1. Identification of the substance/mixture and of the Company/undertaking:

1.1 Product identifier:

Product Names: Riva Star

1.2 Relevant identified use:

Professional dental use: (Riva Star is comprised of Riva Star Step 1 and Riva Star Step 2) for use as a tooth desensitising agent.

1.3 Details of the supplier of the Safety Data Sheet:

Manufacturer / Supplier

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

Telephone: +61 3 8727 7111 (Business hours)

Southern Dental Industries Ltd
Block 8, St Johns Court
Swords Road
Santry, Dublin 9, Ireland

Telephone: +353 1 886 9577 (Business Hours)

Emergency contact number: +61 3 8727 7111

Email: ray.cahill@sdi.com.au (Technical Director, SDI Limited)

2. Hazard Identification

Since Riva Star Step 1 is supplied in contained capsules in very small quantities, that is, 0.05mL per capsule, the likelihood of hazard exposure is low.

Classification of the substance/mixture:
Riva Star Step 2: non-hazardous.

Riva Star Step 1: Hazardous:

SIGNAL WORD: DANGER
2. **Hazard Identification...continued**

GHS Classification:
- Skin Corrosion 1B
- Aquatic Acute 1

Hazard statement:
- **H314**: Causes severe skin burns and eye damage.
- **H400**: Very toxic to aquatic organisms

Precautionary statements:

**Prevention:**
- **P102**: Keep out of reach of children.
- **P264**: Wash skin and hands thoroughly after handling.
- **P280**: Wear suitable protective clothing, gloves and eye/face protection.

**Response:**
- **P301+P330+P331**: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- **P303+P361+P353**: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
- **P305+P351+P338**: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- **P310**: Immediately call a POISON CENTRE or doctor/physician.
- **P363**: Wash contaminated clothing before reuse.

**Storage:**
- **P405**: Store locked up.

**Disposal:**
- **P501**: Dispose of contents according to local regulations.

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2. **Composition / Information on hazardous ingredients**

Each 0.05ml capsule of **Riva Star Step 1** contains:

<table>
<thead>
<tr>
<th>Composition</th>
<th>CAS No.</th>
<th>w/v %</th>
<th>EC No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silver Fluoride</td>
<td>7775-41-9</td>
<td>35 – 40</td>
<td>231-895-8</td>
</tr>
<tr>
<td>Ammonia</td>
<td>1336-21-6</td>
<td>15-20</td>
<td>215-647-6</td>
</tr>
<tr>
<td>Deionised Water</td>
<td>7732-18-5</td>
<td>balance</td>
<td></td>
</tr>
</tbody>
</table>

Silver fluoride: Skin Corr 1B; H314
Ammonia: Skin Corr 1B; Aquatic Acute 1: H314, H400.

Riva Star Step 2 is non-hazardous.
4. First Aid Measures

Eye (contact): Hold eyelids apart and flush the eye continuously with running water. Continue to flush until advised to stop by a Poisons Information Centre (Australia 131 126), or a doctor, or for at least 15 minutes.

Skin (contact): Remove contaminated clothing. Flush skin with running water.

Ingestion: Not expected due to dose volume. If affected, do NOT induce vomiting. Give a glass of milk or water. Contact a doctor or Poisons Information Centre.

Inhalation: Not expected due to dose volume. If affected, remove from contaminated area.

Most important effects, acute and delayed:

The most important known symptoms and effects are described in section 2 and/or in section 11.

Indication of any immediate medical attention and special treatment needed: No data available.

5. Fire Fighting Measures

Suitable extinguishing media: Chemical foam, carbon dioxide, dry chemical powder.

Unusual Fire and Explosion Hazards: Emits toxic fumes under fire conditions

Unsuitable extinguishing media: No available data

Specific hazards arising from the mixture: No available data

Special protective equipment: Wear self contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6. Accidental Release Measures

Personal precautions: Wear self contained breathing apparatus, rubber boots and heavy rubber gloves.

Environmental precautions: Prevent any spillage from entering waterways, drains or sewage system.

Methods for cleaning up: Add a weak acid to adjust the pH at controlled rate to avoid excess ammonia liberation. Use absorbent material to collect neutralised material.

Methods for cleaning and containment of spills: Absorb with inert material (saw dust, sand, diatomaceous earth) and transfer to containers for disposal as hazardous waste in accordance with local regulations.

7. Handling and storage

Precautions for safe handling: Follow instruction for use. The product should be supplied to or handled by dental professionals. Do not breathe vapour, do not get in eyes, on skin or clothing.

Conditions for safe storage, including any incompatibilities:
Store in a cool place at temperatures (2 – 8°C) away from direct light.

Specific end use: Apart from the use mentioned in section 1.2, there are no other uses for the product.

8. Exposure controls and personal protection

Control parameters:
Occupational exposure limits: Not aware of any national exposure limit.
Respiratory protection: Not required under normal conditions of use.
Hand protection: Rubber, latex or PVC gloves.
Eye protection: Safety glasses or goggles.
General safety and hygiene measures: Follow good housekeeping practices and good industrial hygiene in handling this material. Remove any naked lights or strong heat sources.

9. Physical and chemical properties

**Riva Star Step 1:**
Appearance: Clear, colourless liquid.
Odour: Ammonia.
Boiling point: not established
Melting point: Not established.
Specific gravity: 1.2
Flash point: Not applicable
Auto-flammability: not established.
Explosive properties: not applicable.
Oxidizing properties: not established.
Vapour pressure (@ 20°C): 115 mmHg.
Vapour density: no data available.
Solubility: not established.
Auto-ignition temperature: not established.
Decomposition temperature: not established.
10. Stability and Reactivity

Reactivity: No data available.
Stability: Stable under normal conditions.
Conditions to avoid: Avoid heat, ignition sources, aging, contamination and intense visible light.
Materials to avoid: Copper, copper alloys, galvanised iron, zinc.
Hazardous decomposition products: Nitrogen oxides, ammonia.
Hazardous reactivity (Polymerization): Will not occur.

11. Toxicological information

Ammonium hydroxide toxicity:
Toxicity to animals: Acute oral toxicity (LD50): 350mg/kg (rat)
Toxic effects on humans: Corrosive in case of skin contact. Hazardous in case of eye contact (corrosive) and of inhalation (lung corrosive).
Toxic effects on animals: Toxic to aquatic life.

Acute toxicity of Riva Star: Corrosive to skin and eyes, and by inhalation. Toxic to aquatic life, and harmful by ingestion.

Skin corrosion/irritation: Corrosive to skin.

Serious eye damage/eye irritation: Corrosive to eyes.

Respiratory or skin sensitisation: Corrosive to respiratory tract

Germ cell mutagenicity: No data available.

Carcinogenicity: IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. (IARC: International Agency for Research on Cancer, by the World Health Organisation (WHO)).

Reproductive toxicity: No data available.

Specific target organ toxicity - single exposure: Corrosive to skin, eyes and respiratory tract.
Specific target organ toxicity - repeated exposure: No data available.
Aspiration hazard: No data available.
12. Ecological information

Self assessment: Hazardous for water and aquatic life. Do not allow large quantities to reach sewage system and waterways.

Ecotoxicity: No data available.

Persistence and biodegradeability: No data available.

Bioaccumulative potential: No data available.

Mobility in soil: No data available.

Results of PBT and VPvB assessment: PBT/VPvB assessment not available as chemical safety assessment not required/not conducted.

Other adverse effects: No data available.

13. Disposal considerations

Dispose of in accordance with local official regulations.

Contaminated packaging: Dispose of contaminated packaging as hazardous waste in accordance with local official regulations.

14. Transport information

Product: Riva Star
Proper Shipping Name: Ammonia Solution
UN Number: 2672
Packing Group: III
Class (sub risk): 8

If packed as Chemical kit the following classification may be considered if all ICAO/IATA transport requirements are met:
Chemical Kit UN3316 - Class 9.

15. Regulatory information

This product is regulated by: TGA; Medical Devices Directive 93/42/EEC; National regulations for medical devices.

16. Other information

The information provided herein is given in good faith, but no warranty expressed or implied is made.

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Department issuing MSDS: Research and Development
Contact: R & D Director