

### SDI Limited Version No: 7.1

Safety data sheet according to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758

lssue Date: **10/03/2023** Print Date: **22/11/2023** L.REACH.GB.EN

### SECTION 1 Identification of the substance / mixture and of the company / undertaking

1.1. Product Identifier	
Product name	Riva Silver Capsules
Chemical Name	Not Applicable
Synonyms	Not Available
Chemical formula	Not Applicable
Other means of identification	Not Available

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	For filling of cavitated teeth by dental professionals.
Uses advised against	No specific uses advised against are identified.

### 1.3. Details of the manufacturer or supplier of the safety data sheet

Registered company name	SDI Limited	SDI (North America) Inc.	SDI Germany GmbH		
Address	3-15 Brunsdon Street Bayswater VIC 3153 Australia	1279 Hamilton Parkway Itasca IL 60143 United States	Hansestrasse 85 Cologne D-51149 Germany		
Telephone	+61 3 8727 7111	+1 630 361 9200	+49 0 2203 9255 0		
Fax	+61 3 8727 7222	Not Available	+49 0 2203 9255 200		
Website	www.sdi.com.au	www.sdi.com.au	www.sdi.com.au		
Email	info@sdi.com.au	USA.Canada@sdi.com.au	germany@sdi.com.au		
Registered company name SDI HOLDINGS PTY LTD DO					
Address	Rua Dr. Reinaldo Schmithausen 3141 – Cordeiros Itajaí – SC – CEP 88310-004 Brazil				
Telephone	+55 11 3092 7100				
Fax	Not Available				
Website	http://www.sdi.com.au/				
Email	Brasil@sdi.com.au				

### 1.4. Emergency telephone number

Association / Organisation	SDI Limited	CHEMWATCH EMERGENCY RESPONSE (24/7)	
Emergency telephone numbers	131126 Poisons Information Centre	+44 20 3901 3542	
Other emergency telephone numbers	+61 3 8727 7111	+44 808 164 9592	

Once connected and if the message is not in your preferred language then please dial 01

### **SECTION 2 Hazards identification**

2.1. Classification of the substance or mixture				
Classified according to GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567 [1]	H315 - Skin Corrosion/Irritation Category 2, H319 - Serious Eye Damage/Eye Irritation Category 2, H335 - Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3			
Legend:	1. Classification by vendor; 2. Classification drawn from GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567			

### 2.2. Label elements

Hazard pictogram(s)	

### Hazard statement(s)

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

### Supplementary statement(s)

Not Applicable

### Precautionary statement(s) Prevention

P271	Use only outdoors or in a well-ventilated area.
P261	Avoid breathing mist/vapours/spray.
P280	Wear protective gloves, protective clothing, eye protection and face protection.
P264	Wash all exposed external body areas thoroughly after handling.

### Precautionary statement(s) Response

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.
P337+P313	If eye irritation persists: Get medical advice/attention.
P302+P352	IF ON SKIN: Wash with plenty of water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

### Precautionary statement(s) Storage

P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

### Precautionary statement(s) Disposal

P501

Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

### 2.3. Other hazards

Ingestion may produce health damage\*.

Cumulative effects may result following exposure\*.

REACH - Art.57-59: The mixture does not contain Substances of Very High Concern (SVHC) at the SDS print date.

### **SECTION 3 Composition / information on ingredients**

### 3.1.Substances

See 'Composition on ingredients' in Section 3.2

### 3.2.Mixtures

1. CAS No 2.EC No 3.Index No 4.REACH No	%[weight]	Name	Classified according to GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567	SCL / M-Factor	Nanoform Particle Characteristics
Not Available		Compartment 1 contains	Not Applicable	Not Applicable	Not Available
1. 9003-01-4 2.Not Available 3.Not Available 4.01-2120754771-50-XXXX	30	acrylic acid homopolymer	Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2, Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3, Hazardous to the Aquatic Environment Long-Term Hazard Category 2; H315, H319, H335, H411 <sup>[1]</sup>	Not Available	Not Available
1. 87-69-4 2.201-766-0 3.Not Available 4.01-2119537204-47-XXXX	10	tartaric acid	Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2, Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3; H315, H319, H335 <sup>[1]</sup>	Not Available	Not Available
Not Available		Compartment 2 contains	Not Applicable	Not Applicable	Not Available
1. Not Available 2.Not Applicable 3.Not Applicable 4.Not Available	40-60	glass powder	Not Classified [1]	Not Available	Not Available
1. 9003-01-4 2.Not Available 3.Not Available 4.01-2120754771-50-XXXX	<10	acrylic acid homopolymer	Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2, Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3, Hazardous to the Aquatic Environment Long-Term Hazard Category 2; H315, H319, H335, H411 <sup>[1]</sup>	Not Available	Not Available

1. CAS No 2.EC No 3.Index No 4.REACH No	%[weight]	Name	Classified according to GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567	SCL / M-Factor	Nanoform Particle Characteristics
Not Available	30-50	alloy powder	Not Applicable	Not Applicable	Not Available
Legend:		<ol> <li>Classification by vendor; 2. Classification drawn from GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567; 3. Classification drawn from C&amp;L * EU IOELVs available; [e] Substance identified as having endocrine disrupting properties</li> </ol>			

### **SECTION 4 First aid measures**

### 4.1. Description of first aid measures

Eye Contact	<ul> <li>If this product comes in contact with the eyes:</li> <li>Wash out immediately with fresh running water.</li> <li>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.</li> <li>Seek medical attention without delay; if pain persists or recurs seek medical attention.</li> <li>Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>
Skin Contact	If skin contact occurs: <ul> <li>Immediately remove all contaminated clothing, including footwear.</li> <li>Flush skin and hair with running water (and soap if available).</li> <li>Seek medical attention in event of irritation.</li> </ul>
Inhalation	<ul> <li>If fumes or combustion products are inhaled remove from contaminated area.</li> <li>Seek medical attention.</li> </ul>
Ingestion	<ul> <li>Immediately give a glass of water.</li> <li>First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.</li> <li>Seek medical attention.</li> </ul>

### 4.2 Most important symptoms and effects, both acute and delayed

See Section 11

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

### **SECTION 5 Firefighting measures**

### 5.1. Extinguishing media

Foam is generally ineffective.

# 5.2. Special hazards arising from the substrate or mixture

Fire Incompatibility	None known.
Advice for firefighters	
Fire Fighting	<ul> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Wear breathing apparatus plus protective gloves.</li> <li>Prevent, by any means available, spillage from entering drains or water courses.</li> <li>Use water delivered as a fine spray to control fire and cool adjacent area.</li> <li>DO NOT approach containers suspected to be hot.</li> <li>Cool fire exposed containers with water spray from a protected location.</li> <li>If safe to do so, remove containers from path of fire.</li> <li>Equipment should be thoroughly decontaminated after use.</li> </ul>
Fire/Explosion Hazard	<ul> <li>Combustible.</li> <li>Slight fire hazard when exposed to heat or flame.</li> <li>Heating may cause expansion or decomposition leading to violent rupture of containers.</li> <li>On combustion, may emit toxic fumes of carbon monoxide (CO).</li> <li>May emit acrid smoke.</li> <li>Mists containing combustible materials may be explosive.</li> <li>Combustion products include:</li> <li>carbon dioxide (CO2)</li> <li>other pyrolysis products typical of burning organic material.</li> <li>May emit poisonous fumes.</li> <li>May emit corrosive fumes.</li> </ul>

### **SECTION 6** Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

See section 8

### 6.2. Environmental precautions

See section 12

### 6.3. Methods and material for containment and cleaning up

	Clean up all spills immediately.
Minor Spills	Avoid contact with skin and eyes.
	Wear impervious gloves and safety goggles.

	<ul> <li>Trowel up/scrape up.</li> <li>Place spilled material in clean, dry, sealed container.</li> <li>Flush spill area with water.</li> </ul>
Major Spills	<ul> <li>Clear area of personnel and move upwind.</li> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Wear breathing apparatus plus protective gloves.</li> <li>Prevent, by any means available, spillage from entering drains or water course.</li> <li>Stop leak if safe to do so.</li> <li>Contain spill with sand, earth or vermiculite.</li> <li>Collect recoverable product into labelled containers for recycling.</li> <li>Neutralise/decontaminate residue (see Section 13 for specific agent).</li> <li>Collect solid residues and seal in labelled drums for disposal.</li> <li>Wash area and prevent runoff into drains.</li> <li>After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.</li> <li>If contamination of drains or waterways occurs, advise emergency services.</li> </ul>

### 6.4. Reference to other sections

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

### SECTION 7 Handling and storage

# 7.1. Precautions for safe handling

Safe handling	<ul> <li>Avoid all personal contact, including inhalation.</li> <li>Wear protective clothing when risk of exposure occurs.</li> <li>Use in a well-ventilated area.</li> <li>Prevent concentration in hollows and sumps.</li> <li>DO NOT enter confined spaces until atmosphere has been checked.</li> <li>DO NOT allow material to contact humans, exposed food or food utensils.</li> <li>Avoid contact with incompatible materials.</li> <li>When handling, DO NOT eat, drink or smoke.</li> <li>Keep containers securely sealed when not in use.</li> <li>Avoid physical damage to containers.</li> <li>Always wash hands with scap and water after handling.</li> <li>Work clothes should be laundered separately. Launder contaminated clothing before re-use.</li> <li>Use good occupational work practice.</li> <li>Observe manufacturer's storage and handling recommendations contained within this SDS.</li> <li>Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.</li> </ul>
Fire and explosion protection	See section 5
Other information	Store between 5 and 25 deg. C. <b>Do not</b> store in direct sunlight. Store in a dry and well ventilated-area, away from heat and sunlight.

# 7.2. Conditions for safe storage, including any incompatibilities

Suitable container	<ul> <li>DO NOT repack. Use containers supplied by manufacturer only.</li> <li>Check that containers are clearly labelled and free from leaks</li> </ul>
Storage incompatibility	None known
Hazard categories in accordance with Regulation (EC) No 1272/2008	Not Available
Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of	Not Available

### 7.3. Specific end use(s)

See section 1.2

### SECTION 8 Exposure controls / personal protection

### 8.1. Control parameters

Ingredient	DNELs PNECs Exposure Pattern Worker Compartment	
acrylic acid homopolymer	Dermal 0.56 mg/kg bw/day (Systemic, Chronic) Inhalation 1.97 mg/m <sup>3</sup> (Systemic, Chronic) Dermal 0.2 mg/kg bw/day (Systemic, Chronic) * Inhalation 0.348 mg/m <sup>3</sup> (Systemic, Chronic) * Oral 0.2 mg/kg bw/day (Systemic, Chronic) *	0.003 mg/L (Water (Fresh)) 0.001 mg/L (Water - Intermittent release) 0 mg/L (Water (Marine)) 0.021 mg/kg sediment dw (Sediment (Fresh Water)) 0.002 mg/kg sediment dw (Sediment (Marine)) 0.003 mg/kg soil dw (Soil) 0.9 mg/L (STP)
acrylic acid homopolymer	Dermal 0.56 mg/kg bw/day (Systemic, Chronic) Inhalation 1.97 mg/m <sup>3</sup> (Systemic, Chronic) Dermal 0.2 mg/kg bw/day (Systemic, Chronic) * Inhalation 0.348 mg/m <sup>3</sup> (Systemic, Chronic) * Oral 0.2 mg/kg bw/day (Systemic, Chronic) *	0.003 mg/L (Water (Fresh)) 0.001 mg/L (Water - Intermittent release) 0 mg/L (Water (Marine)) 0.021 mg/kg sediment dw (Sediment (Fresh Water)) 0.002 mg/kg sediment dw (Sediment (Marine)) 0.003 mg/kg soil dw (Soil) 0.9 mg/L (STP)

\* Values for General Population

### Occupational Exposure Limits (OEL)

# INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Not Available						

# Not Applicable

Ingredient	TEEL-1	TEEL-2		TEEL-3
tartaric acid	1.6 mg/m3	17 mg/m3		100 mg/m3
In mediense			Davies d IDI II	
Ingredient	Original IDLH		Revised IDLH	
acrylic acid homopolymer	Not Available		Not Available	
tartaric acid	Not Available		Not Available	
glass powder	Not Available		Not Available	
acrylic acid homopolymer	Not Available		Not Available	

### Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit	
acrylic acid homopolymer	E	≤ 0.01 mg/m³	
tartaric acid	E	≤ 0.01 mg/m³	
acrylic acid homopolymer	E	≤ 0.01 mg/m³	
Notes:	Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the		

Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.

### MATERIAL DATA

# 8.2. Exposure controls

•				
	Engineering controls are used to remove a hazard or place a be highly effective in protecting workers and will typically be The basic types of engineering controls are: Process controls which involve changing the way a job activi Enclosure and/or isolation of emission source which keeps a "adds" and "removes" air in the work environment. Ventilation ventilation system must match the particular process and che Employers may need to use multiple types of controls to prev General exhaust is adequate under normal operating conditii overexposure exists, wear approved respirator. Supplied-air ensure adequate protection. Provide adequate ventilation in workplace possess varying "escape" velocities which, in turn remove the contaminant.	independent of worker interactions to provide this high level ty or process is done to reduce the risk. selected hazard "physically" away from the worker and ven n can remove or dilute an air contaminant if designed proper emical or contaminant in use. vent employee overexposure. ons. Local exhaust ventilation may be required in special cirr type respirator may be required in special circumstances. C warehouses and enclosed storage areas. Air contaminants	of protection. tilation that strategically rly. The design of a cumstances. If risk of orrect fit is essential to generated in the	
	Type of Contaminant:		Air Speed:	
	solvent, vapours, degreasing etc., evaporating from tank (i	0.25-0.5 m/s (50-100 f/min)		
8.2.1. Appropriate engineering	aerosols, fumes from pouring operations, intermittent conta drift, plating acid fumes, pickling (released at low velocity in	0.5-1 m/s (100-200 f/min.)		
controls	direct spray, spray painting in shallow booths, drum filling, generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min.)		
	grinding, abrasive blasting, tumbling, high speed wheel get 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	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 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical consideration 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.			
9.2.2 Individual protoction				

8.2.2. Individual protection measures, such as personal protective equipment



Eye and face protection	<ul> <li>Safety glasses with side shields.</li> <li>Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent]</li> <li>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].</li> </ul>
Skin protection	See Hand protection below
Hands/feet protection	<ul> <li>Wear chemical protective gloves, e.g. PVC.</li> <li>Wear safety footwear or safety gumboots, e.g. Rubber</li> <li>Rubber Gloves</li> </ul>
Body protection	See Other protection below
Other protection	<ul> <li>Overalls.</li> <li>P.V.C apron.</li> <li>Barrier cream.</li> <li>Skin cleansing cream.</li> <li>Eye wash unit.</li> </ul>

### 8.2.3. Environmental exposure controls

See section 12

### **SECTION 9** Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Appearance	Smooth, light-grey coloured paste with slightly characteristic odour, partially mixes with water.		
Physical state	Non Slump Paste	Relative density (Water = 1)	1.0
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 (°C)	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 Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Partly miscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available
Nanoform Solubility	Not Available	Nanoform Particle Characteristics	Not Available
Particle Size	Not Available		

### 9.2. Other information

Not Available

# **SECTION 10 Stability and reactivity**

10.1.Reactivity	See section 7.2
10.2. Chemical stability	Product is considered stable and hazardous polymerisation will not occur.
10.3. Possibility of hazardous reactions	See section 7.2
10.4. Conditions to avoid	See section 7.2
10.5. Incompatible materials	See section 7.2
10.6. Hazardous decomposition products	See section 5.3

### **SECTION 11 Toxicological information**

### 11.1. Information on toxicological effects

	Evidence shows, or practical experience predicts, that the material produces irritation of the respiratory system, in a substantial number of
Inhaled	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. Respiratory tract irritation often results in an inflammatory response involving the recruitment and activation of many cell types, mainly derived from the vascular system.		
Ingestion	Accidental ingestion of the material may be damaging to	the health of the individual.	
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. The material may accentuate any pre-existing dermatitis condition Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.		
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	Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems. Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems.		
	τοχιςιτγ	IRRITATION	
Riva Silver Capsules	Not Available	Not Available	
	τοχιςιτγ	IRRITATION	
	Dermal (rabbit) LD50: >2000 mg/kg <sup>[1]</sup>	Eye: adverse effect observed (irreversible damage) <sup>[1]</sup>	
acrylic acid homopolymer	Inhalation(Rat) LC50: >5.1 mg/l4h <sup>[1]</sup>	Skin: no adverse effect observed (not irritating) <sup>[1]</sup>	
	Oral (Rat) LD50: 146-468 mg/kg <sup>[1]</sup>		
	тохісіту	IRRITATION	
tartaric acid	dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>	Not Available	
	Oral (Rat) LD50: >=2000<=5000 mg/kg <sup>[1]</sup>		
	τοχιςιτγ	IRRITATION	
glass powder	Not Available	Not Available	
	тохісіту	IRRITATION	
	Dermal (rabbit) LD50: >2000 mg/kg <sup>[1]</sup>	Eye: adverse effect observed (irreversible damage) $^{\left[ 1 ight] }$	
acrylic acid homopolymer	Inhalation(Rat) LC50: >5.1 mg/l4h <sup>[1]</sup>	Skin: no adverse effect observed (not irritating) <sup>[1]</sup>	
	Oral (Rat) LD50: 146-468 mg/kg <sup>[1]</sup>		

	Convulsions, haemorrhage recorded.
	for simple alpha-hydroxy carboxylic acids and their salts:
	The US Food and Drug Administration (FDA) received a total of 114 adverse dermatologic experience reports for alpha-hydroxy acids (AHA)-
	containing skin care products between 1992 and February 2004, with the maximum number in 1994. The reported adverse experiences included
	burning (45), dermatitis or rash (35), swelling (29), pigmentary changes (15), blisters or welts (14), skin peeling (13), itching (12), irritation or
	tenderness (8), chemical burns (6), and increased sunburn (3). The frequency of such reports for skin exfoliating products that contain AHAs has
	been considerably lower in subsequent years. The more serious adverse reactions appear to occur most often with products that cause the
	greatest degree of exfoliation, such as "skin peelers."
	Various studies confirmed previous industry studies indicating that applying AHAs to the skin results in increased UV sensitivity. After four weeks
	of AHA application, volunteers' sensitivity to skin reddening produced by UV increased by 18 percent. Similarly, the volunteers' sensitivity to
	UV-induced cellular damage doubled, on average, with considerable differences among individuals. Topical glycolic acid enhances photodamage
	by ultraviolet light.
	However, the studies also indicated that this increase in sensitivity is reversible and does not last long after discontinuing use of the AHA cream.
	One week after the treatments were halted, researchers found no significant differences in UV sensitivity among the various skin sites.
TARTARIC ACID	Most AHAs are physiologic, natural, and non-toxic substances. All members of the group promote normal keratinization and desquamation.
	Those with multiple hydroxyl groups are moisturizing antioxidants, and are especially gentle for sensitive skin.
	The studies did not identify exactly how AHAs bring about the increased UV sensitivity, although the effects did not appear to involve dramatic
	increases in UV-induced damage to DNA in the skin.
	Previous FDA studies have indicated that a cosmetic-type cream base caused an AHA to penetrate more deeply into the skin when compared to
	an AHA solution without the usual cosmetic ingredients. However, further studies will be needed to learn how much, if at all, those cosmetic-type
	ingredients influence the AHA-related effects on UV sensitivity.
	The toxicology of simple alpha hydroxy carboxylic acids cluster is characterised by five compounds sharing the functional group defining the
	cluster name
	Experimental data available for members of the simple alpha-hydroxy carboxylic acids indicate a low acute, repeated-dose, reproductive and
	developmental toxicity.
	The simple alpha hydroxy carboxylic acids are eye and skin irritants but are not expected to be skin sensitisers.
	Genotoxicity test data for two cluster members and a cancer bioassay for the calcium salt of propanoic acid, 2-hydroxy- yielded negative results
	and all other cluster members are considered to have little or no mutagenic or carcinogenic potential.
	Acute oral toxicity of propanoic acid, 2-hydroxy- (2S)- (79-33-4) and propanoic acid, 2-hydroxy- (50-21-5) are low. The repeated-dose and

Mutagenicity 🗙

# **Riva Silver Capsules**

	developmental toxicity of the three tested simple alpha		
	toxicity testing for propanoic acid, 2-hydroxy- (50-21-5 metabolism. Reproductive toxicity of acetic acid, 2-hy associated potassium salts is also expected to be low propanoic acid, 2-hydroxy- (2S)- (79-33-4) and propan of this cluster are not expected to be skin sensitisers I propanoic acid, 2-hydroxy- (2S)- (79-33-4). Genotoxic negative, indicating that none of the cluster members acid, 2-hydroxy- (50-21-5) in rats showed no evidence relationship considerations indicate little or no carcino and lack of genotoxic structural alert. This judgment is hydroxy- (50-21-5), which is considered a reasonable Some products containing alpha-hydroxy acids (AHAs discolorations. Among these are some products mark acids and are designed to remove the outer layer of th	droxy- (79-14-1) has been tested and Alpha-hydroxy carboxylic acids are an noic acid, 2-hydroxy- (50-21-5) all pro- based on negative results in guinea pi ity data for acetic acid, 2-hydroxy-(79) are expected to be genotoxic. A 2-yea e of carcinogenicity. An expert judgme igenic potential for any of the cluster in analogue to the rest of the cluster. s) have been marketed for uses such eted as "skin peelers," which may cor	was found to be low. Low reproductive toxicity of the severe eye irritants. Acetic acid, 2-hydroxy- (79-14-1), duced positive skin irritation in rabbits. The members gs for both acetic acid, 2-hydroxy- (79-14-1) and -14-1) and propanoic acid, 2-hydroxy- (50-21-5) are ar drinking water study of the calcium salt of propanoic nt based on mechanism-based structure-activity nembers due to expected rapid metabolism/excretion d mutagenicity data for propanoic acid, 2- as treating acne, removing scars, and lightening
glass powder	No significant acute toxicological data identified in lite	rature search.	
ACRYLIC ACID HOMOPOLYMER & TARTARIC ACID	Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. On the other hand, industrial bronchitis is a disorder that occurs as a result of exposure due to high concentrations of irritating substance (often particles) and is completely reversible after exposure ceases. The disorder is characterized by difficulty breathing, cough and mucus production.		
ACRYLIC ACID HOMOPOLYMER	result of exposure due to high concentrations of irritating substance (often particles) and is completely reversible after exposure ceases. The		
Acute Toxicity	×	Carcinogenicity	×
Skin Irritation/Corrosion	*	Reproductivity	×
Serious Eye Damage/Irritation	¥	STOT - Single Exposure	✓
Respiratory or Skin sensitisation	×	STOT - Repeated Exposure	×
Martana	V	A	✓

Aspiration Hazard 🗙

Legend: X – Data either not available or does not fill the criteria for classification

Data available to make classification

### 11.2 Information on other hazards

### 11.2.1. Endocrine disrupting properties

No evidence of endocrine disrupting properties were found in the current literature.

11.2.2. Other information

See Section 11.1

### **SECTION 12 Ecological information**

### 12.1. Toxicity

	Endpoint	Test Duration (hr)	Species	Value	Source
Riva Silver Capsules	Not Available	Not Available	Not Available	Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Species Value	
	EC50	72h	Algae or other aquatic plants	0.13-0.205mg/l	2
acrylic acid homopolymer	EC50	48h	Crustacea	Crustacea 47mg/l	
	EC10(ECx)	72h	Algae or other aquatic plants	0.03-0.031mg/l	2
	LC50	96h	Fish	27mg/l	2
	Endpoint	Test Duration (hr)	Species	Value	Sourc
	EC50	72h	Algae or other aquatic plants	Algae or other aquatic plants 51.404mg/l	
	EC50	48h	Crustacea	Crustacea 93.313mg/l	
tartaric acid	EC50	96h	Algae or other aquatic plants	23616mg/L	2
	NOEC(ECx)	72h	Algae or other aquatic plants	Algae or other aquatic plants 3.125mg/l	
	LC50	96h	Fish >100mg/l		2
	Endpoint	Test Duration (hr)	Species	Value	Source
glass powder	Not Available	Not Available	Not Available	Not Available	Not Availabl
	Endpoint	Test Duration (hr)	Species	Value	Sourc
	EC50	72h	Algae or other aquatic plants	0.13-0.205mg/l	2
acrylic acid homopolymer	EC50	48h	Crustacea	47mg/l	2
	EC10(ECx)	72h	Algae or other aquatic plants	0.03-0.031mg/l	2
	LC50	96h	Fish	27mg/l	2
Legend:	Ecotox databas		CHA Registered Substances - Ecotoxicological Inform C Aquatic Hazard Assessment Data 6. NITE (Japan) -		

### DO NOT discharge into sewer or waterways.

### 12.2. Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
acrylic acid homopolymer	LOW	LOW
tartaric acid	LOW	LOW
acrylic acid homopolymer	LOW	LOW

### 12.3. Bioaccumulative potential

Ingredient	Bioaccumulation
acrylic acid homopolymer	LOW (LogKOW = 0.4415)
tartaric acid	LOW (LogKOW = -1.0017)
acrylic acid homopolymer	LOW (LogKOW = 0.4415)

### 12.4. Mobility in soil

Ingredient	Mobility
acrylic acid homopolymer	HIGH (KOC = 1.201)
tartaric acid	HIGH (KOC = 1)
acrylic acid homopolymer	HIGH (KOC = 1.201)

### 12.5. Results of PBT and vPvB assessment

Р

Т

Continued...

	Р	В	т	
Relevant available data	Not Available	Not Available	Not Available	
PBT	×	×	X	
vPvB	×	×	×	
	·	·		
PBT Criteria fulfilled?			No	
vPvB			No	

### 12.6. Endocrine disrupting properties

No evidence of endocrine disrupting properties were found in the current literature.

### 12.7. Other adverse effects

No evidence of ozone depleting properties were found in the current literature.

### **SECTION 13 Disposal considerations**

13.1. Waste treatment methods	
Product / Packaging disposal	<ul> <li>DO NOT allow wash water from cleaning or process equipment to enter drains.</li> <li>It may be necessary to collect all wash water for treatment before disposal.</li> <li>In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</li> <li>Where in doubt contact the responsible authority.</li> <li>Consult State Land Waste Management Authority for disposal.</li> <li>Bury residue in an authorised landfill.</li> </ul>
Waste treatment options	Not Available
Sewage disposal options	Not Available

### **SECTION 14 Transport information**

Labels Required		
Marine Pollutant	NO	
HAZCHEM	Not Applicable	

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

14.1. UN number or ID number	Not Applicable		
14.2. UN proper shipping name	Not Applicable		
14.3. Transport hazard class(es)		ot Applicableot Applicable	
14.4. Packing group	Not Applicable		
14.5. Environmental hazard	Not Applicable		
14.6. Special precautions for user	Hazard identification (Kem		
	Classification code	Not Applicable	
	Hazard Label	Not Applicable	
	Special provisions	Not Applicable	
	Limited quantity	Not Applicable	
	Tunnel Restriction Code	Not Applicable	

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

14.1. UN number	Not Applicable			
14.2. UN proper shipping name	Not Applicable			
	ICAO/IATA Class	Not Applicable		
14.3. Transport hazard class(es)	ICAO / IATA Subsidiary Hazard	Not Applicable		
Class(55)	ERG Code	Not Applicable		
14.4. Packing group	Not Applicable			
14.5. Environmental hazard	Not Applicable			
14.6. Special precautions for user	Special provisions Cargo Only Packing Instructions Cargo Only Maximum Qty / Pack Passenger and Cargo Packing In		Not Applicable Not Applicable Not Applicable Not Applicable	

Passenger and Cargo Maximum Qty / Pack	Not Applicable
Passenger and Cargo Limited Quantity Packing Instructions	Not Applicable
Passenger and Cargo Limited Maximum Qty / Pack	Not Applicable

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

14.1. UN number	Not Applicable		
14.2. UN proper shipping name	Not Applicable		
14.3. Transport hazard class(es)	IMDG Class     Not Applicable       IMDG Subsidiary Hazard     Not Applicable		
14.4. Packing group	Not Applicable		
14.5 Environmental hazard	Not Applicable		
14.6. Special precautions for user	EMS NumberNot ApplicableSpecial provisionsNot ApplicableLimited QuantitiesNot Applicable		

### Inland waterways transport (ADN): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number	Not Applicable		
14.2. UN proper shipping name	Not Applicable		
14.3. Transport hazard class(es)	Not Applicable Not Applicable		
14.4. Packing group	Not Applicable		
14.5. Environmental hazard	Not Applicable		
14.6. Special precautions for user	Classification codeNot ApplicableSpecial provisionsNot ApplicableLimited quantityNot ApplicableEquipment requiredNot ApplicableFire cones numberNot Applicable		

### 14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code Not Applicable

### 14.7.2. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
acrylic acid homopolymer	Not Available
tartaric acid	Not Available
glass powder	Not Available
acrylic acid homopolymer	Not Available

### 14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
acrylic acid homopolymer	Not Available
tartaric acid	Not Available
glass powder	Not Available
acrylic acid homopolymer	Not Available

# **SECTION 15 Regulatory information**

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

### acrylic acid homopolymer is found on the following regulatory lists

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

### tartaric acid is found on the following regulatory lists

Great Britain GB Biocidal Active Substances

### glass powder is found on the following regulatory lists

Not Applicable

### acrylic acid homopolymer is found on the following regulatory lists

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

### Additional Regulatory Information

#### Not Applicable

This safety data sheet is in compliance with the following EU legislation and its adaptations - as far as applicable - : Directives 98/24/EC, - 92/85/EEC, - 94/33/EC, - 2008/98/EC, - 2010/75/EU; Commission Regulation (EU) 2020/878; Regulation (EC) No 1272/2008 as updated through ATPs.

### Information according to 2012/18/EU (Seveso III):

#### 15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

### **National Inventory Status**

National Inventory	Status	
Australia - AIIC / Australia Non-Industrial Use	Yes	
Canada - DSL	Yes	
Canada - NDSL	No (acrylic acid homopolymer; tartaric acid; acrylic acid homopolymer)	
China - IECSC	Yes	
Europe - EINEC / ELINCS / NLP	No (acrylic acid homopolymer; acrylic acid homopolymer)	
Japan - ENCS	Yes	
Korea - KECI	/es	
New Zealand - NZIoC	Yes	
Philippines - PICCS	Yes	
USA - TSCA	Yes	
Taiwan - TCSI	Yes	
Mexico - INSQ	Yes	
Vietnam - NCI	Yes	
Russia - FBEPH	Yes	
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.	

### **SECTION 16 Other information**

Revision Date	10/03/2023
Initial Date	15/12/2015

### Full text Risk and Hazard codes

H411 Toxic to

Toxic to aquatic life with long lasting effects.

### **SDS Version Summary**

Version	Date of Update	Sections Updated
6.1	23/12/2022	Classification review due to GHS Revision change.
7.1	10/03/2023	Classification change due to full database hazard calculation/update.

### 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.

For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:

EN 166 Personal eye-protection

EN 340 Protective clothing

EN 374 Protective gloves against chemicals and micro-organisms

EN 13832 Footwear protecting against chemicals

EN 133 Respiratory protective devices

### 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
- ES: Exposure Standard
- OSF: Odour Safety Factor
   NOAEL: No Observed Adverse Effect Level
- LOAEL: Lowest Observed Adverse Effect Level
- TLV: Threshold Limit Value

end of SDS

- ▶ LOD: Limit Of Detection
- OTV: Odour Threshold Value
- BCF: BioConcentration Factors
- BEI: Biological Exposure Index
- DNEL: Derived No-Effect Level
- PNEC: Predicted no-effect concentration
- AIIC: Australian Inventory of Industrial Chemicals
- DSL: Domestic Substances List
- NDSL: Non-Domestic Substances List
- IECSC: Inventory of Existing Chemical Substance in China
   EINECS: European INventory of Existing Commercial chemical Substances
- ۶ ELINCS: European List of Notified Chemical Substances
- ۲ NLP: No-Longer Polymers
- ۲ ENCS: Existing and New Chemical Substances Inventory
- KECI: Korea Existing Chemicals Inventory NZIoC: New Zealand Inventory of Chemicals ۶
- ۲
- ۶ PICCS: Philippine Inventory of Chemicals and Chemical Substances
- ۲ TSCA: Toxic Substances Control Act
- TCSI: Taiwan Chemical Substance Inventory
- INSQ: Inventario Nacional de Sustancias Químicas
- ۶ NCI: National Chemical Inventory
- FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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:

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