

Acrylic Night Guard. (Hard)

Material Safety Data Sheet

SR Ivocap Plus Monomer



Date of issue / Reference 01.10.2007 lise / Version 4
Replaces version of 07.06.2005 hot
Date of printing 01.10.2007 Sheet No. 1084

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Company Ivoclar Vivadent AG, Bendererstrasse 2, FL - 9494 Schaan
Principality of Liechtenstein

1 Commercial product name and supplier

1.1 Commercial product name / Designation **SR Ivocap Plus Monomer**



HMIS	
H	1
F	4
R	3
C	

1.2 Application / Use Denture base material

1.3 Producer Ivoclar Vivadent AG, Bendererstrasse 2, 9494 Schaan
Principality of Liechtenstein (FL)

1.4 Supplier Ivoclar Vivadent, Inc.
175 Pineview Drive, Amherst NY 14228, USA
2785 Skymark Ave., Unit 1 Mississauga, ON L4W4Y3, Canada
MSDS prepared by Andejeet Gulati. Tel. No. 716 691-0010

1.5 24 Hour Emergency Assistance Emergency-Call USA- Infotrac: 1-800-535-5053
Emergency-Call Canada - Canutec: 1-613-996-6666

General MSDS Assistance US: 1-800-533-6825
Canada: 1-800-263-8182

2 Composition

2.1 Chemical characterization Mixture of Methyl methacrylate stab., Dimethacrylate and Co-polymer

2.2 Hazardous components

CAS No. 80-62-6 88 - 90 % Methylmethacrylate
Xi: Irritant. F: Highly flammable. R11: Highly flammable. R43: May cause sensitisation by skin contact. R37/38: Irritating to respiratory system and skin.

CAS No. 97-90-5 5 - 6 % Dimethacrylate
Xi: Irritant. R37: Irritating to respiratory system. R43: May cause sensitisation by skin contact.

2.3 Further information

3 Hazards identification Highly flammable. Do not inhale vapours. Irritating to eyes, respiratory system and skin. May cause sensitization by skin contact.

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4 First aid measures

- 4.1 Eye contact Flush eyes with plenty of water (10-15 min.). Call a physician.
- 4.2 Skin contact Wash thoroughly with water.
- 4.3 Ingestion After ingestion call a physician immediately and show packaging or label. Do not induce vomiting.
- 4.4 Inhalation Remove to fresh air. If respiratory irritation is experienced, call a physician.
- 4.5 Further information Remove contaminated clothing.

5 Fire-fighting measures

- 5.1 Suitable extinguishing media Water fog, carbon dioxide, foam, dry chemicals.
- 5.2 Extinguishing media to avoid Do not use direct water stream.
- 5.3 Flash point 50 °F Test method: DIN 51755
- 5.4 Ignition temperature 806 °F DIN 51794
- 5.5 Explosion limits Lower: 2.1 Vol%
Upper: 12.5 Vol%
- 5.6 Further information Cool containers in the vicinity of the blaze using a water spray. Highly flammable liquid. Keep possible ignition sources away from vapours.

6 Accidental release measures

Clean up with absorbent material such as sawdust, diatomaceous earth or universal absorbents.
Dispose of according to local and national regulations.
Do not allow to flow off into the drains or waters.

7 Handling and storage

- 7.1 Handling Only adequately trained personnel should handle this product. Keep out of reach of children.
- 7.2 Industrial hygiene Usual hygienic measures for dental practice. When using, do not eat, drink or smoke.
- 7.3 Storage Keep containers tightly closed. Store in dry well ventilated area away from sources of ignition and heat. Store at 12-28 °C / 54-82 °F.
- 7.4 Place of storage
- 7.5 Fire- and explosion-protection Take precautions to avoid accumulation of static charge.

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8 Exposure controls / Personal protection

- | | | |
|-------|-------------------------------|--|
| 8.1 | Technical measures | Control airborne concentration below the exposure guideline. |
| 8.2 | Control of threshold limits | MAK (Maximale Arbeitsplatzkonzentration, Germany) is 50 ppm.
ACGIH (American Conference of Governmental Industrial Hygienists, USA) Threshold Limit Value (TLV) is 100 ppm (Ceiling). |
| 8.3 | Personal protective equipment | |
| 8.3.1 | Respiratory protection | In poorly ventilated areas, use air-purifying respiratory protection apparatus (type A). |
| 8.3.2 | Hand protection | Solvent resistant gloves. |
| 8.3.3 | Eye protection | Safety goggles. |
| 8.3.4 | Other | Eye wash fountain should be located in immediate work area. |

9 Physical and chemical properties

- | | | | |
|-----|--------------------------|--------------------------------|--------------|
| 9.1 | Appearance | clear liquid | |
| 9.2 | Colour | colourless | |
| 9.3 | Odour | characteristic | |
| 9.4 | Change of physical state | | Test method: |
| | Melting point | -55 °F | |
| | Boiling point | 217 °F | |
| 9.5 | Density | 0.943 g/cm ³ (20°C) | |
| 9.6 | Vapour pressure | | |
| | | 40 mbar (20°C) | |
| 9.7 | Viscosity | 0.6 mPa·s (20°C) | |
| 9.8 | Solubility | | |
| | Solubility in water | 1.6 g/l | |
| 9.9 | pH | | |
| | | not determined | |

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9.10 Further information None.

10 Stability and reactivity

- 10.1 Thermal decomposition None, if used in accordance to instructions.
- 10.2 Hazardous decomposition products None under normal conditions of storage and use.
- 10.3 Hazardous reactions Polymerisation with heat build-up may occur. In the presence of radical initiators (e.g. peroxides).
- 10.4 Further information The product is highly flammable. Avoid ignition sources such as flames or spark producing equipment.

11 Toxicological information

- 11.1 Acute toxicity Oral LD50 for rats: 7'900 mg/kg
LC50/Rat: 3'750 ppm
- 11.2 Subacute / Chronic toxicity Prolonged or frequently repeated skin contact may cause allergic skin reactions in some individuals.
- 11.3 Further information Excessive exposure may cause eye and respiratory irritation.

12 Ecological information

German Wassergefährdungs Klasse (WGK): I
The product must not enter effluent, ground water, surface water or the soil.

13 Disposal considerations

Take to a special waste incineration plant, in line with local regulations.

14 Transport information

- 14.1 Transport at land
- | | | | |
|----------------------|------|---------------|---|
| ADR | 3 | RID | 3 |
| UN Number | 1247 | Kemler Number | 339 |
| Packing Group | | | II |
| Proper shipping name | | | Methyl methacrylate monomer, stabilized |
- 14.2 Transport at sea
- | | | | |
|----------------------|----------|------|---|
| ADNR | 3 | IMDG | 31-02 |
| UN Number | 1247 | | |
| EMS | F-E, S-D | MFAG | 330 |
| Packing Group | | | II |
| Proper shipping name | | | Methylmethacrylat Monomer, stabilisiert |

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14.3	Air transport	ICAO / IATA-DGR	Class 3
		UN Number	1247
		Proper shipping name	Methyl methacrylate monomer, stabilized
		Subsidiary Risk	---
		Labels	Flamm. Liquid
		Packing Group	II
	Passenger airplane	Packing Instructions	305
		max.	5 L
	Cargo Airplane	Packing Instructions	307
		max.	60 L
14.4	Further information	Sample shipment not allowed by mail.	

15 Regulatory information

The product is a medical device according to the EC-directive 93/42/EEC.

This product is classified as a medical device under US and Canadian regulations and has been reviewed by the US Food and Drug Administration and Health Canada.

This product requires classification according to the criteria of the "Gefahrstoffverordnung".

15.1 National regulations

15.2 NFPA Storage

15.3 Further information

None.

16 Other information

Version: 4
Changes: 1.5

The above mentioned data correspond to our present state of knowledge and experience. The safety data sheet serves as description of the products in regard to necessary safety measures. The indications do not have the meaning of guarantees on properties.

This safety data sheet has been generated with the safety database 'ChemManager',
© ASSIST Applied Software Solutions in Science and Technology AG, Weiherweg 3, CH-4104 Oberwil, Switzerland

91/155/EEC

Dynasty Acrylic Powder**Material Safety Data Sheet****Section I****Garreco, Inc.**

Emergency Telephone Number: CHEMTRAC 800-421-9300

Manufacturer

P. O. Box 1258

Telephone Number for Information: 501-362-6261

Heber Springs, AR 72543

Date Prepared: 10/15/07

Section II - Hazardous Ingredients/Identity Information

Hazardous Components

OSHA PEL ACGIH TLV Other Limits Recommended

Dialkyl Phthalate (CAS# 84-66-2)

5 mg/m³ 5 mg/m³

Titanium Dioxide (CAS# 13453-87-7)

15 mg/m³ 10 mg/m³

Mineral Pigments (CAS# 57453-37-5)

15 mg/m³ 10 mg/m³**Section III - Physical/Chemical Characteristics**

Boiling Point: N/A

Specific Gravity (H₂O=1): 1.25

Vapor Pressure (mm Hg): N/A

Melting Point: N/A

Vapor Density (AIR=1): N/A

Evaporation Rate (Butyl Acetate =1): N/A

Solubility in Water: Insoluble

Appearance and Odor: Fine, pink powder. Faint odor in bulk.

Section IV - Fire and Explosion Hazard Data

Flash Point: 304°C

Flammable Limits

LEL: N/A

UEL: N/A

Extinguishing Media: Water, carbon dioxide, dry chemical.

Unusual Fire and Explosion Hazards: Polymer dust is combustible. The explosive limits of the polymer particles suspended in the air are approximately those of coal dust.

Special Fire Fighting Procedures: Avoid extinguishing methods which may generate dust clouds. Water stream can disperse dust in the air, producing a fire hazard and possible explosion hazard.

Section V - Reactivity Data

Stability: Stable

Conditions to Avoid: Heating above 300°C.

Incompatibility: Strong oxidizing agents.

Hazardous Decomposition or By-products: Acrylate and methacrylate monomers and oxides of carbon.

Hazardous Polymerization: Will Not Occur

Conditions to Avoid: N/A

Section VI - Health Hazard Data

Route(s) of Entry:

Inhalation? N/A

Skin? N/A

Ingestion? N/A

Health Hazards: Acute or Chronic: N/A

Cardiogenicity: NTP? N/A

IARC Monographs? N/A OSHA Regulated? N/A

Signs and Symptoms of Exposure: N/A

Medical Conditions Generally Aggravated by Exposure: Avoid inhalation of dust. Keep dust out of eyes to prevent possible irritation.

Emergency and First Aid Procedures: Inhalation: Remove to fresh air. Get medical help if discomfort persists. Eye: Flush with water for 15 minutes, including under the eyelids. Skin: Wash with soap and water.

Section VII - Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled: Sweep up to avoid slipping hazards. Keep airborne particulate at a minimum when cleaning up spills.

Waste Disposal Method: May be disposed of in a landfill or incinerated. Follow Federal, State, and Local regulations.

Precautions to Be Taken in Handling and Storing: Store in a cool, dry place. Keep container closed to prevent water absorption and contamination.

Section VIII - Control Measures

Respiratory Protection: nuisance dust type if needed

Ventilation: Local Exhaust: Recommended

Special: NAIF

Mechanical (General): NAIF

Other: NAIF

Protective Gloves: If hot plastic is handled

Eye Protection: Safety glasses

Other Protective Clothing or Equipment: N/A

Work/Hygiene Practices: N/A

Axcen Self Cure Liquid Monomer**Material Safety Data Sheet****Section I****Garreco, Inc.**

Emergency Telephone Number: CHEMTRAC 800-424-9300

Manufacturers:

P. O. Box 1258

Telephone Number for Information: 501-352-8261

Heber Springs, AR 72543

Date Prepared: 10/15/07

Section II - Hazardous Ingredients/Identity Information

Hazardous Components	OSHA PEL	ACGIH TLV	Other Limits Recommended
Methyl Methacrylate (CAS# 80-62-6)	100 ppm	100 ppm	
Substituted Toluidine (CAS# 99-97-8)	NE	NE	
Benzophenone (CAS# 131-57-7)	NE	NE	
Hydroquinone (CAS# 123-31-9)	2 mg/m ³	2 mg/m ³	

Section III - Physical/Chemical Characteristics

Boiling Point: 101°C, 214°F Specific Gravity (H₂O=1): 0.84
 Vapor Pressure (mm Hg.): 29 mm at 20°C, 68°F Melting Point: N/A
 Vapor Density (AIR=1): 3.6 @ 50°F, 10°C Evaporation Rate (Butyl Acetate =1): 3.0
 Solubility in Water: 1.6g/100g @ 20°C, 68°F Appearance and Odor: Clear, pale liquid, with an acrid fruity odor.

Section IV - Fire and Explosion Hazard Data

Flash Point: 10°C, 51°F Flammable Limits LEL: 2.12 UEL: 12.5

Extinguishing Media: Chemical foam, carbon dioxide, dry chemical.

Unusual Fire and Explosion Hazards: Vapors may travel to source of ignition and flash back. Heat can cause polymerization with rapid release of energy which may rupture container explosively.

Special Fire Fighting Procedures: Wear self contained breathing apparatus & full protective gear. EXPLOSION HAZARD-Fight fire from protected location. Use water spray to cool containers.

Section V - Reactivity Data

Stability: Unstable Conditions to Avoid: Heat and ignition sources, aging and contamination.

Incompatibility: Oxidizing agents, reducing agents, and UV light. Material has strong solvent properties.

Hazardous Decomposition or By-products: Oxides of carbon when burned.

Hazardous Polymerization: May Occur

Conditions to Avoid: Temperatures above 70°F, 21°C, oxidizing or reducing agents, peroxides, acids, alkalies and amines.

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? Yes Skin? Yes Ingestion? Yes

Health Hazards: Acute or Chronic: N/A

Carcinogenicity: NTP? Hydroquinone IARC Monographs? No OSHA Regulated? No

Signs and Symptoms of Exposure: Headaches, nausea, staggering gait, confusion, drowsiness and unconsciousness.

Medical Conditions Generally Aggravated by Exposure: NAIF

Emergency and First Aid Procedures: Inhalation: Remove to fresh air. If breathing has stopped give oxygen. Eye: Flush with water including under eyelids. Skin: Wash thoroughly with soap and water. Ingestion: Do not induce vomiting. Rinse mouth out with water.

Section VII - Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled: Evacuate area. Eliminate sources of ignition. Use self-contained breathing apparatus and protective clothing. Dike and absorb with inert material. Transfer to proper containers for disposal, use non-sparking tools. Contaminated monomer may be unstable, add inhibitor to prevent polymerization. Keep spills and cleaning runoff out of sewers and open bodies of water.

Waste Disposal Method: When discarded it is listed as a hazardous waste by EPA under RCRA U-182 with the reportable quantity (RQ) of 1000 lbs. Incinerate liquid and diking material after addition of excess inhibitor, in accordance with Federal, State, and Local regulations.

Precautions to Be Taken in Handling and Storing: Observe precautions found on the label. Store in cool, dry place away from heat, sparks, flame, and direct sunlight. Close container after each use. Ground all metal containers when transferring. Check inhibitor levels every 3 months.

Other Precautions: Wash face and hands thoroughly with soap and water after handling and before eating, drinking, or smoking.

Section VIII - Control Measures

Respiratory Protection: Use self-contained breathing apparatus when needed.

Ventilation Local Exhaust: Recommended

Special: NAIF

Mechanical (General): NAIF

Other: NAIF

Protective Gloves: Impervious gloves recommended

Eye Protection: Safety glasses or chemical splash goggles

Other Protective Clothing or Equipment: Protective creams for clean up only.

Work/Hygiene Practices: N/A