

Riva Light Cure (powder)

SDI Limited

Version No: **5.1.1.1**Safety Data Sheet (Conforms to Regulations (EC) No 2015/830)

Issue Date: 18/03/2016 Print Date: 30/03/2016 Initial Date: Not Available L.REACH.GBR.EN

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1.Product Identifier

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

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

Relevant identified uses	Powder for the making of dental restorative cement by dental professionals, when mixed with Riva Light Cure liquid.
Uses advised against	Not Applicable

1.3. Details of the supplier of the safety data sheet

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	SDI (North America) Inc.	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			

1.4. Emergency telephone number

Association / Organisation	SDI Limited	Not Available	Not Available
Emergency telephone numbers	+61 3 8727 7111	Not Available	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 HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Not considered a dangerous mixture according to directive 1999/45/EC, Reg. (EC) No 1272/2008 (if applicable) and their amendments. Not classified as Dangerous Goods for transport purposes.

DSD classification	In case of mixtures, classification has been prepared by following DPD (Directive 1999/45/EC) and CLP Regulation (EC) No 1272/2008 regulations
DPD classification	Not Applicable
Classification according to regulation (EC) No 1272/2008 [CLP]	Not Applicable

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2.2. Label elements

Not Applicable
NOT APPLICABLE

Hazard statement(s)

Not Applicable

Supplementary statement(s)

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

2.3. Other hazards

Ingestion may produce health damage*.

May produce discomfort of the eyes, respiratory tract and skin*.

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	Classification according to directive 67/548/EEC [DSD]	Classification according to regulation (EC) No 1272/2008 [CLP]
1.Not Available 2.Not Available 3.Not Available 4.Not Available		95-100	glass powder	Not Applicable	Not Applicable
	Legend:	Classification by vendor; 2. Classification drawn from EC Directive 67/548/EEC - Annex I; 3. Classification drawn from EC Directive 1272/2008 - Annex VI Classification drawn from C&L			

SECTION 4 FIRST AID MEASURES

4.1. Description of first aid measures

4.1. Description of first aid	d measures
General	If skin or hair contact occurs: Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation. 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. If the furnes or combustion products are inhaled remove from contaminated area. Seek medical attention. 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.
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.

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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.			
5.3. Advice for firefighters				
Fire Fighting	 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. 			
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

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

Minor 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.
Major Spills	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.

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	 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. 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.
Fire and explosion protection	See section 5

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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.

7.2. 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.

7.3. Specific end use(s)

See section 1.2

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

DERIVED NO EFFECT LEVEL (DNEL)

Not Available

PREDICTED NO EFFECT LEVEL (PNEC)

Not Available

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Not Available						

EMERGENCY LIMITS

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

8.2. Exposure controls

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 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.

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.

- ► 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.
- 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.

8.2.1. Appropriate engineering controls

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.

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8.2.2. Personal 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 Eye and face protection 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 **Body protection** See Other protection below Overalls. ▶ P.V.C. apron. Other protection 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(All 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)

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	Fine white powder, insoluble in water.		
Physical state	Divided Solid	Relative density (Water = 1)	Not Available
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

9.2. Other information

Not Available

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SECTION 10 STABILITY AND REACTIVITY

10.1.Reactivity	See section 7.2
10.2.Chemical stability	Unstable in the presence of incompatible materials. Product is considered stable. 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

1. Information on toxic		
Inhaled	Limited evidence or practical experience suggests that the material may produce irritation of the following inhalation. In contrast to most organs, the lung is able to respond to a chemical insult the damage. The repair process, which initially evolved to protect mammalian lungs from foreign damage resulting in the impairment of gas exchange, the primary function of the lungs. Respire involving the recruitment and activation of many cell types, mainly derived from the vascular syste Persons with impaired respiratory function, airway diseases and conditions such as emphysem concentrations of particulate are inhaled. If prior damage to the circulatory or nervous systems has occurred or if kidney damage has bee individuals who may be exposed to further risk if handling and use of the material result in excessive exposures.	by first removing or neutralising the irritant and then repairing matter and antigens, may however, produce further lung story tract irritation often results in an inflammatory response em. a or chronic bronchitis, may incur further disability if excessive
Ingestion	Accidental ingestion of the material may be damaging to the health of the individual.	
Skin Contact	Limited evidence exists, or practical experience predicts, that the material either produces inflan following direct contact, and/or produces significant inflammation when applied to the healthy in being present twenty-four hours or more after the end of the exposure period. Skin irritation may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic the skin (spongiosis) and intracellular oederma of the epidermis. 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, r skin prior to the use of the material and ensure that any external damage is suitably protected.	act skin of animals, for up to four hours, such inflammation also be present after prolonged or repeated exposure; this may redness (erythema) and swelling (oedema) which may level there may be intercellular oedema of the spongy layer of
	Limited evidence exists, or practical experience suggests, that the material may cause eye irrita	tion in a substantial number of individuals and/or is expected to
Eye	produce significant ocular lesions which are present twenty-four hours or more after instillation eye contact may cause inflammation characterised by temporary redness (similar to windburn) and/or other transient eye damage/ulceration may occur.	nto the eye(s) of experimental animals. Repeated or prolonged
Eye	produce significant ocular lesions which are present twenty-four hours or more after instillation eye contact may cause inflammation characterised by temporary redness (similar to windburn)	nto the eye(s) of experimental animals. Repeated or prolonged of the conjunctiva (conjunctivitis); temporary impairment of vision as classified by EC Directives using animal models); moconiosis) caused by particles less than 0.5 micron
Chronic	produce significant ocular lesions which are present twenty-four hours or more after instillation eye contact may cause inflammation characterised by temporary redness (similar to windburn) and/or other transient eye damage/ulceration may occur. Long-term exposure to the product is not thought to produce chronic effects adverse to health (nevertheless exposure by all routes should be minimised as a matter of course. Long term exposure to high dust concentrations may cause changes in lung function (i.e. pneu)	nto the eye(s) of experimental animals. Repeated or prolonged of the conjunctiva (conjunctivitis); temporary impairment of vision as classified by EC Directives using animal models); moconiosis) caused by particles less than 0.5 micron
<u> </u>	produce significant ocular lesions which are present twenty-four hours or more after instillation eye contact may cause inflammation characterised by temporary redness (similar to windburn) and/or other transient eye damage/ulceration may occur. Long-term exposure to the product is not thought to produce chronic effects adverse to health (nevertheless exposure by all routes should be minimised as a matter of course. Long term exposure to high dust concentrations may cause changes in lung function (i.e. pneu penetrating and remaining in the lung. A prime symptom is breathlessness. Lung shadows should be minimised as a matter of course.	nto the eye(s) of experimental animals. Repeated or prolonged of the conjunctiva (conjunctivitis); temporary impairment of vision as classified by EC Directives using animal models); moconiosis) caused by particles less than 0.5 micron v on X-ray.
Chronic	produce significant ocular lesions which are present twenty-four hours or more after instillation eye contact may cause inflammation characterised by temporary redness (similar to windburn) and/or other transient eye damage/ulceration may occur. Long-term exposure to the product is not thought to produce chronic effects adverse to health (nevertheless exposure by all routes should be minimised as a matter of course. Long term exposure to high dust concentrations may cause changes in lung function (i.e. pneu penetrating and remaining in the lung. A prime symptom is breathlessness. Lung shadows should be minimised as a matter of course.	nto the eye(s) of experimental animals. Repeated or prolonged of the conjunctiva (conjunctivitis); temporary impairment of vision as classified by EC Directives using animal models); moconiosis) caused by particles less than 0.5 micron on X-ray.
Chronic Riva Light Cure (powder)	produce significant ocular lesions which are present twenty-four hours or more after instillation eye contact may cause inflammation characterised by temporary redness (similar to windburn) and/or other transient eye damage/ulceration may occur. Long-term exposure to the product is not thought to produce chronic effects adverse to health (nevertheless exposure by all routes should be minimised as a matter of course. Long term exposure to high dust concentrations may cause changes in lung function (i.e. pneu penetrating and remaining in the lung. A prime symptom is breathlessness. Lung shadows should be minimised as a matter of course. TOXICITY Not Available 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained	nto the eye(s) of experimental animals. Repeated or prolonged of the conjunctiva (conjunctivitis); temporary impairment of vision as classified by EC Directives using animal models); moconiosis) caused by particles less than 0.5 micron v on X-ray.
Chronic Riva Light Cure (powder) Legend:	produce significant ocular lesions which are present twenty-four hours or more after instillation eye contact may cause inflammation characterised by temporary redness (similar to windburn) and/or other transient eye damage/ulceration may occur. Long-term exposure to the product is not thought to produce chronic effects adverse to health (nevertheless exposure by all routes should be minimised as a matter of course. Long term exposure to high dust concentrations may cause changes in lung function (i.e. pneupenetrating and remaining in the lung. A prime symptom is breathlessness. Lung shadows should be minimised as a matter of course. TOXICITY IRRITATION Not Available 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained extracted from RTECS - Register of Toxic Effect of chemical Substances	nto the eye(s) of experimental animals. Repeated or prolonged of the conjunctiva (conjunctivitis); temporary impairment of vision as classified by EC Directives using animal models); moconiosis) caused by particles less than 0.5 micron v on X-ray.
Chronic Riva Light Cure (powder) Legend: Acute Toxicity	produce significant ocular lesions which are present twenty-four hours or more after instillation eye contact may cause inflammation characterised by temporary redness (similar to windburn) and/or other transient eye damage/ulceration may occur. Long-term exposure to the product is not thought to produce chronic effects adverse to health (nevertheless exposure by all routes should be minimised as a matter of course. Long term exposure to high dust concentrations may cause changes in lung function (i.e. pneu penetrating and remaining in the lung. A prime symptom is breathlessness. Lung shadows should be minimised as a matter of course. TOXICITY Not Available 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained extracted from RTECS - Register of Toxic Effect of chemical Substances Carcinogenicity	nto the eye(s) of experimental animals. Repeated or prolonged of the conjunctiva (conjunctivitis); temporary impairment of vision as classified by EC Directives using animal models); moconiosis) caused by particles less than 0.5 micron or on X-ray.
Chronic Riva Light Cure (powder) Legend: Acute Toxicity Skin Irritation/Corrosion Serious Eye	produce significant ocular lesions which are present twenty-four hours or more after instillation eye contact may cause inflammation characterised by temporary redness (similar to windburn) and/or other transient eye damage/ulceration may occur. Long-term exposure to the product is not thought to produce chronic effects adverse to health (nevertheless exposure by all routes should be minimised as a matter of course. Long term exposure to high dust concentrations may cause changes in lung function (i.e. pneupenetrating and remaining in the lung. A prime symptom is breathlessness. Lung shadows should be minimised as a matter of course. TOXICITY IRRITATION Not Available 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained extracted from RTECS - Register of Toxic Effect of chemical Substances Carcinogenicity Reproductivity	nto the eye(s) of experimental animals. Repeated or prolonged of the conjunctiva (conjunctivitis); temporary impairment of vision as classified by EC Directives using animal models); moconiosis) caused by particles less than 0.5 micron or on X-ray.

✓ – Data available but does not fill the chicks.
 ✓ – Data required to make classification available

O - Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

12.1. Toxicity

Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source
Not Available	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

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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.

12.2. Persistence and degradability

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

12.3. Bioaccumulative potential

Ingredient	Bioaccumulation
	No Data available for all ingredients

12.4. Mobility in soil

Ingredient	Mobility
	No Data available for all ingredients

12.5. Results of PBT and vPvB assessment

	P	В	Т
Relevant available data	Not Available	Not Available	Not Available
PBT Criteria fulfilled?	Not Available	Not Available	Not Available

12.6. Other adverse effects

No data available

SECTION 13 DISPOSAL CONSIDERATIONS

13.1. 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.
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	Not Applicable	
14.2.Packing group	Not Applicable	
14.3.UN proper shipping name	Not Applicable	
14.4.Environmental hazard	Not Applicable	

14.4.Environmental nazard Not Applicat

14.5. Transport hazard class(es)	Class Not Applicable Subrisk Not Applicable
	Hazard identification (Kemler) Not Application

14.6. Special precautions for user

Hazard identification (Kemler)	Not Applicable
Classification code	Not Applicable
Hazard Label	Not Applicable
Special provisions	Not Applicable
Limited quantity	Not Applicable

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

14.1. UN number	Not Applicable
14.2. Packing group	Not Applicable
14.3. UN proper shipping name	Not Applicable

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14.4. Environmental hazard	Not Applicable	
14.5. Transport hazard class(es)	ICAO/IATA Class Not Applicable	
	ICAO / IATA Subrisk Not Applicable	
0.000(00)	ERG Code Not Applicable	
	Special provisions	Not Applicable
	Cargo Only Packing Instructions	Not Applicable
	Cargo Only Maximum Qty / Pack	Not Applicable
14.6. Special precautions for user	Passenger and Cargo Packing Instructions	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. Packing group	Not Applicable
14.3. UN proper shipping name	Not Applicable
14.4. Environmental hazard	Not Applicable
14.5. Transport hazard class(es)	IMDG Class Not Applicable IMDG Subrisk Not Applicable
14.6. Special precautions for user	EMS Number Not Applicable Special provisions Not Applicable Limited Quantities Not Applicable

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

14.1. UN number	Not Applicable
14.2. Packing group	Not Applicable
14.3. UN proper shipping name	Not Applicable
14.4. Environmental hazard	Not Applicable
14.5. Transport hazard class(es)	Not Applicable Not Applicable
	Classification code Not Applicable
	Special provisions Not Applicable
14.6. Special precautions for user	Limited quantity Not Applicable
	Equipment required Not Applicable
	Fire cones number Not Applicable

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

Not Applicable

SECTION 15 REGULATORY INFORMATION

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

This safety data sheet is in compliance with the following EU legislation and its adaptations - as far as applicable - : 67/548/EEC, 1999/45/EC, 98/24/EC, 92/85/EC, 94/33/EC, 91/689/EEC, 1999/13/EC, Commission Regulation (EU) 2015/830, Regulation (EC) No 1272/2008 and their amendments as well as the following British legislation: - The Control of Substances Hazardous to Health Regulations (COSHH) 2002 - COSHH Essentials - The Management of Health and Safety at Work Regulations 1999

15.2. Chemical safety assessment

For further information please look at the Chemical Safety Assessment and Exposure Scenarios prepared by your Supply Chain if available.

ECHA SUMMARY

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
Canada - NDSL	Y
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	Y

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Japan - ENCS	Y
Korea - KECI	Y
New Zealand - NZIoC	Y
Philippines - PICCS	Υ
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

Full text Risk and Hazard codes

Other information

DSD / DPD label elements

Not Applicable

Relevant risk statements are found in section 2.1

Indication(s) of danger Not Applicable

SAFETY ADVICE

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

 ${\sf PC-TWA} : {\sf Permissible\ Concentration-Time\ Weighted\ Average}$

 ${\sf PC-STEL} : {\sf Permissible Concentration-Short Term Exposure Limit}$

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:

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

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