SAFETY DATA SHEETS

This SDS packet was issued with item:

076208532

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

076208516

The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).

076208524 076208540 076208557 076208565 076208573 076208581 076208599 076208607 076208615 076208623

Page 1 of 4

Revision: 5

1. Substance / Preparation and Company Name

Product Name: riva light cure (powder)

Recommended use: Powder for the making of dental restorative cement by dental professionals, when

mixed with riva light cure liquid.

Manufacturer / Supplier

SDI Limited SDI Inc.

3-13 Brunsdon Street, Bayswater 729 N.Route 83, Suite 315 Victoria, 3153, Australia Bensenville 60106 IL, USA

<u>Telephone</u>: <u>Telephone</u>:

+61 3 8727 7111 (Business hours) 630 238 8300 (Business hours)

Southern Dental Industries Ltd

Block 8, St Johns Court

Swords Road

SDI Brasil Indústria e Comércio Ltda
Rua Dr. Virgílio de Carvalho Pinto, 612
Pinheiros, São Paulo, 05415-020

Santry, Dublin 9, Ireland Brasil

<u>Telephone</u>: <u>Telephone</u>:

+353 1 886 9577 (Business Hours) +55 11 3092 7100 (Business Hours)

Emergency contact number: +61 3 8727 7111

2. Composition / Information on Ingredients

<u>Composition</u>: <u>CAS No.</u> <u>Wt %</u> Fluoroaluminosilicate glass powder 95-100

3. Hazard Identification

Xi - IRRITANT. Powder is an irritant. Avoid creating and inhaling dust.

Risk Phrases: **36** Irritating to eyes.

37 Irritating to respiratory system.

38 Irritating to skin.

Safety Phrases: **22** Do not breathe dust.

24/25 Avoid contact with skin and eyes.

In case of contact with eyes, rinse immediately with plenty of water and

seek medical advice.

After contact with skin, wash immediately with water and soap.

4. First Aid Measures

Eye (contact): Flush opened eye with running water for 15 minutes. Seek medical attention.

Skin (contact): Wash skin with plenty of water. If irritation occurs seek medical attention.

Inhalation: Remove to fresh air. Seek medical attention if irritation develops or if feeling

unwell.

Ingestion: Drink plenty of water. Seek medical attention if discomfort continues.

Date / Revised: 20.02.2013 Revision: 5

Page 2 of 4

5. Fire Fighting Measures

Suitable Extinguishing Media: None required.

Unusual Fire and Explosion Hazards: None.

Special Protective Equipment: No special protective equipment required.

6. Accidental Release Measures

Personal Precautions: Avoid contact with eyes, skin or clothing.

Environmental Precautions: Clear up spillages. Transfer to a container for disposal.

Method for Cleaning Spills: Wash the spillage area clean with water.

7. Handling and storage

Handling

Store sealed containers away from heat and light.

Storage

Storage by the end user (Dental Clinic) is recommended to be at temperatures between 4° - 20° C (39° - 68° F) and should be kept away from direct sunlight.

Distribution

During distribution, to our customers, this product can be transported in non-refrigerated conditions between 15° to 25° C. This product can also withstand temperatures up to 40° C for short periods (2 to 3 days) and intermittent peaks up to 50° C.

8. Exposure Controls / Personal Protection

Respiratory Protection: Face mask.

Hand Protection: Safety / rubber gloves.

Eye Protection: Safety glasses, goggles or face shield.

General Safety and Hygiene Measures: None

9. Physical and Chemical Properties

Appearance: Fine white powder

Odour: None

Boiling Point: Not applicable

Melting Point: $>750^{\circ}$ C Specific Gravity: 2.8 g / cm^{3}

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Revision: 5

9. Physical and Chemical Properties (Cont'd)

Flash Point: Not applicable

Flammable: Not applicable
Autoflammability: Not applicable

Explosive Properties: Not known
Oxidising Properties: Not known

Vapour Pressure (@ 20°C): None
Vapour Density: None
Solubility: Insoluble

10. Stability and Reactivity

Stability: Stable under normal conditions.

Conditions to Avoid: None known

Materials to Avoid: None known

Hazardous Decomposition Products: None known

Hazardous Reactivity (Polymerization): None known

11. Toxicological Information

Acute Toxicity: Contact with skin and eyes may cause irritation.

Eye (contact): May cause irritation due to foreign body reaction.

Skin (contact): Possible skin irritant.

Inhalation: Possible respiratory irritant.

Ingestion: Irritant not likely in small amounts.

12. Ecological Information

Self-Assessment: Not readily biodegradable. Slightly hazardous for water.

13. Disposal Considerations

Dispose in accordance with local official regulations.

14. Transport Information

This product is not considered to be a dangerous good within the meaning of transportation regulations.

Page 4 of 4

Revision: 5

15. Regulatory Information

This product is regulated by:

TGA Medical Devices Directive 93/42/EEC FDA National regulations

16. Other Information

Preparation of MSDS:

Prepared by: SDI Limited Phone Number: 3-13 Brunsdon Street, Bayswater +61 3 8727 7111

3-13 Brunsdon Street, Bayswater Victoria, 3153, Australia

The information contained in the Material Safety Data Sheet is based on data considered to be accurate, however, no warranty is expressed or implied regarding the accuracy of the data or the results to be obtained from the use thereof.

Department issuing MSDS: Research and Development

Contact: Operations Director

Page 1 of 4

Revision: 5

1. Substance / Preparation and Company Name

Product Name: riva light cure powder/liquid Kit

Recommended use: Powder for the making of dental restorative cement by dental professionals, when

mixed with riva light cure liquid.

Manufacturer / Supplier

SDI Limited SDI Inc.

3-13 Brunsdon Street, Bayswater 729 N.Route 83, Suite 315 Victoria, 3153, Australia Bensenville 60106 IL, USA

<u>Telephone</u>: <u>Telephone</u>:

+61 3 8727 7111 (Business hours) 630 238 8300 (Business hours)

Southern Dental Industries Ltd

Block 8, St Johns Court

Swords Road

SDI Brasil Indústria e Comércio Ltda
Rua Dr. Virgílio de Carvalho Pinto, 612
Pinheiros, São Paulo, 05415-020

Santry, Dublin 9, Ireland Brasil

<u>Telephone</u>: <u>Telephone</u>:

+353 1 886 9577 (Business Hours) +55 11 3092 7100 (Business Hours)

Emergency contact number: +61 3 8727 7111

2. Composition / Information on Ingredients

<u>Composition</u>: <u>CAS No.</u> <u>Wt %</u> Fluoroaluminosilicate glass powder 95-100

3. Hazard Identification

Xi - IRRITANT. Powder is an irritant. Avoid creating and inhaling dust.

Risk Phrases: **36** Irritating to eyes.

37 Irritating to respiratory system.

38 Irritating to skin.

Safety Phrases: **22** Do not breathe dust.

24/25 Avoid contact with skin and eyes.

In case of contact with eyes, rinse immediately with plenty of water and

seek medical advice.

After contact with skin, wash immediately with water and soap.

4. First Aid Measures

Eye (contact): Flush opened eye with running water for 15 minutes. Seek medical attention.

Skin (contact): Wash skin with plenty of water. If irritation occurs seek medical attention.

Inhalation: Remove to fresh air. Seek medical attention if irritation develops or if feeling

unwell.

Ingestion: Drink plenty of water. Seek medical attention if discomfort continues.

Date / Revised: 20.02.2013 Revision: 5

Page 2 of 4

5. Fire Fighting Measures

Suitable Extinguishing Media: None required.

Unusual Fire and Explosion Hazards: None.

Special Protective Equipment: No special protective equipment required.

6. Accidental Release Measures

Personal Precautions: Avoid contact with eyes, skin or clothing.

Environmental Precautions: Clear up spillages. Transfer to a container for disposal.

Method for Cleaning Spills: Wash the spillage area clean with water.

7. Handling and storage

Handling

Store sealed containers away from heat and light.

Storage

Storage by the end user (Dental Clinic) is recommended to be at temperatures between 4° - 20° C (39° - 68° F) and should be kept away from direct sunlight.

Distribution

During distribution, to our customers, this product can be transported in non-refrigerated conditions between 15° to 25° C. This product can also withstand temperatures up to 40° C for short periods (2 to 3 days) and intermittent peaks up to 50° C.

8. Exposure Controls / Personal Protection

Respiratory Protection: Face mask.

Hand Protection: Safety / rubber gloves.

Eye Protection: Safety glasses, goggles or face shield.

General Safety and Hygiene Measures: None

9. Physical and Chemical Properties

Appearance: Fine white powder

Odour: None

Boiling Point: Not applicable

Melting Point: $>750^{\circ}$ C Specific Gravity: 2.8 g / cm^{3}

Page 3 of 4

Revision: 5

9. Physical and Chemical Properties (Cont'd)

Flash Point: Not applicable

Flammable: Not applicable
Autoflammability: Not applicable

Explosive Properties: Not known
Oxidising Properties: Not known

Vapour Pressure (@ 20°C): None
Vapour Density: None
Solubility: Insoluble

10. Stability and Reactivity

Stability: Stable under normal conditions.

Conditions to Avoid: None known

Materials to Avoid: None known

Hazardous Decomposition Products: None known

Hazardous Reactivity (Polymerization): None known

11. Toxicological Information

Acute Toxicity: Contact with skin and eyes may cause irritation.

Eye (contact): May cause irritation due to foreign body reaction.

Skin (contact): Possible skin irritant.

Inhalation: Possible respiratory irritant.

Ingestion: Irritant not likely in small amounts.

12. Ecological Information

Self-Assessment: Not readily biodegradable. Slightly hazardous for water.

13. Disposal Considerations

Dispose in accordance with local official regulations.

14. Transport Information

This product is not considered to be a dangerous good within the meaning of transportation regulations.

Page 4 of 4

Revision: 5

15. Regulatory Information

This product is regulated by:

TGA Medical Devices Directive 93/42/EEC FDA National regulations

16. Other Information

Preparation of MSDS:

Prepared by: SDI Limited Phone Number: 3-13 Brunsdon Street, Bayswater +61 3 8727 7111

3-13 Brunsdon Street, Bayswater Victoria, 3153, Australia

The information contained in the Material Safety Data Sheet is based on data considered to be accurate, however, no warranty is expressed or implied regarding the accuracy of the data or the results to be obtained from the use thereof.

Department issuing MSDS: Research and Development

Contact: Operations Director

Product: RIVA LIGHT CURE (LIQUID)

Revision: 7 Date / Revised: 20.02.2013

Page 1 of 4

Substance / Preparation and Company Name

Product Name: riva light cure (liquid)

Recommended use: liquid for the making of light-cured dental restorative cement, when mixed with

riva light cure powder.

Manufacturer / Supplier

SDI Limited SDI Inc.

3-13 Brunsdon Street, Bayswater 729 N.Route 83, Suite 315 Victoria, 3153, Australia Bensenville 60106 IL, USA

Telephone: Telephone:

+61 3 8727 7111 (Business hours) 630 238 8300 (Business hours)

Southern Dental Industries Ltd SDI Brasil Indústria e Comércio Ltda Block 8, St Johns Court Rua Dr. Virgílio de Carvalho Pinto, 612 **Swords Road** Pinheiros, São Paulo, 05415-020

Santry, Dublin 9, Ireland Brasil

Telephone: **Telephone**:

+353 1 886 9577 (Business Hours) +55 11 3092 7100 (Business Hours)

Emergency contact number: +61 3 8727 7111

2. **Composition / Information on Ingredients**

Composition:	CAS No.	<u>Wt. %</u>	
Polyacrylic Acid Tartaric Acid 2-Hydroxyethyl Methacrylate Dimethacrylate Cross-linker Acidic Monomer	9003-01-4 87-69-4 868-77-9	15-25 1-5 20-30 10-25 10-20	

Hazard Identification

Xi - IRRITANT. Product is an irritant. Avoid contact with skin, eyes, and respiratory system.

Risk Phrases: 36 Irritating to eyes.

> 37 Irritating to respiratory system.

38 Irritating to skin.

43 May cause sensitisation by skin contact.

Safety Phrases: 24/25 Avoid contact with skin and eyes.

> 26 In case of contact with eyes, rinse immediately with plenty of water and

seek medical advice.

After contact with skin, wash immediately with water and soap. 28

Obtained by Global Safety Management, Inc. www.globalsafetynet.com (Tel: 1-813-435-5161)

Product: RIVA LIGHT CURE (LIQUID)

Revision: 7 Date / Revised: 20.02.2013

Page 2 of 4

First Aid Measures

Eye (contact): Flush opened eye with running water for 15 minutes. Seek medical attention.

Skin (contact): Immediately remove contaminated clothing. Wash skin with plenty of water. If

irritation occurs seek medical attention.

Remove to fresh air. Seek medical attention if irritation develops or if feeling Inhalation:

unwell.

Ingestion: Immediately drink plenty of water. Do NOT induce vomiting. Seek medical

attention.

5. **Fire Fighting Measures**

Suitable Extinguishing Media: None required.

Unusual Fire and Explosion Hazards: None.

Special Protective Equipment: No special protective equipment required.

6.

Accidental Release Measures

Personal Precautions: Do not get into eyes, on skin or clothing.

Environmental Precautions: Prevent product from entering drains, surface water or ground water.

Method for Cleaning Spills: Contain with absorbent material (e.g. sand, diatomaceous earth) and

dispose of in accordance with regulations.

7. Handling and storage

<u>Handling</u>

Store sealed containers away from heat and light.

Storage by the end user (Dental Clinic) is recommended to be at temperatures between 4° - 20°C (39° -68°F) and should be kept away from direct sunlight.

Distribution

During distribution, to our customers, this product can be transported in non-refrigerated conditions between 15° to 25° C. This product can also withstand temperatures up to 40° C for short periods (2 to 3 days) and intermittent peaks up to 50° C.

8. **Exposure Controls / Personal Protection**

None required under normal conditions of use. Respiratory Protection:

Hand Protection: Latex or rubber gloves.

Eye Protection: Safety glasses or goggles

General Safety and Hygiene Measures: None

SDI

Product: RIVA LIGHT CURE (LIQUID)

Date / Revised: 20.02.2013 Revision: 7

Page 3 of 4

9. Physical and Chemical Properties

Appearance: Slightly yellow liquid

Odour: Slightly characteristic odour

Boiling Point: Approx. 100°C (212°F)

Melting Point:

Specific Gravity:

Flash Point:

Not applicable

Not applicable

Not applicable

Not flammable

Autoflammability:

Not applicable

Explosive Properties: Does not present an explosion hazard

Oxidising Properties: Not applicable
Vapour Pressure (@ 20°C): Approx. 23 hPa

Vapour Density: <1.0
Solubility: Miscible

10. Stability and Reactivity

Stability: Stable under normal conditions.

Conditions to Avoid: Avoid excessive heat

Materials to Avoid: None

Hazardous Decomposition Products: None when used as directed

Hazardous Reactivity (Polymerization): No hazardous reactions known

11. Toxicological Information

Acute Toxicity: Contact with skin, respiratory system and eyes causes irritation.

Eye (contact): Irritating to eyes.
Skin (contact): Skin irritant.
Inhalation (powder) Irritating.

Ingestion: Irritating and may be harmful.

12. Ecological Information

Self-Assessment: Not readily biodegradable. Avoid large quantities entering drains, surface water

or ground water.

MATERIAL SAFETY DATA SHEET [according to GHS & NOHSC:2011(2003)]

Page 4 of 4

Revision: 7

13. Disposal Considerations

Dispose in accordance with local official regulations.

14. Transport Information

This product is not considered to be a dangerous good within the meaning of transportation regulations.

15. Regulatory Information

This product is regulated by:

TGA

Medical Devices Directive 93/42/EEC

FDA

National regulations

16. Other Information

Preparation of MSDS:

Prepared by: SDI Limited Phone Number:

3-13 Brunsdon Street, Bayswater Victoria, 3153, Australia

+61 3 8727 7111

The information contained in the Material Safety Data Sheet is based on data considered to be accurate, however, no warranty is expressed or implied regarding the accuracy of the data or the results to be obtained from the use thereof.

Department issuing MSDS: Research and Development

Contact: Operations Director



Riva Light Cure (powder)

SDI Limited

Version No: 5.1.1.1

Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Issue Date: 18/03/2016 Print Date: 30/03/2016 Initial Date: Not Available L.GHS.USA.EN

SECTION 1 IDENTIFICATION

Product Identifier

Product name	Riva Light Cure (powder)
Synonyms	Not Available
Other means of identification	Not Available

Recommended use of the chemical and restrictions on use

Relevant identified uses Powder for the making of dental restorative cement by dental professionals, when mixed with Riva Light Cure liquid.

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	SDI Limited	SDI Brazil Industria E Comercio Ltda	SDI Germany GmbH	
Address	3-15 Brunsdon Street VIC Bayswater 3153 Australia	Rua Dr. Virgilio de Carvalho Pinto, 612 São Paulo CEP 05415-020 Brazil	Hansestrasse 85 Cologne D-51149 Germany	
Telephone	+61 3 8727 7111 (Business Hours)	+55 11 3092 7100	+49 0 2203 9255 0	
Fax	+61 3 8727 7222	+55 11 3092 7101	+49 0 2203 9255 200	
Website	www.sdi.com.au	www.sdi.com.au	www.sdi.com.au	
Email	info@sdi.com.au	brasil@sdi.com.au	germany@sdi.com.au	
Registered company name	Registered company name SDI (North America) Inc.			
Address	1279 Hamilton Parkway IL Itasca 60143 United States			
Telephone	+1 630 361 9200 (Business hours)			
Fax	Not Available			
Website	Not Available			
Email	USA.Canada@sdi.com.au			

Emergency phone number

Emergency phone number				
Association / Organisation	SDI Limited	Not Available	Not Available	
Emergency telephone numbers	+61 3 8727 7111	8727 7111 Not Available		
Other emergency telephone numbers	ray.cahill@sdi.com.au	Not Available	Not Available	
Association / Organisation	Not Available			
Emergency telephone numbers	+61 3 8727 7111			
Other emergency telephone numbers	Not Available			

SECTION 2 HAZARD(S) IDENTIFICATION

Classification of the substance or mixture NFPA 704 diamond



Note: The hazard category numbers found in GHS classification in section 2 of this SDSs are NOT to be used to fill in the NFPA 704 diamond. Blue = Health Red = Fire Yellow = Reactivity White = Special (Oxidizer or water reactive substances)

Classification Not Applicable

Version No: 5.1.1.1 Page 2 of 7 Issue Date: 18/03/2016

Riva Light Cure (powder)

Print Date: 30/03/2016

GHS label elements Not Applicable SIGNAL WORD **NOT APPLICABLE**

Hazard statement(s)

Not Applicable

Hazard(s) not otherwise specified

Not Applicable

Precautionary statement(s) Prevention

Not Applicable

Precautionary statement(s) Response

Not Applicable

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

Not Applicable

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
Not Available	95-100	glass powder

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

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	If skin or hair contact occurs: ► Flush skin and hair with running water (and soap if available). ► Seek medical attention in event of irritation.
Inhalation	 If fumes or combustion products are inhaled remove from contaminated area. Seek 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. Seek medical attention.

Most important symptoms and effects, both acute and delayed

See Section 11

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 FIRE-FIGHTING MEASURES

Extinguishing media

Foam is generally ineffective.

Fire Incompatibility

Fire Fighting

Special hazards arising from the substrate or mixture

None known.

Special protective equipment and precautions for fire-fighters

- ▶ Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves in the event of a fire. Prevent, by any means available, spillage from entering drains or water courses.
- ▶ Use fire fighting procedures suitable for surrounding area.
 - DO NOT approach containers suspected to be hot.
 - Cool fire exposed containers with water spray from a protected location.
 - If safe to do so, remove containers from path of fire.
 - ▶ Equipment should be thoroughly decontaminated after use.

Version No: 5.1.1.1 Page 3 of 7 Issue Date: 18/03/2016 Print Date: 30/03/2016

Riva Light Cure (powder)

Fire/Explosion Hazard

- Non combustible.
- Not considered a significant fire risk, however containers may burn.

May emit poisonous fumes. May emit corrosive fumes

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Minor Spills

Major Spills

- ▶ Remove all ignition sources.
- Clean up all spills immediately.
- Avoid contact with skin and eyes.
- Control personal contact with the substance, by using protective equipment.
- Use dry clean up procedures and avoid generating dust
- Place in a suitable, labelled container for waste disposal.

Moderate hazard.

- **CAUTION**: Advise personnel in area.
- Alert Emergency Services and tell them location and nature of hazard.
- Control personal contact by wearing protective clothing.
- Prevent, by any means available, spillage from entering drains or water courses.
- Recover product wherever possible.
- IF DRY: Use dry clean up procedures and avoid generating dust. Collect residues and place in sealed plastic bags or other containers for disposal. IF WET: Vacuum/shovel up and place in labelled containers for disposal.
- ALWAYS: Wash area down with large amounts of water and prevent runoff into drains.
- ▶ If contamination of drains or waterways occurs, advise Emergency Services.

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

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- ▶ DO NOT enter confined spaces until atmosphere has been checked.
- DO NOT allow material to contact humans, exposed food or food utensils.
- Avoid contact with incompatible materials. Safe handling
 - When handling, DO NOT eat, drink or smoke
 - Keep containers securely sealed when not in use.
 - Avoid physical damage to containers.
 - Always wash hands with soap and water after handling.
 - Work clothes should be laundered separately. Launder contaminated clothing before re-use.
 - Use good occupational work practice.
 - Observe manufacturer's storage and handling recommendations contained within this SDS.
 - Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

Other information

Store between 5 and 30 deg C. Do not store in direct sunlight.

Store in a dry and well ventilated-area, away from heat and sunlight.

Conditions for safe storage, including any incompatibilities

Suitable container	► DO NOT repack. Use containers supplied by manufacturer only.
Storage incompatibility	► Avoid strong acids, acid chlorides, acid anhydrides and chloroformates.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

controls

INGREDIENT DATA

Not Available

EMERGENCY LIMITS

1				
Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
Riva Light Cure (powder)	Not Available	Not Available	Not Available	Not Available
Ingredient	Original IDLH		Revised IDLH	
glass powder	Not Available		Not Available	

MATERIAL DATA

Exposure controls

ı	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
ı	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. Appropriate engineering

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. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use

Employers may need to use multiple types of controls to prevent employee overexposure

Version No: **5.1.1.1** Page **4** of **7** Issue Date: **18/03/2016**

Riva Light Cure (powder)

Print Date: 30/03/2016

- Local exhaust ventilation is required where solids are handled as powders or crystals; even when particulates are relatively large, a certain proportion will be powdered by mutual friction.
- Fig. 16 If in spite of local exhaust an adverse concentration of the substance in air could occur, respiratory protection should be considered.

Such protection might consist of:

- (a): particle dust respirators, if necessary, combined with an absorption cartridge;
- (b): filter respirators with absorption cartridge or canister of the right type;
- (c): fresh-air hoods or masks.

Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

Type of Contaminant:	Air Speed:
direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min.)
grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).	2.5-10 m/s (500-2000 f/min.)

Within each range the appropriate value depends on:

Lower end of the range	Upper end of the range
1: Room air currents minimal or favourable to capture	1: Disturbing room air currents
2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity
3: Intermittent, low production.	3: High production, heavy use
4: Large hood or large air mass in motion	4: Small hood-local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 4-10 m/s (800-2000 f/min) for extraction of crusher dusts generated 2 metres distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

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. 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]

Skin protection

See Hand protection below

Hands/feet protection

► Rubber Gloves

See Other protection below

Body protection

Overalls.

Other protection

- ▶ P.V.C. apron.
- Barrier cream.
- ► Skin cleansing cream.
- ► Eye wash unit.

Thermal hazards

Not Available

Respiratory protection

Particulate. (AS/NZS 1716 & 1715, EN 143:000 & 149:001, ANSI Z88 or national equivalent)

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	P1 Air-line*	-	PAPR-P1
up to 50 x ES	Air-line**	P2	PAPR-P2
up to 100 x ES	-	P3	-
		Air-line*	-
100+ x ES	-	Air-line**	PAPR-P3

^{* -} Negative pressure demand ** - Continuous flow

 $A(AII\ classes) = Organic\ vapours,\ B\ AUS\ or\ B1 = Acid\ gasses,\ B2 = Acid\ gas\ or\ hydrogen\ cyanide(HCN),\ B3 = Acid\ gas\ or\ hydrogen\ cyanide(HCN),\ E = Sulfur\ dioxide(SO2),\ G = Agricultural\ chemicals,\ K = Ammonia(NH3),\ Hg = Mercury,\ NO = Oxides\ of\ nitrogen,\ MB = Methyl\ bromide,\ AX = Low\ boiling\ point\ organic\ compounds(below\ 65\ degC)$

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

information on basic physical and chemical properties				
Appearance	Fine white powder, insoluble in water.			
Physical state	Divided Solid	Relative density (Water = 1)	Not Available	

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Riva Light Cure (powder)

Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	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 Applicable
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 Available	Surface Tension (dyn/cm or mN/m)	Not Applicable
Lower Explosive Limit (%)	Not Available	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 Available
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

dence exists, or practical experience rect contact, and/or produces significant twenty-four hours or more after form of contact dermatitis (nonaller or blistering (vesiculation), scaling ar pongiosis) and intracellular oedema abraded or irritated skin should not he blood-stream through, for example the use of the material and ensure	nce predicts, that the n nificant inflammation v or the end of the expos ergic). The dermatitis i and thickening of the na of the epidermis. ot be exposed to this nple, cuts, abrasions, p	e material either pr n when applied to t osure period. Skin s is often characte e epidermis. At the s material	oduces inflammation of the healthy intact skin of a irritation may also be prerised by skin redness (er e microscopic level there	animals, for up to fou esent after prolonged rythema) and swellin	ur hours, such inflammat d or repeated exposure; th ng (oedema) which may
irect contact, and/or produces significant twenty-four hours or more after to form of contact dermatitis (nonallers) blistering (vesiculation), scaling ar pongiosis) and intracellular oedema abraded or irritated skin should not he blood-stream through, for examp of the use of the material and ensure	nificant inflammation var the end of the exposergic). The dermatitis is and thickening of the ena of the exposed to this inple, cuts, abrasions, properties.	n when applied to to osure period. Skin s is often characte e epidermis. At the s material	he healthy intact skin of a irritation may also be pre rised by skin redness (er e microscopic level there	animals, for up to fou esent after prolonged rythema) and swellin	ur hours, such inflammat d or repeated exposure; th ng (oedema) which may
donas avieta ar praetical avpariona	re that any external da			e systemic injury with	n harmful effects. Examin
Limited evidence exists, or practical experience suggests, that the material may cause eye irritation in a substantial number of individuals and/or is expected to 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.					
ss exposure by all routes should be exposure to high dust concentration	e minimised as a mati	atter of course. inges in lung functi	on (i.e. pneumoconiosis)	•	
ГҮ			RRITATION		
i	exposure by all routes should be exposure to high dust concentrating and remaining in the lung. A primary	exposure by all routes should be minimised as a mexposure to high dust concentrations may cause charge and remaining in the lung. A prime symptom is breat	exposure by all routes should be minimised as a matter of course. exposure to high dust concentrations may cause changes in lung functions grand remaining in the lung. A prime symptom is breathlessness. Lung start	exposure to high dust concentrations may cause changes in lung function (i.e. pneumoconiosis) g and remaining in the lung. A prime symptom is breathlessness. Lung shadows show on X-ray. TY IRRITATION ilable Not Available	exposure to high dust concentrations may cause changes in lung function (i.e. pneumoconiosis) caused by particles g and remaining in the lung. A prime symptom is breathlessness. Lung shadows show on X-ray. TY IRRITATION

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Riva Light Cure (powder)

Acute Toxicity	0	Carcinogenicity	0
Skin Irritation/Corrosion	0	Reproductivity	0
Serious Eye Damage/Irritation	0	STOT - Single Exposure	0
Respiratory or Skin sensitisation	0	STOT - Repeated Exposure	0
Mutagenicity	0	Aspiration Hazard	0

Legend:

X − Data available but does not fill the criteria for classification
 ✓ − Data required to make classification available

O - Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source	
Not Available	Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable					
Legend:	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data					

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air	
	No Data available for all ingredients	No Data available for all ingredients	

Bioaccumulative potential

Ingredient	Bioaccumulation
	No Data available for all ingredients

Mobility in soil

Ingredient	Mobility
	No Data available for all ingredients

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / Packaging disposal

- ▶ DO NOT allow wash water from cleaning or process equipment to enter drains.
- It may be necessary to collect all wash water for treatment before disposal.
- ▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- ▶ Where in doubt contact the responsible authority.

Consult State Land Waste Management Authority for disposal.

Bury residue in an authorised landfill

SECTION 14 TRANSPORT INFORMATION

Labels Required

Marine Pollutant

Land transport (DOT): 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

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

SECTION 15 REGULATORY INFORMATION

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

Federal Regulations

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SECTION 311/312 HAZARD CATEGORIES

NO Immediate (acute) health hazard

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Riva Light Cure (powder)

Delayed (chronic) health hazard	NO
Fire hazard	NO
Pressure hazard	NO
Populi it i horord	NO.

US. EPA CERCLA HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES (40 CFR 302.4)

None Reported

State Regulations

US. CALIFORNIA PROPOSITION 65

None Reported

National Inventory	Status
Australia - AICS	Υ
Canada - DSL	Y
Canada - NDSL	Υ
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	Y
Japan - ENCS	Υ
Korea - KECI	Y
New Zealand - NZIoC	Y
Philippines - PICCS	Y
USA - TSCA	Y
Legend:	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

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 SDI Limited using available literature references.

The 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.

Definitions and abbreviations

PC-TWA: Permissible Concentration-Time Weighted Average

PC-STEL: Permissible Concentration-Short Term Exposure Limit

IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists

STEL: Short Term Exposure Limit

TEEL: Temporary Emergency Exposure Limit。

IDLH: Immediately Dangerous to Life or Health Concentrations

OSF: Odour Safety Factor

NOAEL :No Observed Adverse Effect Level

LOAEL: Lowest Observed Adverse Effect Level

TLV: Threshold Limit Value LOD: Limit Of Detection

OTV: Odour Threshold Value

BCF: BioConcentration Factors

BEI: Biological Exposure Index

The information contained in the Safety Data Sheet is based on data considered to be accurate, however, no warranty is expressed or implied regarding the accuracy of the data or the results to be obtained from the use thereof.

Other information:

Prepared by: SDI Limited

3-15 Brunsdon Street, Bayswater Victoria, 3153, Australia

Phone Number: +61 3 8727 7111

Date of preparation/revision: 23rd September 2015 Department issuing SDS: Research and Development

Contact: Technical Director



Global Safety Management, Inc

To Whom	It May	Concern:	

Riva Light Cure Powder/Liquid Kit.

This product is a kit with multiple components. Please see the individual component SDSs for information.

The GSM Reference numbers are:

GSM-019050
GSM-019049

Sincerely,

The Global Safety Management Team www.globalmsdslibrary.com 1-813-435-5161
