

DENTSPLY DYRACT EXTRA UNIVERSAL COMPOMER RESTORATIVE

Chemwatch Material Safety Data Sheet

Issue Date: 17-Jan-2007

C9317TC

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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

DENTSPLY DYRACT EXTRA UNIVERSAL COMPOMER RESTORATIVE

SYNONYMS

PRODUCT USE

Dental restorations.

SUPPLIER

Company: Dentsply

Address:

11- 21 Gilby Road

Mount Waverley

VIC, 3149

AUS

Telephone: +61 3 9538 8240

Emergency Tel: 0413 830 239

Fax: +61 3 9538 8260

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

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

POISONS SCHEDULE

S6

RISK

Irritating to eyes, respiratory system and skin.

SAFETY

Do not breathe dust.

Avoid contact with skin.

Wear eye/face protection.

To clean the floor and all objects contaminated by this material, use water and detergent.

In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.

If swallowed, IMMEDIATELY contact Doctor or Poisons Information Centre. (show this container or label).

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
polymerizable dimethacrylate resin		<35
2, 2- bis[4- (2- methacryloxy)ethoxy]phenyl]propane	24448-20-2	<35
trimethylolpropane trimethacrylate	3290-92-4	<10
triethylene glycol dimethacrylate	109-16-0	<10
strontium fluoride	7783-48-4	<10

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 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

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Section 4 - FIRST AID MEASURES

the upper and lower lids.

SKIN

If skin contact occurs:

- Immediately remove all contaminated clothing, including footwear
- Flush skin and hair with running water (and soap if available).

INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.

NOTES TO PHYSICIAN

Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.

FIRE/EXPLOSION HAZARD

- Non combustible.
 - Not considered a significant fire risk, however containers may burn., carbon dioxide (CO₂), other pyrolysis products typical of burning organic material.
- May emit poisonous fumes.

FIRE INCOMPATIBILITY

Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc.

HAZCHEM: None

Personal Protective Equipment

Gas tight chemical resistant suit.
Limit exposure duration to 1 BA set 30 mins.

Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

MINOR SPILLS

- Clean up all spills immediately.
- Avoid breathing vapours/ aerosols/ or dusts and avoid contact with skin and eyes.

MAJOR SPILLS

DO NOT touch the spill material.

Minor hazard.

- Clear area of personnel.
- Alert Fire Brigade and tell them location and nature of hazard.

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

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.

SUITABLE CONTAINER

- Polyethylene or polypropylene container.
- Packing as recommended by manufacturer.

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Section 7 - HANDLING AND STORAGE

STORAGE INCOMPATIBILITY

Exposure to light, free radical initiators, iron, rust and strong bases, and storage beyond expiration date, may initiate polymerisation.

Contamination with polymerisation catalysts - peroxides, persulfates, oxidising agents - also strong acids, strong alkalies, will cause polymerisation with exotherm - generation of heat.

Polymerisation of large quantities may be violent - even explosive.

STORAGE REQUIREMENTS

Rotate all stock to prevent ageing. Use on FIFO (First In-First Out) basis.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material	TWA ppm	TWA mg/m ³	STEL ppm	STEL mg/m ³	Peak ppm	Peak mg/m ³	TWA F/CC
Australia Exposure Standards	strontium fluoride (Fluorides (as F))		2.5					

The following materials had no OELs on our records

- 2,2-bis[4-(2-methacryloxy)ethoxy]phenyl]propane: CAS:24448-20-2
- trimethylolpropane trimethacrylate: CAS:3290-92-4
- triethylene glycol dimethacrylate: CAS:109-16-0

PERSONAL PROTECTION

RESPIRATOR

Type A-P Filter of sufficient capacity

EYE

- Safety glasses with side shields.
- Chemical goggles.

HANDS/FEET

Wear chemical protective gloves, eg. PVC.

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.

OTHER

- Overalls.
- P.V.C. apron.

ENGINEERING CONTROLS

General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in special circumstances.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Coloured, viscous paste with a sweet odour; does not mix with water.

PHYSICAL PROPERTIES

Does not mix with water.

Sinks in water.

Molecular Weight: Not Applicable
Melting Range (°C): Not Available
Solubility in water (g/L): Immiscible
pH (1% solution): Not Available
Volatile Component (%vol): Not Available
Relative Vapour Density (air=1): Not Available
Lower Explosive Limit (%): Not Available
Autoignition Temp (°C): Not Available
State: Free-flowing Paste

Boiling Range (°C): Not Available
Specific Gravity (water=1): 2.1
pH (as supplied): Not Available
Vapour Pressure (kPa): Not Available
Evaporation Rate: Not Available
Flash Point (°C): Not Applicable
Upper Explosive Limit (%): Not Available
Decomposition Temp (°C): Not Available
Viscosity: Not Available

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Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

- Stable under controlled storage conditions provided material contains adequate stabiliser / polymerisation inhibitor.
- Bulk storages may have special storage requirements.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

Irritating to eyes, respiratory system and skin.

CHRONIC HEALTH EFFECTS

TOXICITY AND IRRITATION

Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound.

2,2-BIS[4-(2-METHACRYLOXY)ETHOXY]PHENYL]PROPANE:

No significant acute toxicological data identified in literature search.

Based on the available oncogenicity data and without a better understanding of the carcinogenic mechanism the Health and Environmental Review Division (HERD), Office of Toxic Substances (OTS), of the US EPA previously concluded that all chemicals that contain the acrylate or methacrylate moiety ($\text{CH}_2=\text{CHCOO}$ or $\text{CH}_2=\text{C}(\text{CH}_3)\text{COO}$) should be considered to be a carcinogenic hazard unless shown otherwise by adequate testing.

This position has now been revised and acrylates and methacrylates are no longer de facto carcinogens.

TRIMETHYLOLPROPANE TRIMETHACRYLATE:

TOXICITY

IRRITATION

Oral (rat) LD50: >5000 mg/kg *

Skin (rabbit): 500 mg - Mild

(SD +/- 2591 mg/kg)

** [American Industrial Hygiene Association]

Dermal (rabbit) LD50: > 3000mg/kg *

* [Manufacturer]

Based on the available oncogenicity data and without a better understanding of the carcinogenic mechanism the Health and Environmental Review Division (HERD), Office of Toxic Substances (OTS), of the US EPA previously concluded that all chemicals that contain the acrylate or methacrylate moiety ($\text{CH}_2=\text{CHCOO}$ or $\text{CH}_2=\text{C}(\text{CH}_3)\text{COO}$) should be considered to be a carcinogenic hazard unless shown otherwise by adequate testing.

This position has now been revised and acrylates and methacrylates are no longer de facto carcinogens.

TRIETHYLENE GLYCOL DIMETHACRYLATE:

TOXICITY

IRRITATION

Oral (rat) LD50: 10837 mg/kg

Nil Reported

Oral (mouse) LD50: 10750 mg/kg

STRONTIUM FLUORIDE:

TOXICITY

IRRITATION

Oral (rat) LD50: 10600 mg/kg

Nil Reported

Intraperitoneal (mouse) LD50: 4400 mg/kg

MATERIAL	CARCINOGEN	REPROTOXIN	SENSITISER	SKIN
triethylene glycol dimethacrylate			AFRHC	AFRHC

SENSITISER

AFRHC: Australia Final Report on Hazard Classification of Common Skin Sensitisers: triethylene glycol dimethacrylate

SKIN

AFRHC: Australia Final Report on Hazard Classification of Common Skin Sensitisers: triethylene glycol dimethacrylate

Section 12 - ECOLOGICAL INFORMATION

No data

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Section 13 - DISPOSAL CONSIDERATIONS

- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Authority for disposal.

Section 14 - TRANSPORTATION INFORMATION

HAZCHEM: None

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS:UN

Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE: S6

REGULATIONS

2,2-bis[4-(2-methacryloxy)ethoxy]phenyl]propane (CAS: 24448-20-2) is found on the following regulatory lists;

Australia Inventory of Chemical Substances (AICS)
European Customs Inventory of Chemical Substances - ECICS (Danish)
European Customs Inventory of Chemical Substances - ECICS (Dutch)
European Customs Inventory of Chemical Substances - ECICS (French)
European Customs Inventory of Chemical Substances - ECICS (German)
European Customs Inventory of Chemical Substances - ECICS (Italian)
European Customs Inventory of Chemical Substances - ECICS (Spanish)
European Customs Inventory of Chemical Substances - ECICS (Swedish)
European Customs Inventory of Chemical Substances (English)
European Inventory of Existing Commercial Substances - EINECS

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

Australia Inventory of Chemical Substances (AICS)
EU Directive 2002/72/EC Plastic materials and articles intended to come into contact with foodstuffs - Annex II Section A:

List of authorised monomers and other starting substances

European Customs Inventory of Chemical Substances - ECICS (Danish)
European Customs Inventory of Chemical Substances - ECICS (Dutch)
European Customs Inventory of Chemical Substances - ECICS (French)
European Customs Inventory of Chemical Substances - ECICS (German)
European Customs Inventory of Chemical Substances - ECICS (Italian)
European Customs Inventory of Chemical Substances - ECICS (Spanish)
European Customs Inventory of Chemical Substances - ECICS (Swedish)
European Customs Inventory of Chemical Substances (English)
European Inventory of Existing Commercial Substances - EINECS
International Council of Chemical Associations (ICCA) - High Production Volume List
OECD Representative List of High Production Volume (HPV) Chemicals

triethylene glycol dimethacrylate (CAS: 109-16-0) is found on the following regulatory lists;

Australia Final Report on Hazard Classification of Common Skin Sensitisers
Australia Inventory of Chemical Substances (AICS)
European Customs Inventory of Chemical Substances - ECICS (Danish)
European Customs Inventory of Chemical Substances - ECICS (Dutch)
European Customs Inventory of Chemical Substances - ECICS (French)
European Customs Inventory of Chemical Substances - ECICS (German)
European Customs Inventory of Chemical Substances - ECICS (Italian)
European Customs Inventory of Chemical Substances - ECICS (Spanish)
European Customs Inventory of Chemical Substances - ECICS (Swedish)
European Customs Inventory of Chemical Substances (English)
European Inventory of Existing Commercial Substances - EINECS
International Council of Chemical Associations (ICCA) - High Production Volume List
OECD Representative List of High Production Volume (HPV) Chemicals

strontium fluoride (CAS: 7783-48-4) is found on the following regulatory lists;

ASEAN Cosmetic Directive (ANNEX V) Excluded Substances
Australia Dangerous Goods Code Draft 7th Edition - List of Common Pesticides with Corresponding UN Numbers
Australia Exposure Standards
Australia Inventory of Chemical Substances (AICS)
Australia National Pollutant Inventory
Australia Poisons Schedule
Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 2

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Section 15 - REGULATORY INFORMATION

Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 6
EU Directive 96/61/EC concerning integrated pollution prevention and control, Annex III
European Customs Inventory of Chemical Substances - ECICS (Danish)
European Customs Inventory of Chemical Substances - ECICS (Dutch)
European Customs Inventory of Chemical Substances - ECICS (French)
European Customs Inventory of Chemical Substances - ECICS (German)
European Customs Inventory of Chemical Substances - ECICS (Italian)
European Customs Inventory of Chemical Substances - ECICS (Spanish)
European Customs Inventory of Chemical Substances - ECICS (Swedish)
European Customs Inventory of Chemical Substances (English)
European Inventory of Existing Commercial Substances - EINECS
European Union (EU) Restrictions on the Marketing and Use of Certain Dangerous Substances and Preparations

Section 16 - OTHER INFORMATION

Denmark Advisory list for selfclassification of dangerous substances

Substance	CAS	Suggested codes
2, 2- bis[4- (2- methacryloxy)ethoxy)phenyl]propane	24448- 20- 2	N; R50/53
triethylene glycol dimethacrylate	109- 16- 0	R43 N; R51/53

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