)

Chemwatch Hazard Alert Code: **3**

Chemwatch: **22-5368**
Version No: **2.1.1.1**
Material Safety Data Sheet according to NOHSC and ADG requirements

Issue Date: **01/01/2013**
Print Date: **15/10/2014**
Initial Date: **Not Available**
S.Local.AUS.EN

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

Product name	Dentsply EsthetX HD
Chemical Name	Not Applicable
Synonyms	EsthetX HD, EsthetX HD High Definition Micro Matrix Restorative
Proper shipping name	Not Applicable
Chemical formula	Not Applicable
Other means of identification	Not Available
CAS number	Not Applicable

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

Relevant identified uses	Light curing composite/dental filling material

Details of the manufacturer/importer

Registered company name	Dentsply (Australia)
Address	11-21 Gilby Road Mount Waverley 3149 VIC Australia
Telephone	+61 3 9538 8240
Fax	+61 3 9538 8260
Website	www.dentsply.com.au
Email	Not Available

Emergency telephone number

Association / Organisation	Not Available
Emergency telephone numbers	1300 552 929 (Mon-Fri 9am-5pm)
Other emergency telephone numbers	1300 552 929 (Mon-Fri 9am-5pm)

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

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

CHEMWATCH HAZARD RATINGS

		Min	Max
Flammability	0		
Toxicity	2		
Body Contact	2		
Reactivity	1		
Chronic	3		

0 = Minimum
1 = Low
2 = Moderate
3 = High
4 = Extreme

Poisons Schedule	Not Applicable
Risk Phrases [1]	**R20/22** Harmful by inhalation and if swallowed. **R36/38** Irritating to eyes and skin. **R50/53** Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Continued...

	R43	May cause SENSITISATION by skin contact.
	R40(3)	Limited evidence of a carcinogenic effect.
	R61(1)	May cause harm to the unborn child.
	R33	Danger of cumulative effects.
	R62(3)	Possible risk of impaired fertility.
	R48/20 /21/22	Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
Legend:	*1. Classified by Chemwatch; 2. Classification drawn from HSIS ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI*	

Relevant risk statements are found in section 2

Indication(s) of danger	T, Xn, N

SAFETY ADVICE

S01	Keep locked up.
S07	Keep container tightly closed.
S09	Keep container in a well ventilated place.
S13	Keep away from food, drink and animal feeding stuffs.
S20	When using do not eat or drink.
S25	Avoid contact with eyes.
S26	In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.
S28	After contact with skin, wash immediately with plenty of water
S29	Do not empty into drains.
S35	This material and its container must be disposed of in a safe way.
S36	Wear suitable protective clothing.
S37	Wear suitable gloves.
S38	In case of insufficient ventilation, wear suitable respiratory equipment.
S39	Wear eye/face protection.
S40	To clean the floor and all objects contaminated by this material, use water and detergent.
S45	In case of accident or if you feel unwell IMMEDIATELY contact Doctor or Poisons Information Centre (show label if possible).
S46	If swallowed, seek medical advice immediately and show this container or label.
S51	Use only in well ventilated areas.
S53	Avoid exposure - obtain special instructions before use.
S56	Dispose of this material and its container at hazardous or special waste collection point.
S57	Use appropriate container to avoid environmental contamination.
S61	Avoid release to the environment. Refer to special instructions/Safety data sheets.
S64	If swallowed, rinse mouth with water (only if the person is conscious).

Other hazards

	May produce discomfort of the respiratory system*.
	Possible respiratory sensitizer*.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

Continued...

CAS No	%[weight]	Name
65997-17-3	<50	glass fibres loose - special purpose
65997-18-4	<30	frits chemicals, lead containing
109-16-0	<20	triethylene glycol dimethacrylate
Not Available	<10	urethane modified bis-GMA dimethacrylate
68611-44-9	<5	silica amorphous, fumed
7631-86-9	<5	silica amorphous

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye Contact	If this product comes in contact with the eyes: ▸ Wash out immediately with fresh running water. ▸ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. ▸ Seek medical attention without delay; if pain persists or recurs seek medical attention. ▸ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	▸ Gently brush or vacuum off adherent fibres. ▸ Wash affected areas thoroughly with water (and soap if available). ▸ Seek medical attention if irritation exists and persists.
Inhalation	▸ If fumes or combustion products are inhaled remove from contaminated area. ▸ Lay patient down. Keep warm and rested. ▸ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. ▸ Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. ▸ Transport to hospital, or doctor. ▸ If dust is inhaled, remove from contaminated area. ▸ Encourage patient to blow nose to ensure clear breathing passages. ▸ Ask patient to rinse mouth with water but to not drink water. ▸ Seek immediate medical attention.
Ingestion	▸ Immediately give a glass of water. ▸ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.
Mineral fibres are a mechanical irritant, and are not expected to produce any chronic health effects from acute exposures.
Treatment should be directed toward removing the source of irritation with symptomatic treatment as necessary.
Lung function should be monitored, periodically, in individuals chronically exposed to fibres in an occupational setting

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

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

Special hazards arising from the substrate or mixture

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

Advice for firefighters

Fire Fighting	▸ When silica dust is dispersed in air, firefighters should wear inhalation protection as hazardous substances from the fire may be adsorbed on the silica particles. ▸ When heated to extreme temperatures, (>1700 deg.C) amorphous silica can fuse. ▸ Alert Fire Brigade and tell them location and nature of hazard. ▸ May be violently or explosively reactive.
Fire/Explosion Hazard	Mineral fibres exhibit low thermal conductivity, low heat storage, and thermal shock resistance.In fire situations they withstand high temperatures without burning.Thermal decomposition is associated with polymeric binders and facings which may be present in the article.The packaging, facings and resin may smoulder, decompose or burn.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Continued...

Personal precautions, protective equipment and emergency procedures

Minor Spills	▸ Clean up all spills immediately. ▸ Avoid contact with skin and eyes. ▸ Wear impervious gloves and safety goggles. ▸ Trowel up/scrape up.
Major Spills	▸ Clear area of personnel and move upwind. ▸ Alert Fire Brigade and tell them location and nature of hazard. ▸ Wear breathing apparatus plus protective gloves. ▸ Prevent, by any means available, spillage from entering drains or water course.

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

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling	▸ Limit all unnecessary personal contact. ▸ Wear protective clothing when risk of exposure occurs. ▸ Use in a well-ventilated area. ▸ When handling **DO NOT** eat, drink or smoke.
Other information	▸ Store in original containers. ▸ Keep containers securely sealed. ▸ Store in a cool, dry, well-ventilated area. ▸ Store away from incompatible materials and foodstuff containers.

Conditions for safe storage, including any incompatibilities

Suitable container	▸ Polyethylene or polypropylene container. ▸ Packing as recommended by manufacturer. ▸ Check all containers are clearly labelled and free from leaks.
Storage incompatibility	▸ Avoid reaction with oxidising agents

PACKAGE MATERIAL INCOMPATIBILITIES

Not Available

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	silica amorphous	Silica - Amorphous Fumed silica (respirable dust) / Fumed silica (respirable dust)	2 mg/m3	Not Available	Not Available	Not Available

EMERGENCY LIMITS

Ingredient	TEEL-0	TEEL-1	TEEL-2	TEEL-3
Dentsply EsthetX HD	Not Available	Not Available	Not Available	Not Available

Ingredient	Original IDLH	Revised IDLH
glass fibres loose - special purpose	Not Available	Not Available
frits chemicals, lead containing	700 mg/m3	100 mg/m3
triethylene glycol dimethacrylate	Not Available	Not Available
urethane modified bis-GMA dimethacrylate	Not Available	Not Available
silica amorphous, fumed	N.E. mg/m3 / N.E. ppm	3,000 mg/m3
silica amorphous	N.E. mg/m3 / N.E. ppm	3,000 mg/m3

Exposure controls

Appropriate	▸ Provide good ventilation (either forced or natural)

Continued...

engineering controls	▸ Where possible, enclose sources of dust and provide dust extraction at the source. ▸ Restrict access to work areas involved in handling man-made mineral fibres and ensure that adequate training, in the handling of such materials, has been provided. ▸ Use operating procedures which limit the generation of dusts. ▸ When working with unbonded fibres, local exhaust ventilation is generally a requirement.
Personal protection	
Eye and face protection	▸ Safety glasses with side shields. ▸ Chemical goggles. ▸ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.
Skin protection	See Hand protection below
Hands/feet protection	**NOTE:** ▸ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. ▸ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed. Wear protective gloves, e.g. PVC.
Body protection	See Other protection below
Other protection	▸ Disposable coveralls or long sleeve, loose fitting protective clothing, e.g. overalls (launder clothing separately from other clothing). ▸ When working above head height, use head covering. ▸ Minimise dust generation by using sharp hand cutting tools if possible. ▸ Powered tools (e.g. saws etc.) should only be used if fitted with dust extraction and containment equipment.
Thermal hazards	Not Available

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:
"Forsberg Clothing Performance Index".
The effect(s) of the following substance(s) are taken into account in the ***computer-generated*** selection:
Dentsply EsthetX HD Not Available

Material	CPI

* CPI - Chemwatch Performance Index
A: Best Selection
B: Satisfactory; may degrade after 4 hours continuous immersion
C: Poor to Dangerous Choice for other than short term immersion
NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -
* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

Respiratory protection

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Various shades of viscous paste with a characteristic sweet acrylic odour; does not mix with water.

Physical state	Non Slump Paste	**Relative density (Water = 1)**	2.1
Odour	Not Available	**Partition coefficient n-octanol / water**	Not Available
Odour threshold	Not Available	**Auto-ignition temperature (°C)**	Not Available
pH (as supplied)	Not Applicable	**Decomposition temperature**	Not Available
Melting point / freezing point (°C)	Not Available	**Viscosity (cSt)**	Not Available
Initial boiling point and boiling range (°C)	Not Available	**Molecular weight (g/mol)**	Not Available

Continued...

Flash point (°C)	Not Available	**Taste**	Not Available
Evaporation rate	Not Available	**Explosive properties**	Not Available
Flammability	Not Available	**Oxidising properties**	Not Available
Upper Explosive Limit (%)	Not Applicable	**Surface Tension (dyn/cm or mN/m)**	Not Available
Lower Explosive Limit (%)	Not Applicable	**Volatile Component (%vol)**	Not Available
Vapour pressure (kPa)	Not Available	**Gas group**	Not Available
Solubility in water (g/L)	Immiscible	**pH as a solution(1%)**	Not Applicable
Vapour density (Air = 1)	Not Available	**VOC g/L**	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	▸ Unstable in the presence of incompatible materials. ▸ Product is considered stable. ▸ Hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled	Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual. Limited evidence or practical experience suggests that the material may produce irritation of the respiratory system, in a significant number of individuals, following inhalation. In contrast to most organs, the lung is able to respond to a chemical insult by first removing or neutralising the irritant and then repairing the damage. The repair process, which initially evolved to protect mammalian lungs from foreign matter and antigens, may however, produce further lung damage resulting in the impairment of gas exchange, the primary function of the lungs.
Ingestion	The material has **NOT** been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. The material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health).
Skin Contact	Evidence exists, or practical experience predicts, that the material either produces inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant inflammation when applied to the healthy intact skin of animals, for up to four hours, such inflammation being present twenty-four hours or more after the end of the exposure period. Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis.
Eye	Evidence exists, or practical experience predicts, that the material may cause eye irritation in a substantial number of individuals and/or may produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals. Repeated or prolonged eye contact may cause inflammation characterised by temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur.
Chronic	On the basis, primarily, of animal experiments, concern has been expressed that the material may produce carcinogenic or mutagenic effects; in respect of the available information, however, there presently exists inadequate data for making a satisfactory assessment. Practical experience shows that skin contact with the material is capable either of inducing a sensitisation reaction in a substantial number of individuals, and/or of producing a positive response in experimental animals. Harmful: danger of serious damage to health by prolonged exposure through inhalation. Serious damage (clear functional disturbance or morphological change which may have toxicological significance) is likely to be caused by repeated or prolonged exposure.

Continued...

Dentsply EsthetX HD	**TOXICITY**	**IRRITATION**
	Not Available	Not Available
glass fibres loose - special purpose	**TOXICITY**	**IRRITATION**
	Not Available	Not Available
frits chemicals, lead containing	**TOXICITY**	**IRRITATION**
	Not Available	Not Available
triethylene glycol dimethacrylate	**TOXICITY**	**IRRITATION**
	Oral (mouse) LD50: 10750 mg/kg	
	Oral (rat) LD50: 10837 mg/kg	
	Not Available	Not Available
silica amorphous, fumed	**TOXICITY**	**IRRITATION**
	Oral (rat) LD50: >5000 mg/kg	[Wacker]
	Not Available	Not Available
silica amorphous	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: >5000 mg/kg *	* [Grace]
	Inhalation (rat) LC50: >0.139 mg/l/14h *	Eye (rabbit): non-irritating *
	Oral (rat) LD50: 3160 mg/kg	Skin (rabbit): non-irritating *
	Not Available	Not Available

** Value obtained from manufacturer's msds*
unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances

GLASS FIBRES LOOSE - SPECIAL PURPOSE	The substance is classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to humans. For fibre glass wool: In October 2001, IARC classified fiber glass wool as Group 3, "not classifiable as to its carcinogenicity to humans." The 2001 decision was based on current human and animal research that shows no association between inhalation exposure to dust from fibre glass wool and the development of respiratory disease. This is a reversal of the IARC finding in 1987 of a Group 2B designation (possibly carcinogenic to humans) based on earlier studies in which animals were injected with large quantities of fiber glass. NTP and ACGIH have not yet reviewed the IARC reclassification or the most current fibre glass health research; at this time, both agencies continue to classify glass wool based on the earlier animal injection studies. MMMF are manufactured to definite fibre diameters and cannot split along their length rather they break across and form small particles not needles [FARIMA]. NOTE: Carcinogenic by RTECS criteria (rat inhalation studies). Equivocal carcinogen or neoplastic agent by RTECS criteria (rat implantation studies)
FRITS CHEMICALS, LEAD CONTAINING	No significant acute toxicological data identified in literature search.
SILICA AMORPHOUS	Reports indicate high/prolonged exposures to amorphous silicas induced lung fibrosis in experimental animals; in some experiments these effects were reversible. [PATTYS]
Dentsply EsthetX HD, TRIETHYLENE GLYCOL DIMETHACRYLATE	The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions.
SILICA AMORPHOUS, FUMED, SILICA AMORPHOUS	For silica amorphous: When experimental animals inhale synthetic amorphous silica (SAS) dust, it dissolves in the lung fluid and is rapidly eliminated. If swallowed, the vast majority of SAS is excreted in the faeces and there is little accumulation in the body. Following absorption across the gut, SAS is eliminated via urine without modification in animals and humans. SAS is not expected to be broken down (metabolised) in mammals.

Acute Toxicity	✔	**Carcinogenicity**	✔
Skin Irritation/Corrosion	✔	**Reproductivity**	✔

Continued...

Serious Eye Damage/Irritation	✔	**STOT - Single Exposure**	⊘
Respiratory or Skin sensitisation	✔	**STOT - Repeated Exposure**	✔
Mutagenicity	⊘	**Aspiration Hazard**	⊘

Legend: ✔ *– Data required to make classification available*
✘ *– Data available but does not fill the criteria for classification*
⊘ *– Data Not Available to make classification*

CMR STATUS

Not Applicable

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

DO NOT discharge into sewer or waterways.
Prevent, by any means available, spillage from entering drains or water courses.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
triethylene glycol dimethacrylate	HIGH	HIGH
silica amorphous	HIGH	HIGH

Bioaccumulative potential

Ingredient	Bioaccumulation
triethylene glycol dimethacrylate	LOW (BCF = 5.592)
silica amorphous	LOW (BCF = 3.162)

Mobility in soil

Ingredient	Mobility
triethylene glycol dimethacrylate	LOW (KOC = 10)
silica amorphous	LOW (KOC = 23.74)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / Packaging disposal	▸ Containers may still present a chemical hazard/ danger when empty. ▸ Return to supplier for reuse/ recycling if possible. Otherwise: ▸ If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. ▸ Where possible retain label warnings and MSDS and observe all notices pertaining to the product.

SECTION 14 TRANSPORT INFORMATION

Labels Required

Marine Pollutant	
HAZCHEM	Not Applicable

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

SECTION 15 REGULATORY INFORMATION

Continued...

Safety, health and environmental regulations / legislation specific for the substance or mixture

glass fibres loose - special purpose(65997-17-3) is found on the following regulatory lists	"Australia Inventory of Chemical Substances (AICS)","Australia Hazardous Substances Information System - Consolidated Lists"
frits chemicals, lead containing(65997-18-4) is found on the following regulatory lists	"Australia Inventory of Chemical Substances (AICS)","Australia Hazardous Substances Information System - Consolidated Lists"
triethylene glycol dimethacrylate(109-16-0) is found on the following regulatory lists	"Australia Inventory of Chemical Substances (AICS)"
silica amorphous, fumed(68611-44-9) is found on the following regulatory lists	"Australia Inventory of Chemical Substances (AICS)","Australia Hazardous Substances Information System - Consolidated Lists"
silica amorphous(7631-86-9) is found on the following regulatory lists	"Australia Exposure Standards","International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs","Australia Inventory of Chemical Substances (AICS)","Australia Hazardous Substances Information System - Consolidated Lists"

SECTION 16 OTHER INFORMATION

Other information

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. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

end of SDS

MATERIAL SAFETY DATA SHEET

SECTION I – Product/Company Information

1.1 Product Trade Name:	**Esthet•X® Improved** Micro Matrix Restorative Compules® and Easy•Twist Syringe
1.2 Part (Item) Number:	**630200 – 630499 All Package Configurations**
1.3 Division Name:	DENTSPLY Caulk
1.4 Address:	38 West Clarke Avenue
City State Zip:	Milford DE 19963 – 0359
Internet Address:	**http://www.caulk.com**
1.5 Emergency Telephone Number:	(800) 424-9300 (Chemtrec)
1.6 Telephone Number for Information:	(302) 422-4511 (8:00 AM – 4:30 PM Eastern Time)
1.7 Date Prepared:	6/25/03

SECTION II – Hazardous Ingredients/Identity Information

Hazardous Components	OSHA PEL	ACGIH TLV	CAS #	Percent
Titanium Dioxide	10 mg/m^3	10 mg/m^3	13463-67-7	< than1%
Silica Amorphous	3 mg/m^3	3 mg/m^3	67762-90-7	< than 3 %
Barium boron fluoroalumino silicate glass	N. E.	N. E.	65997-18-4	> than 70 %
Urethane modified Bis-GMA dimethacrylate	N. E.	N. E.	126646-17-1	< than 25 %

SECTION III – Physical/Chemical Characteristics

3.1 Boiling point:	N. A.	**3.6 Specific Gravity:**	2.2 g/cm^2
3.2 Vapor pressure:	N. A.	**3.7 Melting Point:**	N. E.
3.3 Vapor density:	N. A.	**3.8 Evaporation rate:**	N. A.
3.4 Solubility in water:	Not Soluble		

3.5 Appearance and odor: Various shades of viscous paste with sweet acrylic ester odor.

SECTION IV - Fire and Explosion Hazard Data

4.1 Flash point (method used):	N. A.
4.2 Flammability (explosive limits):	**LEL: N. A.** **UEL: N. A.**
4.3 Extinguishing media:	Water spray, carbon dioxide, foam, or dry chemical.
4.4 Special fire fighting procedures:	Firefighters should wear full protective clothing including a self contain breathing apparatus.
4.5 Unusual fire and explosion hazards:	During a fire, irritating gas may be present from the decomposition of the dimethacrylate resins.

SECTION V – Reactivity Data

5.1 Stability:	**Unstable**: **Stable**: X
5.2 Conditions to avoid (stability):	Bright visible lights on paste, elevated temperatures above 50°C (122°F).
5.3 Incompatibility (materials to avoid):	Strong oxidizing materials.
5.4 Hazardous decomposition or byproducts:	Irritating gases, CO and CO_2
5.5 Hazardous polymerization:	**May occur**: **Will not occur**: X
5.6 Conditions to avoid (polymerization):	Elevated temperatures and oxidizing materials. Product is sensitive to visible light and will harden if exposed to visible light. Heat greater than 50°C.